



AFRICAN LEADER IN ENERGY & INFRASTRUCTURE

Sustainable
 climate change
 import substitution
 stakeholders
ESG
 reverse immigration
 responsible investing
 inclusion shared value planet
 shifting value chains
 responsible investing
supply gaps
 adjustment navigating realignment
 prosperity
shifting
 landscape
food security
 determination competitive reengineering debt restructuring
 unleashing potential
landscapes
 building forward
paradigm shifts
 restructuring journey water security

Agility
 resource efficiency
 countless opportunities
Growth
 carbon footprint advantage
new roles
 social development
 building forward
paradigm shifts
 restructuring journey water security

diversification
win-win
 resolve energy security
 diversity partnerships
 economic growth
 Renewable energy
 environmental sustainability
SDG's
 sustainability champion
 manufacturing hubs
Resilience
 innovat
people
 human development
 import substitution
green recovery
 milestones
 shifting landscape
energy transition

QALAA HOLDINGS
COMMUNICATION ON PROGRESS 2022
 JANUARY – DECEMBER 2022

CONTENTS

Chairman's Note	03
Qalaa Holdings at a Glance	06
Progress Through Sustainability	08
Description of Actions – Wholistically Driving Sustainability and UNGC Principles	12
ESG Integration - Weaving the Triple Bottom Line into Our Business	16
Decarbonization Plans and Target Setting	26

Chairman's Note



As members of the UN Global Compact (UNGC), our vision falls in line with the international best practices outlined by the UNGC as well as the UN Sustainable Development Goals (SDGs).

To our stakeholders,

I am extremely pleased to report that Qalaa Holdings, one of the first regional adopters of a multifaceted business and investment strategy positioning sustainability and environmental protection at its core, continues to be at the forefront of green and sustainable investments. For over a decade, we have successfully leveraged our triple bottom line strategy to create and invest in a diverse selection of businesses spanning a variety of sectors, as we strive to promote sustainable economic growth across Egypt and throughout Africa. Since our inception, Qalaa has worked towards ensuring that our investments are conducted in a responsible manner, and having a positive impact on the economic, environmental, and social spheres remains at the top of our priorities.

As members of the UN Global Compact (UNGC), our vision falls in line with the international best practices outlined by the UNGC as well as the UN Sustainable Development Goals (SDGs). On that front, we remain firm supporters of the compact's ten principles, which are set in place to benefit employers and employees. In accordance with the Group's vision, Qalaa Holdings and its subsidiaries administer and fully comply with codes of conduct, procedures, and regulations that are aligned with the principles drafted by the UNGC

covering the four fundamental areas of Human Rights, Labor, Environment, and Anti-Corruption. Our consistent efforts and achievements continue to showcase our dedication towards having a positive and sustainable impact on our operations, our people, and our surrounding communities.

After passing through one of the most challenging periods that economies, societies, and businesses around the world have had to endure following the onset of the COVID-19 pandemic, the global economy is now faced with a new challenge brought upon by the Russo-Ukrainian conflict. As a result of the conflict, macroeconomic challenges brought upon by the COVID-19 pandemic have been exacerbated, and nations worldwide are currently facing global supply chain issues stemming from trade route disruptions worldwide, in addition to elevated inflation rates across the globe.

Nevertheless, I once again reiterate my confidence in our ability to overcome these setbacks. Such challenges create unforeseen opportunities for those who are agile enough to react quickly through incorporating a more efficient business model. While the current conflict is a tragedy that has destroyed countless lives, the crisis has also underscored the

importance of maintaining access to reliable and affordable energy, creating further opportunities for our Group.

Heading further into the post-pandemic era, new global trends and norms are driving renewed economic dynamism across the globe, with change tapping everything from manufacturing and agriculture to energy and climate change. This level of change has turned resilience into a fundamental and critical characteristic. However, we are no strangers to change, and our prudent investment strategy has seen us overcome various transformative periods in the past. We have successfully navigated a global financial crisis, revolutions and severe political turmoil, as well as a local currency crisis, to name a few. As the world recalibrates following the pandemic, and adjusts to the Russo-Ukraine conflict, I am confident that we will manage to successfully navigate this period as well, with Qalaa being ideally placed to make the most of the global events currently unfolding.

I am extremely proud of Qalaa's resiliency and ability to continue driving forward with our portfolio growth strategies during a period of heavy economic uncertainty. The Group's success is a testament to the success of our investment thesis, and our success in not only steadying the ship, but also emerging as a stronger, leaner, and more efficient organization leads me to reaffirm my optimism for our future.

Qalaa Holdings' 2022 Communication on Progress (COP) showcases a selection of our most important sustainability efforts and activities. We are committed to sharing this report, as well as the relevant information with all our stakeholders and public audiences via our main communication channels. We also reaffirm our commitment to the UNGC and its message throughout the upcoming year.

Notable Highlights

While the global push towards tackling climate change and achieving net-zero emissions by 2050 will continue driving additional demand and investments for solar and renewable energy, this transition will not be easy. If the world is to achieve net-zero emissions by 2050 this will require a joint effort by businesses worldwide in reimagining how we power not just our businesses, but the entire energy ecosystem. On that front, Qalaa is already at the forefront of green and sustainable investments. Our commitment towards this green transition was evidenced by our heavy participation at the COP27 UN Climate Change Conference. During the conference, Qalaa held ten different panel discussions focusing on the Group's efforts and initiatives in the field of sustainability.

The importance and magnitude of the fight against climate change, coupled with higher financing costs due to the

current elevated interest rate environment will ultimately increase the price of solar energy. This will benefit TAQA Arabia which currently operates a 65 MW solar power plant in Benban, Aswan. The company is also pushing forward with several solar energy generation projects across various locations in Egypt, and has finalized an agreement with EBRD to finance a 7MW solar photovoltaic power plant in El Minya. At Qalaa, we acknowledge the fact that combatting climate change is no easy feat and requires a genuine effort by both governments and the private sector. As such, we are wholeheartedly committed to playing an active role, and I am proud of Qalaa's unwavering dedication towards consistently investing in renewable energy ventures, reducing its carbon footprint, and minimizing emissions across all subsidiaries. Furthermore, Qalaa is committed to continuously decarbonizing and substituting traditional energy sources currently present in our portfolio mix, replacing them with alternative, more sustainable sources.

We will continue utilizing all the tools and capital necessary to align our sustainability goals with our financial wellbeing, while simultaneously making use of green conditioned financing to expand our renewables portfolio, agri-carbon sequestration, dual-fueling, metal-grade virtual CNG solutions, water desalination, and solar hydrogen, all while carefully assessing and managing risks. However, the efforts of Qalaa alone are not enough, as private sector solutions need to be backed up by progressive policies that create and promote a suitable investment environment, well-structured bankable projects, investments in infrastructure, private-to-private projects, the introduction of carbon capture tax credit systems, and the involvement of EFIs and DFIs, as well as local bank green conditioned financing.

In addition to these global trends, there are also a number of favorable domestic trends taking place in Egypt. During FY2021-2022, the Egyptian government set aside a budget of EGP 1.25 trillion for infrastructure investments. This budget was earmarked specifically for a selection of projects including the development of the country's universal healthcare system, the transportation network including roads, bridges, the monorail, and national railways, the education system by constructing schools in underserved areas, and expanding the country's water network. This increased spending on infrastructure will create huge opportunities for O&M companies to help maintain new assets across a variety of sectors. Furthermore, the government's efforts in narrowing the country's trade deficit will include policies and reforms that support local manufacturing. On these fronts, ASEC Holding is ideally positioned to capture any new opportunities. Egypt's underlying fundamentals work both in its favor and in Qalaa's favor as well. Egypt has a growing population of over 105 million citizens of which more than 50% are between

the ages of 15 and 64, coupled with an increasingly resilient economy that has experienced substantial reforms over the past years. Furthermore, the country's GDP continues to grow at a rate above the global average. This, coupled with Qalaa's leading position in the fields of energy and infrastructure will create significant long-term value as demand and consumption grow across our subsidiaries in line with the needs of a growing economy and an ever-expanding population.

I am extremely pleased with Qalaa's current standing and our ability to make the most out of these materializing trends. Moving forward, we will keep on steadily expanding production across our entire portfolio while simultaneously

making incremental investments in our existing companies such as National Printing's new El Baddar state-of-the-art facility, and ICDP's new cheese production lines. We will also continue pushing forward with our CNG station expansions which are in line with the Egyptian governments strategy of shifting towards more environmentally friendly energy sources.

Ahmed Heikal
Chairman and Founder



Qalaa Holdings at a Glance

Introduction

Qalaa Holdings was founded in 2004 by Ahmed Heikal and Hisham El-Khazindar as a beacon for sustainable investments that paves the way for economic growth in the region. Since then, Qalaa Holdings and its subsidiaries have played an active and prominent role in supporting the Egyptian economy. The Group has also been a consistent promoter of sustainable growth, and has managed its environmental footprint by regularly examining and adjusting its operational efficiency and optimizing resource consumption.

On that front, environmental, social, and governance (ESG) frameworks lie at the core of our multi-pronged investment strategy. Qalaa’s pioneering ESG efforts are delivered through “win-win” partnerships, and fall under the pillars of people, planet, and prosperity, with the goal of supporting our employees, enhancing our communities, and offsetting our environmental impact. As a result of our triple bottom line approach we have managed to accumulate a diverse portfolio of companies covering various strategic sectors that have had a positive impact on markets and economies across Egypt and Africa.

As part of our responsibility to lead by example, we continue to adopt sound, sustainable, efficient, and inclusive practices

throughout our operations. Additionally, we also focus on setting goals and targets that incorporate sustainable and responsible practices into strategic business activities across the Group, its subsidiaries, and its various stakeholders. This commitment has enabled us to resiliently endure the unprecedented disruptions and challenges posed by COVID-19 as well as the fallout of the Russia-Ukraine war.

We remain deeply committed to incorporating international best practices across our operations, and our sustainability efforts are guided by the United Nations Sustainable Development Goals (SDGs). As such, we continuously refine and enhance our practices to ensure full compliance with the SDGs and Egypt’s Vision 2030, especially in the fields of education, human rights, labor, gender equality, governance, and environmental sustainability. Furthermore, as proud members of the United Nations Global Compact (UNGC), we strive to firmly uphold the global compact’s 10 principles and contribute to the collective global action it seeks to achieve. Accordingly, we apply robust codes of conduct, regulations, and procedures that have been drafted in compliance with the principles at the holding and subsidiary levels.

Sustainability and Responsible Investment is in our DNA

2007:

- Qalaa Holdings establishes the Qalaa Holdings Scholarship Foundation (QHSF)

2013:

- ASEC Cement launches program for community development and educational support in Minya

2014:

- Qalaa Holdings joins United Nations Global Compact (UNGC)
- Qalaa Holdings publishes its first Sustainability Report

2015-2017:

- Qalaa Holdings becomes an early adopter of the United Nations Sustainable Development Goals (SDGs)
- 10th anniversary of QHSF, awarding c.200 scholarships since establishment

2020:

- Joins «Business Ambition for 1.5°C» campaign for climate action, among 177 pioneering early adopters of the campaign
- TAQA Arabia CEO Pakinam Kafafi named among Forbes Middle East’s Top 100 Power Businesswomen for her integral role in the development of the company’s growth and its recent push into Egypt’s promising solar energy sector
- Awarded 2019 EGX Sustainability and Corporate Social Responsibility Award and named among Egypt’s top 100 companies on the EGX
- Ghada Hammouda, Qalaa Holdings’ Chief Sustainability and Marketing Officer, named among top 50 regional storytellers on Forbes Middle East Magazine’s list of Most Impactful and Sustainable Marketing and Communications Professionals for her instrumental work in the field
- Egypt and World Economic Forum launch “Closing the Gender Gap Accelerator “, cochaired by private sector representatives, including co-founder of Qalaa Holdings Hisham El-Khazindar
- QHSF announces its 2020–2021 scholarship recipients for the fourteenth consecutive year, despite the challenges facing education due to COVID-19
- Qalaa Holdings participated in the introductory conference for scholarships at Mansoura University
- Qalaa Holdings holds virtual session to underscore the success of its “Mostakbaly for Teachers” program for achieving educational development and skill building, as well as its positive impact on distance learning during COVID-19

2021

- Recognized in Financial Regulatory Authority’s inaugural publication “Sustainability Champions: Leading the Way Forward”
- Qalaa Holdings co-founder Hisham El-Khazindar launches the executive plan for “Bridging the Gender Gap Catalyst” as co-chair of the initiative
- by Amwal El Ghad awards Qalaa Holdings among Top 100 companies
- BT100 awards ERC as a successful investment project for Qalaa Holdings
- ECARU – Qalaa Holdings solid waste subsidiary-named among Forbes top 10 sustainable companies in the MENA region

2022

- Taking part in COP 27 and participating in 10 panel discussions
- QHSF reaches more than 200 scholarship recipients
- ECARU signs cooperation protocol with Axens to Carry Out Technical and Economic studies for a Project of Second-Generation Biofuel (Advanced Bioethanol) and Sustainable Aviation Fuel (SAF) Production



Progress Through Sustainability

Our Sustainability Strategy

At Qalaa Holdings, we create responsible and sustainable businesses that enhance the lives and livelihoods of our employees and communities. To that end, all our investments seek to create long-term value and prosperity for stakeholders who we directly and indirectly impact by our operations.

Our mission revolves around investing in companies that promote sustainable development, economic growth, and job creation in Egypt and across Africa. We work tirelessly to facilitate the delivery of a diverse selection of offerings that include, but are not limited to, producing energy products and services for the benefit of consumers and businesses,

providing businesses with reliable and clean energy alternatives, fuel-efficient transportation solutions, adequate recycled solid waste, and encouraging the utilization of renewable energy and waste management to conserve and add value to natural resources. Additionally, we also grow and produce safe and healthy food, addressing food security needs, as well as help in building critical national infrastructure.

At Qalaa Holdings, we continually prioritize understanding and addressing the needs of our employees and surrounding communities as investments in people and human capital development lie at the heart of our priorities.

Sustainability and Responsible Investment is in our DNA

18

Years of Operation

40,000

Jobs

C. 13,200

Employees

> 80

Businesses Founded and Developed

44

civil society organizations as partners

6

government organizations in Egypt

4.3 ^{USD} _{bn}

refinery to provide environmentally friendly Euro V diesel and refined products for the local market

+13

academic and international organizations

100,000 ^{Tons}

of 100% organic compost from feedstock manure produced annually at Tawazon/ECARU

Our Environmental Scorecard

Production	Consumption	Waste Management
ERC produces Euro V diesel, which will eliminate c. 29% of Egypt’s sulfur dioxide emissions	Dina Farms applies an efficient irrigation system and practices sustainable farming	Tawazon is a full-service solid waste management provider that recycles waste into environmentally friendly alternatives for coal and natural gas
El Baddar uses recycled material in the production of packaging and printing products	ERC employs a closed water circuit and sanitation system to minimize water consumption	

At Qalaa Holdings, we are constantly working on balancing our portfolio and taking steps to accelerate clean energy transition. As a result, our portfolio provides a variety of climate change mitigation solutions with a focus on environmental sustainability and clean energy transition:

- **Sustainable Transportation:** Qalaa’s subsidiaries support sustainable transportation on a number of fronts. TAQA Arabia works towards reducing emissions by making use of Dual Fuel technology, which allows fuel vehicles to run on a Dual Fuel technology mixing both diesel and natural gas simultaneously during the engine’s compression process, thus delivering greater power and efficiency while reducing the truck’s diesel consumption by 30%. Meanwhile Nile Logistics provides Nile River transportation services, a more environmentally friendly alternative transportation method, to link producers, exporters, and importers to local and global markets.
- **Energy Security and Innovative Energy Solutions:** ERC minimizes wasted emissions by converting them into Euro V diesel, considered to be the cleanest fuel of its type in the world, preventing 186,000 tons of sulfur dioxide and 100,357 tons of sulfur from being discharged into Cairo’s air annually, as well as addressing the country’s import substitution needs. In parallel, TAQA’s 65 MW solar power plant in Benban, the largest solar park in the world, played a critical role in achieving Egypt’s 2022 target of generating 20% of its electricity needs through renewable resources. Furthermore, TAQA transmits to and supplies remote off grid customers with natural gas connections through innovate virtual pipeline CNG technology. TAQA

currently provides connections to more than 1.6 million customers across 18 governorates (49 cities) throughout Egypt and is expected to reduce emissions by c.78,000 tons annually in addition to avoidance of 2 million GHG tons per annum from its solar plant.

- **Sustainable Buildings:** GlassRock’s thermal insulation solutions enable the saving up to 40% of the cooling and heating load and the minimization of the global carbon dioxide footprint from heating and cooling while using a calculated percentage of recycled materials. By properly insulated buildings, energy is saved as 80% of a building’s energy needed for heating or cooling can be reduced, extending the asset’s life span.
- **Sustainable Waste Management:** Since 2016, Tawazon/ECARU has been operating at Dina Farms in circular waste management, producing 100% organic compost from feedstocks manure (average 100k tons annually). This serves as a good input in organic farming, decreases reliance on chemical fertilizers, and reduces the water consumption rate by three times when compared to alternative fertilizers. Similarly, El Baddar makes use of recycled papers and material in the production of packaging and printing products, while Tawazon puts in extensive effort in providing cleaner and recycled alternative fuels from waste such as biomass-derived fuel (BDF), solid recovery fuel (SRF) and refuse-derived fuel (RDF) to heavy consumers as a source of thermal energy.
- **Food Security:** Qalaa Holdings’ subsidiary Dina Farms is Egypt and Africa’ largest private sector fully integrated farm, making it a significant contributor to food security.

- **Water Security:** Since Qalaa recognizes the severity of water scarcity, we are currently in the process of finalizing a water policy to address and govern our water usage. Our water policy will be based on four guiding principles: operations' impact measurement and management, engagement, governance and transparency, and collaboration. Furthermore, in 2021, TAQA Arabia announced the launch of a brand-new subsidiary TAQA Water, signaling TAQA Arabia's venture into the field of water treatment & desalination.

Responsible Operations

We are aware that mitigating our environmental impact, and managing our resource management and waste disbursement are crucial for furthering our commitment to the SDGs and overall climate change goals. As such, we have developed a thorough environmental policy that encompasses the full scope of our operations. The policy covers the following:

- **Use of Materials:** To maximize efficiency and ensure sustainability. At Qalaa Holdings, we are careful with our utilization of materials. We make sure that the materials used are allocated in a manner that maximizes efficiency and ensures sustainability.
- **Use of Energy:** To ensure strategic allocation in all sectors. Identifying the different types of energy used by the various sectors enables us to determine whether our use of energy is allocated strategically.
- **Facility Design:** To mitigate negative impact on residential communities and wildlife. The majority of Qalaa Holdings' plants and facilities are set up in industrial areas. Due to the fact that Qalaa Holdings operates in heavy industries, the facilities are designed to guarantee that they have no negative impact on residential and wildlife.

- **Use of Water:** To promote sustainability and invest in efficient use of local resources. Qalaa Holdings is committed to using water resources in a sustainable manner, and to investing in the efficient use of available local resources.
- **Refining Process:** The refining process to produce lighter products such as Euro V diesel at ERC removes sulfur from fuel oil. ERC is thus preventing the release of 100,357 tons of sulfur that are currently being emitted into the air. Accordingly, this represents a reduction of 186,000 tons in annual sulfur dioxide (SO₂) emissions, equating to a 29% reduction in the total amount of SO₂ currently emitted in Egypt from the burning of sulfur-containing fuels, such as fuel oil and diesel.

The Group works continuously towards ensuring that energy efficiency is at the forefront of our operations. To that end, ERC successfully prevents 186,000 tons of SO₂ and 100,357 tons of sulfur from being released into Cairo's air annually. In addition, TAQA Arabia is in the process of tapping the energy efficiency sector, and is working on the design and implementation of energy saving solutions.

With the increased worldwide emphasis on and need for renewable energy services and solutions, Qalaa Holdings' TAQA Arabia and Dina Farms are paving the way in Egypt with new green private-to-private energy projects, establishing a fund with EBRD to construct a solar PV plant in Dina Farms. Qalaa Holdings' subsidiaries have deployed various systems to promote the efficient use of natural resources given their finite nature. On that front, Dina Farms uses an efficient drip irrigation system and adheres to international best practices to ensure the efficient consumption of water.

Qalaa Holdings’ subsidiaries have set up strict waste management policies, with some subsidiaries using waste as an input in the production of a variety of materials, ranging from clean alternative energy (Tawazon) to duplex boards (Shorouk, a subsidiary of National Printing Company). ERC utilizes an environmentally friendly closed-circuit cooling system that makes the best use of a limited supply of water and reuses it efficiently in the cooling process with the aid of cooling towers. ERC also performs upgrades, such as the installation of environmental monitoring equipment at neighboring refinery CORC, as per the contractual agreement between ERC and CORC. Additionally, TAQA has taken significant strides in providing clean energy via mobile CNG and dual fuel.

Responsible Relationships

We are proud of the strength and diversity of our management team, as well as our work environment as a whole, which promotes inclusiveness by celebrating female leaders across our group. On that front, c. 25% of Qalaa Holdings’ board members are women, and 39.1 % of Qalaa’s female employees hold senior management positions. Furthermore, c. 50% of the direct and indirect beneficiaries of our community development initiatives are women. Moreover, Qalaa Holdings is a signatory of the Women Empowerment Principles (WEPs), and has received the WEPs certification for its women empowerment efforts.

The Group was also part of an international network of high-performing companies that are advancing diversity and inclusion in the private sector. Furthermore, our social initiatives have reached c.300,000 direct and indirect beneficiaries to date, including the wide-ranging influence of the Qalaa Holdings Scholarship Foundation (QHSF) which was founded in 2006 and is now Egypt’s largest private sector scholarship foundation.

Qalaa places significant emphasis on the importance of accurate and transparent reporting as part of its adherence to the highest levels of governance and corporate responsibility. Accordingly, we continue to comply with both FRA reporting requirements and ESG reporting standards. Furthermore, in 2014 Qalaa joined UNGC and has been reporting voluntarily about its sustainability and ESG practices ever since.

Leveraging our position as a leader in energy and infrastructure in Egypt and Africa, we continue to create world-class businesses across Egypt and other high-growth markets throughout North and East Africa, in a responsible and sustainable manner. With investments spread across 12 countries, our businesses add value and cater to the needs of over 1.3 billion consumers across our footprint, and we continue to solidify our position as a leading regional energy and infrastructure investor.



Description of Actions – Wholistically Driving Sustainability and UNGC Principles

Human Rights

Respect for human rights is a prerequisite for ethical operations. As such, at Qalaa we uphold complete and ultimate respect for individuals and their rights, working diligently to ensure that this is incorporated into our practices. Our respect for human rights is reflected in our code of conduct, which promotes honesty, integrity, and hard work. In return, Qalaa commits to ensuring that all individuals are treated fairly and respectfully, and that employee rights are fully protected.

We also recognize the importance of appropriate situational awareness. Accordingly, we make sure that countries, governorates, and communities are thoroughly researched prior to the implementation of any of our projects. Once we break ground on a project, we ensure that no human rights are being violated by closely monitor operations and tracking performance across projects.

Labor

At Qalaa Holdings, we prioritize the delivery of complete and legal employee rights in accordance with the relevant laws of its countries of operation. On that front, we provide our people with salaries and wages that facilitate decent living conditions, as well as provide benefits encompassing insurance (life, health, and social), disability coverage, holidays, leaves, and more. Our compensation framework is updated regularly in line with changing economic conditions, and our human resources policies make sure that our people are properly cared for, well-trained, and provided with equal opportunities to excel and advance within the company.

As part of our strict adherence to labor laws, we maintain a zero-tolerance policy for child labor and all types of forced labor. On that front, all of our workers are above the legal working age, and receive regular health and safety trainings and circulars that provide them with information on how to protect themselves against any outbreaks. We also enforce strict anti-discrimination policies among our people that prohibit discrimination against current or potential employees on the basis of race, religion, gender, nationality, age, or social status. The Group's policies are regularly updated to conform with national labor laws, and fully respect international human rights laws with regards to providing employees with decent compensations and benefits.

Qalaa Holdings' board approved and published its amended Code of Conduct in early 2022, which outlines the Group's values, and its commitments towards all its stakeholders including its valued employees, shareholders, vendors, and last but not least, the communities in which Qalaa operates.

Qalaa Holdings remains a strong proponent of diversity, inclusion, and equality, and the Group has always created a healthy environment that encourages and enables women to succeed and flourish in leadership positions by helping them to unleash their full potential. On that front, we are proud to report that 39.1% of our female employees hold senior and middle management positions. Additionally, 13.04% of our female leaders have been recognized as some of the most influential women in Egypt and the MENA region, and have received various awards related to this recognition.

With regards to age groups, Qalaa Holdings remains an attractive destination for young calibers, with 31.4% of the company's employees falling between 30 and 40 years of age, 34.8% between the ages of 41 and 50, and 17.4% between the ages of 51 and 60.

Launched in 2008, Qalaa Holdings' SAP SuccessFactors Talent Management System continued to play an important role in assessing employee talents across the Group during 2022. The platform allows for regular performance and career development reviews, and assists in monitoring employee efficiency as well as identifying training needs. On that note, around 180 employee training hours were recorded in 2022.

Environment

Qalaa Holdings operates in a variety of diverse and volatile sectors, and the Group is highly aware of its impact on the environment. As such, we actively work on balancing and offsetting the effects of our activities. On that front, we continue to make significant progress across our subsidiaries when it comes to responsible production, consumption, and waste management, with the end goal of achieving climate neutrality and zero carbon footprint.

The Group's subsidiaries have embarked on a number of initiatives related to environmental sustainability such as ERC's decarbonization strategy, which is aligned with Egypt's 2030 vision and its climate adaptation strategy. All of ERC's refinery heaters are equipped with a low NOx burner, which keeps the concentration of NOx at low levels, as well as using natural gas as a clean fuel. The company is also installing double sealing systems for floating surface tanks at CORC to minimize greenhouse gas emissions. Furthermore, ERC has in place an environmental monitoring program for ambient air in the area surrounding the refinery, and the company stacks emissions to keep track of the air quality in surrounding communities.

Since Qalaa Holdings' inception, we have been a partner of choice for like-minded DFI's, as well as bilateral, multilateral, and global credit export agencies, with our environmental sustainability commitment encompassing everything from product design to resource consumption, to waste management, recycling, and upcycling. As such, we bring to the market a selection of clean products, and we are continuously working on improving efficiency, optimizing operations, and increasing the mix of cleaner products in our portfolio. We also monitor, report, and refine our performance regularly, and diligently bring together global guidelines, such as Shorouk's FSC certification and Tawazon's GIC certification, as well as recycling waste into environmentally friendly biofuels, making us pioneers in circular waste-to-energy solutions. Additionally, since 2016 Tawazon/ECARU has been operating in Dina farms in circular waste management, producing 100% organic compost from feedstocks manure (average 100k tons annually) which serves as good input in organic farming, reduces reliance on chemical fertilizers, and decreases the water consumption rate by three times compared to other fertilizers, in line with the government's strategy to create new, decentralized approaches for agri-waste collection and recycling to create 'green jobs' and promote the efficient use of resources. Moreover, the application of biological treatment technology to feedstocks' manure helps eliminate diseases and nematodes. As for the area of agri-waste/biomass businesses, Tawazon/ECARU provides collection, transportation, and processing of all types of agricultural residues (Biomass). The company collects and processes around 500,000 tons of different types of Biomasses annually to produce various types of products such as Biomass Derived Fuel (BDF) for cement kilns with an annual capacity of 250,000 tons, Organic Compost with an annual capacity of 70,000 tons, and supplies purified Biomass for MDF Pulp and Papers Industries with an annual capacity of 100,000 tons. We are meticulous when it comes to developing policies, standards, and KPIs, as well as reporting across our subsidiaries and supply chains in the areas of Health, Safety, Environment, and Governance.

Our subsidiaries have implemented numerous environmentally friendly solutions and initiatives. ERC, which addresses the import substitution needs, is expected to eliminate a notable 100,357 tons and 186,000 tons of the country's sulfur and sulfur dioxide emissions annually, respectively. While TAQA's expected emissions reduction is projected to be 78,000 tons per annum.

Through its "GoGreen" environmental plan, TAQA Power has maintained environmental sustainability and green credentials by implementing the following management steps:

- Implementing a recycling strategy
- Maintaining hazardous waste management
- Investing in energy-saving appliances
- Procuring LED lamps
- Procuring environmentally friendly paper

Additionally, TAQA Power has implemented the Extended Product Responsibility (EPR) strategy through:

- Developing a waste management plan for solid waste produced, including minimizing plastic usage, the segregation and classification of waste, and transport to safe disposals
- Implementing effective operation and maintenance plans to optimize and reduce emissions and preventive maintenance activities, all in accordance with original equipment manufacturer (OEM) guidelines carried out by TAQA's professional team of engineers, supervisors, and technicians
- Avoiding inappropriate waste management and disposal methods, such as the open burning of waste, dumpsites, and uncontrolled landfilling in the surrounding area
- Signing an agreement with a waste collection service provider to safely dispose of hazardous waste, while recycling or reusing other solid waste, as well as contracting a certified service provider for the safe disposal of used oil

As part of our commitment to environmental sustainability and social development, Qalaa Holdings was an active participant in the 27th Annual United Nations Climate Change Conference (COP 27), which was held in the Egyptian city of Sharm El Sheikh. As part of our participation in the event, Qalaa Holdings took part in ten different panel discussions covering a wide array of topics:

- The Power of the Trio and the Benban Story: A discussion of Qalaa Holdings' triple bottom line and green investments.

- The Benban Story: A discussion of the Benban success story for Qalaa Holdings and TAQA Arabia.
- Qalaa Holdings Responsible Investments & The Journey Towards Decarbonization: A session focusing on implementation, namely:
 - Climate action across the portfolio
 - TAQA Arabia sharing its private-to-private solar and renewable energy solutions to mitigate climate change
 - The Egyptian Refining Company: The Pioneering Journey of Decarbonizing a Second Stage Refinery
 - Egyptian Decarbonization Model in Egypt and Africa: TAWAZON/ECARU Case Study
 - Other sectors: Glassrock/Uniboard/River Transportation
- Fireside Chat: “From Start Up to Responsible African Industrial Company – Building Businesses Sustainably and Responsibly – An Egyptian Example”: A Session covering Qalaa Holdings’ story and history as an Egyptian company focused on building businesses sustainably.
- Fireside Chat: “Green Hydrogen and Green Bio Methanol Production from Biomass”: A discussion of the green uses of recycled biomass.
- Towards A Fair & Green Energy Transition: Discussion of Qalaa Holdings solutions with examples from TAQA Arabia’s Dual Fuel Technology and CNG Mobile Technology for transitional clean transportation solutions, and transitional, inclusive, and eco-friendly energy solutions, as well as model replication in Africa.
- Can Small-and-Medium Farmers in Egypt and Saharan-Africa Feed the World?: Discussion of the impact and potential of small-and-medium farmers to promote global food security.
- Sustainable Cities: Resilient and Resource Efficient Buildings – Public-Private Partnerships that Deliver: Session covering the importance of sustainable cities and the role public-private partnerships play in establishing them.
- Climate Entrepreneurship Theme: Private Sector and Entrepreneurship for Sustainable Development & Climate Impact: Discussion of the private sector’s impact on and role in promoting sustainable development and positive climate impact.
- Propelling the Green Transition: Role of Partnerships, National & International Business Organizations & Associations: Session covering the type and extent of the role partnerships, national and international business organizations, and associations in propelling the green transition.

Governance - Measuring and Managing Our Progress

Governance and accountability are crucial in ensuring alignment and prioritization across our business. At Qalaa Holdings, we hold our businesses and subsidiaries accountable for their resource optimization, energy efficiency, and completing benchmarking to set carbon reduction targets towards our net zero by 2050 target. To that end, the Group has set in place the necessary infrastructure required to measure and manage its progress, such as its climate, water, and waste policies which play an important role in governing how Qalaa utilizes its resources.

Qalaa Holdings’ climate policy aims to minimize the Group’s carbon footprint and has seen us adopt a comprehensive strategy across our operations that has sustainability, innovation, and value creation at its center. Our climate strategy is centered around the strict compliance of all our subsidiaries with all climate laws and regulations implemented in each of the countries we operate in. Furthermore, Qalaa recognizes water scarcity as a universal issue that goes beyond regional and national boundaries that would have an effect on its subsidiaries’ activities across Africa, to that end, we are finalizing a water policy based on the following principles: operations’ impact measurement and management, engagement, governance and transparency, and collaboration.

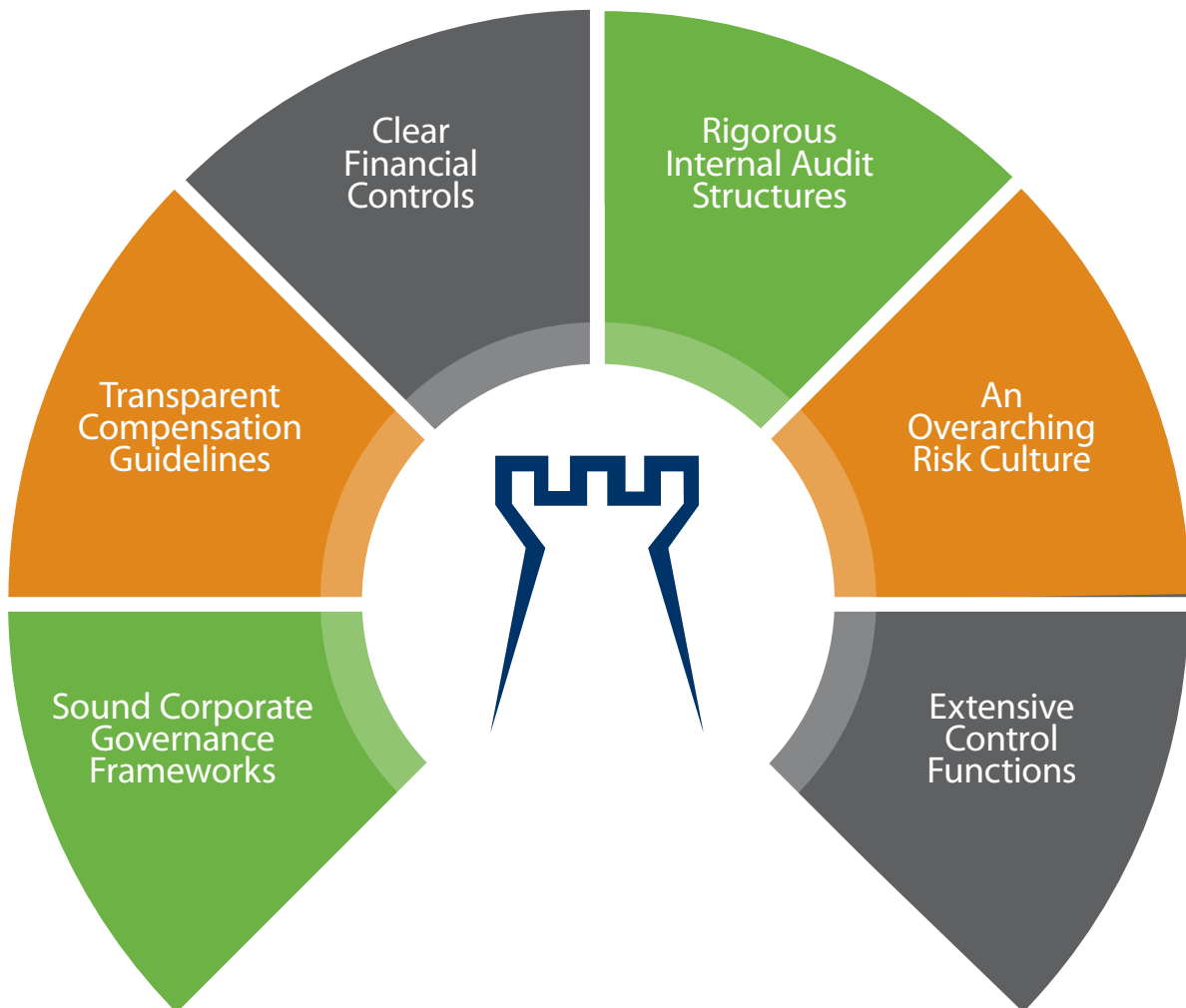
Qalaa Holdings recognizes water scarcity as a global issue that surpasses regional and national boundaries. The Group’s Water Compliance Strategy is based on the strict compliance of all subsidiaries to all national water laws and regulations featured in each of the countries where we operate. The strategy also ensures the adoption of numerous global guidelines, management systems, and standards at both the holding and subsidiary levels when relevant.

Anti-Corruption

Qalaa Holdings is a pioneer in sustainable and ethical business practices, and the Group views private sector leadership as essential for stimulating positive social change and economic development in Egypt. We believe that high-quality governance is a fundamental facilitator for superior corporate performance and that the components of effective governance can help minimize risk, pinpoint internal and external threats, and aid in capturing profitable business opportunities. We have overcome numerous challenges and made significant progress in implementing comprehensive and effective corporate governance strategies over the years. Qalaa took active steps towards sharing our experiences in this field with other

Egyptian private sector companies by joining the Egyptian Junior Business Association’s Integrity Network Initiative (INI) in mid-2017. This initiative connects Egypt’s leading companies with its most promising SMEs in a collective endeavor to combat corruption and build a culture of accountability and transparency.

Institutionalizing corporate governance processes is an ongoing, long-term objective across all of our platform companies. Equally important are the principles of fairness, openness, and transparency, which we have worked diligently to instill into corporate culture.



ESG Integration - Weaving the Triple Bottom Line into Our Business

Qalaa Holdings is one of the earliest adopters of a multifaceted business and investment strategy in the region, placing sustainability and environmental protection at its core. For more than a decade, we have strived to ensure that our operations and investments are conducted responsibly, with a positive impact on the economic, environmental, and social spheres. This triple bottom line approach has allowed us to invest in and establish a diverse set of companies across multiple sectors, all working towards facilitating sustainable economic growth and job creation in Egypt and across Africa. Our vision is aligned with international best practices as outlined by the UN SDGs and the UNGC.

2022 Progress

Taking part in COP 27 and participating in 10 panel discussions

QHSF reaches more than 200 scholarship recipients

ECARU signs cooperation protocol with Axens to Carry Out Technical and Economic studies for a Project of Second-Generation Biofuel (Advanced Bioethanol) and Sustainable Aviation Fuel (SAF) Production

People- Inclusive Growth & Human Capital Development

Qalaa's social contribution revolves around inclusive growth, stimulating holistic human capital development, and working towards a more inclusive economy. Our initiatives and programs contribute to the achievement of numerous human capital development SDGs. Our milestones for 2022 include taking huge strides towards achieving SDG#4, SDG#5, and SDG#10.

SDGs Milestones



Quality Education

- 36,900 beneficiaries from Qalaa's education and human capital development initiatives
- 200 scholarships awarded by QHSF to Egyptian students including 4 scholarships provided by ERC and 2 scholarships provided by TAQA Arabia
- 398 total scholarships with 216 recipients of Mostakbaly for students' scholarships, 4 scholarships abroad, 182 recipients of Mostakbaly for Teacher, and 79 through Don Bosco
- More than 10,767 workers trained at ASEC Engineering Academy's training program

Qalaa Holdings adopts a holistic approach to supporting education in Egypt. The Group offers various programs that cater for all levels of education, ranging from vocational education spanning various industries, from Mostakbaly program in Don Bosco and ASEC Academy to higher education in Egypt and abroad, as well as teacher education for training trainers, employee education, and personal development. Our approach allows us to actively train future generations and build the capacity of the Egyptian workforce. As for the Group's internal workforce, we place a significant focus on the personal development of our own employees. Our strong investment in Qalaa's employees plays an important role in enhancing society through training future generations and providing them with the skills necessary to not only climb the corporate ladder, but also to give back to the communities in which they live, as well as to the country as a whole.

Flagship Human Capital Development Investment:

Qalaa Holdings Scholarship Foundation (QHSF)

QHSF is Funded by an endowment from Qalaa Holdings, and is the largest scholarship program funded by the private sector in Egypt. The program was developed to provide Egyptian students with access to post-graduate education and has continued to develop sustainably under the guidance of its independent board of trustees and the management of its full-time executive director.

QHSF has granted over 200 scholarships to exceptional Egyptian students pursuing graduate degrees at top universities abroad over the past 16 years. The scholarship is provided on the condition that the students return to Egypt for employment and contribute to the country's development after completing their studies. These scholarships covered a variety of fields that include, but are not limited to filmmaking, anthropology, global mental health, mechanical engineering, biotechnology, and architecture.

QHSF's graduates are encouraged to invest their newly acquired global knowledge into finding employment or launching their own businesses. Alumni scholars have established businesses that are already contributing to Egypt's economic growth, including Amina Abou Douma, founder of Teatro Eskendria; Randa Fahma, co-founder of KarmSolar; and Hisham Wahby, founder of over 18 startups. Additionally, the foundation fosters diversity and inclusion across the program, with 46% of the beneficiaries being female across 15 governorates in Egypt.

Since the launch of the foundation in 2007, QHSF has now awarded scholarships to 200 students in total, granting around 15 scholarships a year on average in almost 14 countries for the past 16 years. Even with the negative implications of COVID-19 as well as the current Russia-Ukraine war and their negative global and local effects, QHSF has managed to continue awarding scholarships during these difficult times. After limiting the number of recipients for the 2020-2021 class to just three following the COVID-19-induced disruptions in an attempt to curb the effect of potential disruptions to programs of study, the foundation has increased the number of recipients to six for the 2022-2023.

Qalaa Holdings Financial Services Center (QHFSC)

As part of our commitment to support education in Egypt, Qalaa Holdings and the American University in Cairo (AUC) established QHFSC to assist students in developing the skills and qualifications needed to pursue careers in securities trading, risk management, and asset allocation. The center delivers to students unique learning opportunities by combining hands-on practical education with financial concepts. QHFSC is the first of its kind in the MENA region and remains one of Qalaa Holdings' central projects.

To establish the center, Qalaa Holdings donated USD 250,000 in seed funding, and continues to invest an additional USD 30,000 annually to ensure sustainability of operations. Qalaa Holdings has invested USD 180 million in databases and software Throughout the years to ensure that the center continues to operate seamlessly. QHFSC has trained over 2,738 graduates, researchers, and faculty members to date

across its expanding geographic network across Egypt.

TAQA Arabia Scholarship Program

TAQA Arabia, Qalaa Holdings' subsidiary, developed the TAQA International Scholarship program in order to fulfill its commitment as a socially responsible corporation that prioritizes human and community development. Through the program, TAQA Arabia fully funds the studies of a master's student in the field of renewable energy. The company also provides additional scholarships to students working in the alternative energy sector and are looking to pursue graduate studies in alternative energy and related disciplines. TAQA Arabia has awarded a total of 2 scholarships as of December 2022.

Corporate Mentorship Program with HEI/AMIDEAST

Qalaa Holdings partnered with AMIDEAST and volunteered with the HEI Public University scholarship program to motivate and mentor Egyptian youth and aid in bridging the gap between university and employment.

ASEC Academy

The ASEC Academy was founded by Qalaa Holdings' subsidiary, ASEC, to shed light on the value of vocational training. The Academy delivers a number of programs designed to train engineers, chemists, geologists, and technicians working in the cement industry. Furthermore, academy graduates receive accreditation by the Arab Union for Cement and Building Materials. In 2022, the number of trainees reached 10,767.



SDG 5: Gender Equality

Gender equality and female economic empowerment are keystones of Qalaa's human capital development programs. We believe in creating a highly inclusive work environment that promotes women's influence and impact. Our female empowerment strategy aims to support women in the workplace and ensure that they are given fair and equal leadership and management opportunities as per the principle of "Gender Fairness and Equal Opportunities". We also implement employment policies that are tailor made to foster a supportive environment for women and cater to their specific needs with benefits such as flexible working hours during pregnancy and after maternity leave. Across our subsidiaries, the Group has several prominent women serving in top management roles and leadership positions. We currently have 2 CEOs, 2 CFOs, and 2 heads of functions. Furthermore, 6 of our leading women have been named as part of Egypt's top 50 most influential women network. To further expand on our female empowerment efforts, we are setting succession strategies by constantly increasing the number of women

holding middle management roles in an effort to provide them with a greater opportunity to hold senior leadership positions in the future. It's worth noting that the IFC has conducted a case study on "Exploring Client Approaches to Gender-Based Violence Prevention and Response" in TAQA Arabia's Benban Solar Park project, where the company recognized the need to consider female specific risks as part of the project's environmental, social, and health and safety requirements. For example, the project location – a remote desert environment – and local socio-cultural gender norms were identified as specific threats to women's safety. Accordingly, TAQA implemented a number of steps to mitigate these risks, and the company implemented a variety of measures to promote gender equality.

Qalaa Holdings' female empowerment strategy is built on four main pillars:

- Supporting and empowering women in the workplace as per the principle of "Gender Fairness and Equal Opportunities", with 25% of Qalaa's board members and 39.1% of Qalaa's upper and middle management are women
- Appointing and rewarding successful female executive leaders and positioning them as role models that lead by example in the local and international business arenas
- Launching diverse community development programs that target training and empowering women to reduce the gender gap. Currently, c. 50% of the direct beneficiaries of our community development programs are women, with the total number of direct and indirect beneficiaries reaching c. 300,000 females
- Partaking in and collaborating with international organizations on initiatives that aim to empower women and achieve gender balance and equality while also pushing male workers to support and empower such initiatives.

The Group plays an active role in enhancing the status of women, achieving equality, and pushing for equal opportunities by participating in local and international institutions' that aim to achieve these goals. As an active participant in the Gender Accelerator, a UNGC initiative, Qalaa's management understands and has integrated the SDGs framework in its business operations, thinking, and practices, including prioritizing SDG 5 – Gender equality. In line with the company's strategy, in 2020 Qalaa's Co-Founder and Managing Director -Hisham El-Khazindar- co-chaired the "Closing the Gender Gap Accelerator" launched by Egypt and the World Economic Forum. Additionally, in early 2022, Qalaa Holdings became a

signatory to the Women Empowerment Principles (WEPs) and became part of an international network of high-performing companies that are advancing diversity and inclusion in the private sector, an initiative composed of a set of 7 principles established by UN Women and the UNGC to enhance gender equality at a company, marketplace, and community level.

Qalaa Holdings regularly launches diverse community development programs, all of which aim to train and empower women. 46% of QHSF scholars and almost 50% of total direct and indirect beneficiaries from Qalaa and its subsidiaries' community development programs are women, bringing the total to c. 300,000 female beneficiaries. In parallel, we also participate in and cooperate with international organizations on female-centric initiatives that target achieving gender balance and equality, as well as encourage male workers to actively support them.



Reduced Inequalities

- EGP 690,000 contributed to community development programs from 2004 to December 2022
- 13,704 people trained in job market skills by ERC, QHFSC, and ASEC Academy as part of the vocational education initiative (2,768 ERC trainees, 90 ASEC Academy AUC diploma holders, 10,767 ASEC Academy trainees, and 79 Don Bosco graduates)
- c. 9,485 direct and indirect beneficiaries of the "Tamkeen" program and c.113,562 direct and indirect beneficiaries of the "Mashrouy" program for economic empowerment and income raising
- c. 11,920 direct and indirect beneficiaries of the "Takaful" program for children with special needs
- c. 1,710 direct and indirect beneficiaries of the "Reyada" program for youth capacity building and voluntary work
- c. 26 specialized NGOs and success partners

Contributing to reducing economic and social inequalities by building capacities through education and human capital development is the main purpose of all our initiatives. Through our community development initiatives – Tamkeen, Mashrouy, Reyada, and Takaful – we support women, youth, and individuals with special needs toward achieving that goal.

Community Development Initiatives

ERC has launched several community initiatives geared towards the betterment of the communities in which we operate as part of our efforts to give back to, and support the people of our communities.

Tamkeen

Tamkeen provides training in economic empowerment projects with the goal of supporting female entrepreneurs in developing their living conditions.

- **9,485 direct and indirect beneficiaries – 100% women**
- **1,589 women trained to enter the labor market**
- **223 small projects supported for women empowerment**
- **85 grants for craft training**

Mashrouy

Mashrouy specializes in youth economic empowerment.

- **113,562 direct and indirect beneficiaries – 15% females, 85% males**
- **1,179 youths trained to enter the labor market**
- **92 small projects for youth empowerment**
- **25 grants for craft training in the field of mobile maintenance**
- **4 computer centers supported to service youth in the Mostorod area**

Reyada

Reyada aims to train volunteers on managing social initiatives

- **1,710 direct and indirect beneficiaries – 60% women, 40% men**
- **128 volunteers (30 active)**
- **8 community development initiatives**
- **14 human capacity building trainings**
- **3 incentive activities**

Takaful

Takaful provides community members with special needs with the opportunity to integrate within and contribute to their communities.

- **11,920 direct and indirect beneficiaries – 50% females, 50% males**
- **4 childcare centers supported**
- **1,500 people with disabilities supported**
- **4 schools for people with special needs supported**

Mostakbaly

Takaful offers community members with special needs with the opportunity to integrate within and contribute to their communities.

- **470,000 direct and indirect beneficiaries – 50% females, 50% males**
- **97 undergraduate scholarships**
- **11,599 prescription glasses for underprivileged students**
- **45 public schools in Mostorod area upgraded**

Planet

Every one of Qalaa Holdings' subsidiaries plays a distinct role in striving to balance and offset the impact of our investments and activities. Our environment and climate related milestones include the following.

NDCs

Qalaa Holdings has established and continues to set up green projects to support Egypt's transition into a green economy in line with the country's 2030 Vision and Egypt's Nationally Determined Contributions (NDCs). Qalaa focuses on the following core strategic sectors:

Oil & Gas

Qalaa Holdings offers green solutions in the field of decarbonization via its energy subsidiaries: TAQA Arabia, a "one-stop-shop" fully-fledged energy distribution and utilities leader in the private-sector in Egypt and a pioneer in energy distribution in several countries in the Middle East and Africa, as well as the Egyptian Refining company (ERC), the USD 4.3 billion greenfield petroleum refinery and Egypt's largest state-of-art PPP infrastructure megaproject.

QH supports the government's goal of maximizing energy production from local resources, diversifying supply, minimizing the intensity of energy consumption, and transitioning to low carbon pathway in the electricity sector, mainly through:

- Installing additional renewable energy capacities
- Accelerating the scale-up of on-grid renewable energy
- Improving energy efficiency across the company's operations and portfolio, replacing diesel fuel power plants with solar plants

The Group's subsidiaries support Egypt's NDC to reduce GHG emissions by 65% by benchmarking and establishing a decarbonization plan for ERC to incorporate low carbon technologies across all upstream and downstream activities, mainly through our subsidiary TAQA Arabia.

Sustainable Transport

Through TAQA Arabia, the Group actively works on converting its buses, cars, and trucks to operate on fuels with lower carbon intensity (i.e. natural gas).

Sustainable Industry

Through TAQA Arabia, which distributes natural gas for vehicles through CNG stations, branded as Master Gas and located in several cities across the country, Qalaa is mobilizing and facilitating compressed natural gas (CNG) and mini solar PV solutions to accelerate the transition to greener economy. Master Gas owns 70 CNG stations and 13 conversion centers established in major locations. Master Gas has converted around 31,621 vehicles since inception and has an ambitious plan to increase the rate of car conversions to more than 8,000 vehicles per year as well as increase the number of filling stations to 81 stations by 2023. Master Gas's CNG stations have contributed to preserving the environment by reducing CO2 emissions 70,896 tons compared to gasoline and 82,172 tons compared to diesel.

Sustainable Building and Urban Cities

By implementing standards and practices that ensure low carbon emissions, Qalaa promotes sustainable practices across its urban development operations and its new buildings. This is primarily achieved via GlassRock, Egypt's largest rockwool manufacturer and sole glasswool manufacturer. The company offers high performance, efficient, and sustainable insulation solutions for thermal, acoustic, and fire applications engineered by expert local teams, and provides rockwool and glasswool for construction, industrial, agricultural, transportation, and other OEM sectors. GlassRock also exports its products to key markets in North Africa, the GCC, Southern Europe, and Turkey.

Sustainable Waste Management

Qalaa's solid waste management subsidiary Tawazon has maintained significant efforts to provide cleaner and alternative fuels recycled from waste - such as biomass-derived fuel (BDF), solid recovery fuel (SRF), and refuse-derived fuel (RDF) - to heavy energy consumers as a source of thermal energy throughout 2022. This comes in line with the Egyptian government's vision to increase waste-to-energy contributions and create a safe, efficient, and effective waste management, disposal, and recycling system that protects the natural environment.

Tawazon, a full-service solid waste management company, is pioneering in circular waste-to-energy solutions by recycling waste into environmentally friendly biofuels. Tawazon holds two

subsidiaries: the Egyptian Company for Solid Waste Recycling (ECARU), a solid waste management service operator, and the Engineering tasks Group (ENTAG), a solid waste management engineering and contracting company that has consulted on more than 85 projects in Egypt and in several Arab countries and maintained an international presence with projects across Saudi Arabia, Malaysia, Libya, Sudan, Oman, and Syria.

Tawazon focuses on providing biomass and RDF as an alternative fuel to heavy energy consumers, such as cement factories, and feedstock to medium-density fiberboard (MDF) factories as well as pulp plants. As of the end of July 2022, the company had produced and distributed 561,834 tons of RDF, 1,420,048 tons of organic compost, and 1,563,682 tons of biomass.

SDGs Milestones



Affordable and Clean Energy

Qalaa creates sustainable businesses that are completely in line with, and facilitate the transition to, a green economy. We aim to provide clean energy solutions at affordable prices and substitute imported materials with local alternatives through our energy subsidiaries ERC, TAQA Arabia, and Tawazon. On that front, by furthering our commitment and expanding our alternative energy mix we have played an important role in helping achieve the Egyptian government's target of generating 20% of the country's total energy from renewables by 2022.

On a related note, we reaffirm our dedication to investing in renewable energy activities, reducing our carbon footprint, and lowering our harmful emissions. We are steadily achieving this through the deployment of various projects across our footprint, including ERC as well as TAQA Arabia's solar power plant in Benban Solar Park. We have also introduced state-of-the-art technologies at TAQA Arabia in line with the government's plan to expand the use of natural gas by converting vehicle engines to run on dual fuel and use both natural gas and diesel.

Other subsidiaries such as Tawazon, ECARU, GlassRock, Uniboard, and Nile Logistics have also impacted energy management. Our solid waste management subsidiary, Tawazon, delivers waste-to-energy solutions by providing alternative fuels to heavy energy consumers, and has supplied companies in heavy industries with nearly 1,485,122 tons of sustainable biomass since 2015. The company also recycles municipal and agricultural waste, converting it into useful products such as compost and animal fodder. Furthermore, ECARU produces biomass from agricultural waste, and Nile Logistics uses the Nile River, a more environment-friendly mode of transportation, to connect producers, exporters, and importers with local and global markets. Moreover, GlassRock produces energy-efficient insulation materials such as glasswool and rockwool, while Uniboard uses recycled wastepaper as one of the principal raw materials in the production of duplex boards.



Affordable and Clean Energy

Qalaa Holdings is committed to playing an active role in fostering and nurturing sustainable cities and communities in the areas where the Group operates. Qalaa's subsidiaries support a number of aspects related sustainable transportation, such as reducing emissions through TAQA Arabia's Dual Fuel technology, which enables fuel vehicles to run on a Dual Fuel technology, which uses both diesel and natural gas simultaneously during the engine's compression process, thus delivering greater power and efficiency while also reducing diesel consumption by 30%.

We are also committed to making sure that solid waste is adequately recycled by promoting the utilization of waste management to preserve and add value to natural resources. Through subsidiaries such as Tawazon, Qalaa plays an active role in these efforts. Tawazon recycles waste into environmentally friendly alternatives to coal and natural gas, such as biomass-derived fuel (BDF), solid recovery fuel (SRF) and refuse-derived fuel (RDF), and delivers them to heavy consumers as a source of thermal energy.

At Dina Farms, Tawazon/ECARU creates 100% organic compost from feedstocks manure (average 100k tons annually) which serves as good input in organic farming, decreases reliance on chemical fertilizers, and reduces the water consumption rate by three times when compared to other fertilizers.



Responsible Consumption and Production

In addition to complying with environmental laws across our footprint, we have developed an all-encompassing, progressive, and proactive environmental policy to guide our investment decisions and govern our subsidiaries. Our policy incorporates numerous goals and practices, including conducting a thorough environmental impact study before undertaking any investments; prioritizing efficient use of resources to minimize waste and depletion of natural resources; actively encouraging industries and communities to expand their use of cleaner energy; investing in the latest waste management technologies; and investing in the research and development of new technologies to reduce emissions and minimize waste. Our framework also includes the production of annual reports on our performance to celebrate our strengths as well as pinpoint and address weaknesses.

The Group implements these practices across all its subsidiaries. We employ strict waste management policies, and some of our subsidiaries use waste as an input in the production of various materials that range from clean alternative energy (Tawazon) to duplex boards (Shorouk, a subsidiary of National Printing Company). In parallel, ERC operates an environmentally friendly closed-circuit cooling system that efficiently utilizes a limited water supply and reuses it in the cooling process with the aid of cooling towers. ERC also performs regular upgrades at Cairo Oil Refining Company (CORC), our neighboring refinery, which include the installation of environmental monitoring equipment. Meanwhile at Dina Farms, we use the world's most technologically efficient irrigation system to minimize water consumption, while El Baddar recycles paper and other materials in the production process of its packaging and printing products.

Our portfolio also boasts the efforts of TAQA Oil Marketing, which complies with Egyptian environmental law No.4 issued in 1994 in the disposal of all forms of waste ensuing from operations. This includes the disposal of solid contaminated waste through governmental approved contractors, and contaminated wastewater is pumped back into the refinery to be treated accordingly. TAQA Power has also implemented a document retention policy (DRP) to efficiently optimize paper consumption.



Pioneering the Commitment to the Net Zero Challenge

Investing in Sustainable Buildings

- USD 70 million investment in sustainable insulation materials companies by GlassRock.
- 40% reduction in carbon dioxide emissions in buildings that use GlassRock insulation materials.

Mobilizing Capital to Invest in Cleaner Energy

- Providing energy to more than 1.6 million customers
- Master gas owns 70 CNG stations and 15 conversion centers scattered in major locations
- Introduction of the Dual Fuel Technology in Egypt for the first time in 2020 by TAQA Arabia
- Inauguration of TAQA Volt by TAQA Arabia which focuses on developing and managing vehicle charging stations (13 charging units already operational)

Prioritizing Decarbonization

- ERC is the first company in the Egyptian Oil & Gas Sector to publish its GHG Inventory Report
- In ERC, all refinery heaters are equipped with a low NOx burner, which maintains the concentration of NOx at minimal levels, in addition to using natural gas as a clean fuel at ERC.
- Installing double sealing systems at ERC for floating surface tanks at CORC to reduce greenhouse gas emissions.
- ERC has an environmental monitoring program in place for ambient air in the surrounding area of the refinery and stacks emissions to keep track of the air quality in surrounding communities.

Pioneering the Commitment to the Net Zero Challenge (SDG 13):

Qalaa Holdings is the first Egyptian company to sign an international pledge that aims to curb the effects of global warming and build a net-zero carbon economy for the future. By signing the pledge, we are further underscoring our accountability, responsibility, and leadership towards carbon neutrality and achieving a more sustainable future for coming generations. As signatories of the Business Ambition 1.5°C, we will measure, quantify, and accordingly reduce our greenhouse gas emissions at the pace and scale necessary to limit global warming.

Prosperity

Qalaa Holdings invests in various businesses across a wide range of sectors, spanning industry to infrastructure. Our goal is to provide innovative solutions, facilitate knowledge transfer, introduce international best practices, and empower employees to stimulate innovation across all the sectors we invest in.

SDGs Milestones



Affordable and Clean Energy

Qalaa creates sustainable businesses that are completely in line with, and facilitate the transition to, a green economy. We aim to provide clean energy solutions at affordable prices and substitute imported materials with local alternatives through our energy subsidiaries ERC, TAQA Arabia, and Tawazon. On that front, by furthering our commitment and expanding our alternative energy mix we have played an important role in helping achieve the Egyptian government's target of generate 20% of Egypt's total energy from renewables by 2022.

On a related note, we reaffirm our dedication to investing in renewable energy activities, reducing our carbon footprint, and lowering our harmful emissions. We are steadily achieving this through the deployment of various projects across our footprint, including ERC as well as TAQA Arabia's solar power plant in Benban Solar Park. We have also introduced state-of-the-art technologies at TAQA Arabia in line with the government's plan to expand the use of natural gas by converting vehicle engines to run on dual fuel and use both natural gas and diesel.

Other subsidiaries such as Tawazon, ECARU, GlassRock, Uniboard, and Nile Logistics have also impacted energy management. Our solid waste management subsidiary, Tawazon, delivers waste-to-energy solutions by providing alternative fuels to heavy energy consumers, and has supplied companies in heavy industries with nearly 1,485,122 tons of sustainable biomass since 2015. The company also recycles municipal and agricultural waste, converting it into useful products such as compost and animal fodder. Furthermore, ECARU produces biomass from agricultural waste, and Nile Logistics uses the Nile River, a more environment-friendly mode of transportation, to connect producers, exporters, and importers with local and global markets. Moreover, GlassRock produces energy-efficient insulation materials such as glasswool and rockwool, while Uniboard uses recycled wastepaper as one of the principal raw materials in the production of duplex boards.



Decent Work and Economic Growth

- 80+ businesses founded and developed
- 40,000 jobs created
- 13,200 employees currently employed by Qalaa and its subsidiaries
- c.2,768 people trained in job market skills by the Egyptian Refining Company (ERC)
- More than 10,767 workers trained at ASEC Engineering Academy's training program

A central component of Qalaa Holdings' mission is to invest in a diverse selection of businesses that contribute to sustainable economic growth and job creation in Egypt and across Africa. Throughout the years, we have built and acquired more than 80 businesses and created over 40,000 jobs across our footprint thanks to Qalaa's appeal as an investor. The Group's attractiveness stems from our positive contributions to the Egyptian and African economies as well as our commitment to Egypt's Vision 2030, in addition to the tremendous efforts exerted in localizing industries and SDGs, while making efficient use of local resources, thus positioning Qalaa as a trend-setter in the market. It is our belief that empowering local skilled labor is a sustainable business practice that will have a positive impact on Egypt and the region. Our consistent incremental increase in existing investments stimulates job creation and enhances economic prospects, which we aim to fuel at every possible opportunity, while simultaneously contributing to closing the market gap. To further accelerate our economic growth, we provide our employees with vocational training and other educational opportunities to reduce skill gaps and bolster capabilities. At our subsidiaries, employees also get to interact with, and learn from, onsite specialists and engineers.



Industry, Innovation, and Infrastructure

Investing in Energy Infrastructure Solutions:

- Master Gas has been innovating its technology "CNG" by bringing the "Virtual Pipeline" technology to Egypt for the first time
- TAQA Arabia led the only 100% fully Egyptian consortium among the 32 developers and launched its 65 MW solar power plant in Benban Solar Park
- USD 4.3 billion refinery to provide environmentally friendly Euro V diesel and refined products for the local market

Sustainable Transport Solutions:

- 50 river barges, serving as a one-stop-shop for transporting goods efficiently and economically

Waste Management Infrastructure:

- 531,228 tons of RDF, 1,327,934 tons of organic compost and 1,485,122 tons of biomass

One of our investments is TAQA Arabia, our "one-stop-shop" fully-fledged energy distribution & utilities subsidiary, which led the only 100% fully Egyptian consortium among the 32 developers and launched its 65 MW solar power plant in Benban Solar Park in Aswan. Another prominent investment is our flagship energy project, ERC, which was constructed under the supervision of leading international experts from GS Engineering & Construction Corp. and Mitsui & Co. Ltd, who provided essential transfer of knowledge and innovation to local workers throughout the project's lifecycle. The company utilizes advanced technology to convert the lowest value fuel oil into middle and light distillates. The Group also supports transportation and infrastructure by investing in water and rail transport to reduce pressure on congested highways across Egypt and other regional countries.

On the sustainable transport solutions front, Qalaa Holdings owns Nile Logistics, a transportation, port management, and logistics platform that utilizes environmentally friendly river barges as an alternative to trucking. Additionally, the company introduced Dual Fuel technology for the first time in Egypt (adding a small component to a diesel engine) through TAQA Arabia, enabling diesel fuel trucks to run on Dual Fuel technology that mixes both diesel and natural gas simultaneously during the engine's compression process, thus delivering enhanced power and efficiency while reducing diesel consumption by 30%.

With regards to waste management, Qalaa's solid waste management subsidiary Tawazon (Parent company of ECARU and ENTAG), a pioneer in circular-waste to energy solution, continues to undertake strong efforts in offering cleaner and recycled alternative fuels from waste such as biomass-derived fuel (BDF), solid recovery fuel (SRF) and refuse-derived fuel (RDF) to heavy consumers as a source of thermal energy throughout 2022.

Leveraging Partnerships to Unlock Sustainable Economic Growth (SDG 17)

Partnerships for the Goals



Partnerships for the Goals

- Partnership for financing: partner of choice for c.6 DFI's
- 6+ governmental organizations in Egypt
- 44 civil society organizations as partners
- 13+ academic and international organizations

At Qalaa Holdings, we firmly believe in the power of joining forces with like-minded local and international organizations, such as the UNGC and WEF, which work towards common goals. These partnerships allow us to extend our reach and add further value to our communities. As such, we partner with governments, civil societies, international organizations, and thinktanks across every country we operate in to increase the size and scope of our impact. Additionally, we play an active role in encouraging other companies to adopt and work toward the SDGs. Furthermore, we are also members of the Integrity Network Initiative, which aims to bring the Egyptian business community together to fight corruption and establish an efficient and enabling business environment. Moreover, ERC presents an essential import substitution project that will save Egypt around USD 600 million to USD 1 billion annually, significantly supporting the Egyptian economy.

Qalaa Holdings continues to be the partner of choice for Developmental Finance Institution (DFI) partners owing to the Group's conformance with rigorous environmental and social development standards, robust reporting mechanisms, and the implementation of regular improvements. This was evident in the ERC project, the company's landmark investment, which attracted the support of top Egyptian, Gulf and international investors, global export credit agencies, and DFIs.

The Group works closely alongside its DFI partners to enhance the company's compliance and reporting frameworks. This involves, among others, adherence to the IFC's performance standards with regards to environmental and social performance. On that front, a large number of our subsidiaries submit quarterly reports on their environmental performance to our DFI partners to ensure transparency and ongoing dialogue. Additionally, Qalaa Holdings has entered a number of public-private partnerships (PPPs) in order to implement its large-scale projects such as Benban as well as several gas projects, with Qalaa leading these partnerships. Furthermore, Qalaa has partnered up with the Egyptian government for the implementation of several social development programs alongside a number of ministries, including the Ministry of Education and the Ministry of Planning.

ERC Community Development Initiatives

ERC focuses on four main areas that have been identified by an Environmental and Social Impact Assessment (ESIA) conducted previously by the company. The assessment was the most comprehensive ESIA ever commissioned in Egypt for an industrial project based on international IFC standards to minimize negative project impacts.

Supporting Education

ERC launched Mostakbaly initiative in collaboration with the Ministry of Education and educational directorates in the Cairo and Qalyubia governorates with the purpose of improve teaching and learning capacities within Egypt's public education system. The initiative is part of ERC's sustainable development strategy as well as its ongoing efforts to advance Egyptian public education and achieve quality education for all in line with SDG 4.

Mostakbaly focuses on kindergarten and primary school teachers on the back of a firm belief that early years are the pillars on which future education is built. Teachers nominated for scholarships are chosen on the basis of their track record in community service activities as well as their ability to transfer their acquired experiences and knowledge to colleagues in their schools and districts.

Moreover, teachers who receive the Mostakbaly scholarship receive training sessions at AUC where they are provided with e-learning skills necessary to conduct online education. The program enables participants to play a key role in successfully ensuring educational continuity, as schools were forced to shift to distance learning during the pandemic. In total, Mostakbaly has benefited 130 teachers since 2017.

On a related note, Mostakbaly also provides members of ERC's local community with access to better education opportunities. The program provides students with the opportunity to pursue undergraduate degrees in a variety disciplines at a selection of Egypt's most prestigious public and private universities. To date, the program has provided 115 undergraduate and four graduate students scholarships abroad in partnership with five universities, in addition to 79 scholarships to Don Bosco. As of 2022, the total number of scholarships provided reached 300 scholarships.

In 2022, Qalaa Holdings celebrated six years of the Mostakbaly program, including announcing the names of 78 new beneficiaries and its efforts in impacting over 180 thousand students, offering 300 scholarships in total, and developing 45 schools.

Women and Youth Economic Empowerment

Through its Tamkeen and Mashrouy initiatives, ERC has continued to promote women and youth economic empowerment. Tamkeen delivers training in economic empowerment projects with the goal of supporting female entrepreneurs in enhancing their living conditions, while Mashrouy specializes in youth economic empowerment. In 2022, Tamkeen and Mashrouy had a total of c. 9,485 and c.113,562 direct and indirect beneficiaries respectively.

Youth Volunteering and Capacity Building

On the back of its firm belief that youth are the best intermediaries for maintaining sustainable efforts and passing them on to future generations, ERC prioritizes encouraging youths to

volunteer and partake in community initiatives. On that front, the company launched its Reyada program to train volunteers on managing social initiatives. In 2022, Reyada had 128 volunteers and c.1,710 direct and indirect beneficiaries.

Supporting Individuals with Special Needs

Takaful was launched by ERC, in partnership with governmental institutions and local development associations, to provide community members with special needs with the opportunity to integrate within, and contribute to, their communities. As of 2022, the total number of direct Takaful beneficiaries reached 1,500 while indirect beneficiaries reached 9,500.



Decarbonization Plans and Target Setting

Decarbonization Plans - Carbon Inventory Benchmarking and Mitigation Plans

Through capital mobilization, committing to the net zero challenge and decarbonization plans, Qalaa Holdings is accelerating the climate transition, with efforts to control and monitor emissions showing excellent results. Greenhouse gas emissions witnessed a 30% reduction, which was achieved by transforming 4 million tons per year of heavy residuals to light petroleum products. We have also enhanced the quality of ambient air through 99.9% Sulphur recovery technology and the removal of 100,357 tons of Sulphur per year. We also incorporate advanced technology such as the ERC Refinery stacks which are directly connected to the Egyptian Environmental Affairs Agency (EEAA) with an online real time emission monitoring system. Furthermore, ERC produces low Sulphur content diesel (Euro 5), providing new conventional burners to Cairo Oil Refinery Company, and providing double seal floating roofs for tanks in Pipeline company; all effectively reducing emissions and improving ambient air quality.

ERC adheres to the IFC Performance Standards and Equator Principals, and the company has started issuing a GHG inventory report on Direct Emissions and Electricity Consumption as a base-year report. The report follows the standards and guidance of the GHG Protocol, Corporate Accounting and Reporting Standard, the Intergovernmental Panel on Climate Change (IPCC), and the American Petroleum Institute (API) Compendium and complies with ISO 16064 requirements. GHG report data quality, uncertainty, and QA/QC are verified by a 3rd party consultant to ensure data reliability.

Key metrics and indicators for measuring our progress

Egyptian Refining Company (ERC)

Qalaa Holdings' flagship USD 4.3 billion refinery, ERC, was inaugurated in 2020 by H.E. President Abdel Fattah El Sisi. Endorsed by the Egyptian government, the project is an excellent example of a successful public-private partnership (PPP). The company integrates economic, social, and environmental returns that are in line with Egypt's Vision 2030 and President El Sisi's mandate to attract private investors to invest in the localization of industries and value-added national projects.

ERC is expected to have resounding, multifaceted economic, environment, and social effects on Egypt. The company

represents a vital import substitution project that will save Egypt around USD 600 million to USD 1 billion annually. Furthermore, ERC also conducts various community development programs to improve the lives of people in the Mostorod area where the refinery operates.

To achieve energy efficiency, ERC acquires atmospheric fuel oil from the adjacent government-owned refinery, CORC, and converts it into Euro V diesel, considered to be the cleanest fuel of its type in the world. This prevents 186,000 tons of sulfur dioxide and 100,357 tons of sulfur from being emitted into Cairo's air annually. Furthermore, ERC set up a three-stage industrial wastewater treatment plant, in accordance with the highest local and international standards. The plant reduces water consumption as well as pollution as it is not diverted to the Ismailia Canal.

ERC is the first Egyptian oil and gas company to publish a GHG Inventory Report. The company has developed a robust and reliable integrated GHG system which includes a GHG Monitoring and Reporting Plan (MRP) on the corporate level. The plan is based on international best practices and calculation methodologies which enable identifying and quantifying GHGs emissions from all emission sources. This allows for managing GHG risks and identifying reduction opportunities, public reporting and participation in voluntary GHG programs, participating in mandatory reporting programs, participating in GHG markets, and recognition for early voluntary action. ERC's GHG Inventory is calculated using the standards and guidance of GHG protocol corporate accounting and reporting standards, IPCC, API, for the Natural Gas and Oil Industry 2021 standards, in addition to complying with IFC Performance standard and consistent with ISO 14064-1:2018 requirements.

ERC is also a leader when it comes to decarbonization. At ERC, all refinery heaters are equipped with a low NOx burner, which maintains the concentration of NOx at minimal levels. The company also uses natural gas as a clean fuel. ERC is also installing double sealing systems for floating surface tanks at CORC to reduce greenhouse gas emissions. Furthermore, ERC has set in place an environmental monitoring program for ambient air in the area surrounding the refinery and stacks emissions to keep track of air quality in surrounding communities.

ERC Environmental Indicators

Waste Disposal (tons/year)

	2022
Hazardous Waste	20
Empty Chemical Containers	36
Bulbs and Transformers	0.2
Sludge	1,620
Non-Hazardous Waste	334
Caustic Soda	0.3

Wastewater Treated/Reused (m3)

	2022
ERC Refinery	3,992,985

City Water Use (m3)

	2022
ERC Refinery	7,074,024

TAQA Arabia

TAQA Arabia led the only 100% fully Egyptian consortium among 32 other developers and launched its 65 MW solar power plant in Benban Solar Park in Aswan, Egypt, the largest solar park in the world, as part of its goal to expand renewable energy. This EGP 1.35 billion investment played an important role in achieving Egypt's 2022 target of producing 20% of its electricity needs through renewable resources. TAQA transmits and distributes natural gas connections to over 1.5 million customers across 18 governorates (48 cities) within Egypt and is expected to reduce emissions by c.78,000 tons annually, as well as avoiding 2 million GHG tons per annum from its solar plant. The company is constantly on the lookout for opportunities to expand into alternative energy and wind power.

TAQA Arabia introduced Dual Fuel technology for the first time in Egypt (adding a small component to a diesel engine), which allows diesel fuel trucks to run on a Dual Fuel technology that uses both diesel and natural gas simultaneously during the engine's compression process.

This allows for the delivery of greater power and efficiency while also reducing the truck's diesel consumption by 30%. Furthermore, TAQA Arabia signed an agreement with Ostool – operator of the largest land trucking fleet in Egypt – in 2021 and has been transitioning its truck fleet to dual fuel. TAQA Arabia was also one of the first companies to obtain a regulatory license for building and developing EV charging stations; this comes as part of the company's strategy to shift its power services to more renewable energy sources and cater to a wide range of clients seeking sustainable environmentally friendly solutions. To that end, TAQA established TAQA Volt, a subsidiary focused on developing and managing vehicle charging stations. TAQA Volt already has 13 charging units and is targeting to add over 50 new charging units yearly. As for cars, TAQA has been expanding use of natural gas, and has converted around 31,621 cars in Egypt. TAQA Arabia has also converted the first CNG cars in Equatorial Guinea. This comes as part of the framework of collaboration with the Ministry of Mines and Hydrocarbons in Equatorial Guinea. On that front, TAQA Arabia was successful in transferring its knowledge and know-how regarding CNG/GNV technology, enabling cars to run on natural gas for the first time in Equatorial Guinea. The collaboration between MMH's operations team and TAQA's technical experts has seen the successful conversion of the first five cars to run on CNG. Kits were safely installed, training for drivers and technicians was conducted on site, and cars were calibrated to international standards. In cooperation with the Ministry of Mines and Hydrocarbons in Equatorial Guinea, TAQA Arabia intends to deploy all its efforts, experience, and know-how regarding development of gas infrastructure projects through several phases with the aim of achieving and supporting Equatorial Guinea's commitments towards net CO2 emissions by 2050. As part of this, the Ministry is looking to convert 50% of the country's cars to run on CNG.

TAQA PV received the first tranche of a USD 10 million loan from the European Bank of Reconstruction and Development (EBRD), under the Southern and Eastern Mediterranean Private Renewable Energy Framework (SPREF) in 2021. This financing package was approved in 2020 and TAQA PV was Egypt's first recipient. The package will be used to organize private finance for renewable energy projects in the SEMED region. The tranche, which amounts to USD 4.2 million, was used to finance the construction of a 6 MW solar photovoltaic power plant that supplies energy to Dina Farms, Qalaa Holdings' agrifoods subsidiary. This project is aligned with both Egypt's energy sector transition and target to achieve 42% generation from renewable sources by 2035, as well as Qalaa Holdings' overall environment sustainability

strategy to enable and drive growth in Egypt's green economy. Additionally, TAQA Arabia is currently developing another solar PV plant in ASCOM company for mining and geology – one of Qalaa Holdings' mining companies, – and has successfully started the operation of two projects in the tourist hotspots of Soma Bay and Nabq. TAQA PV is also currently working on Nabq phase 2 as well as the industrial zone of 6th of October City.

TAQA Gas is continuously growing its operations and expanding its market share in CNG. The company presents CNG as a more cost-effective alternative to gasoline to capitalize on the recent energy subsidy cuts. In line with Egypt's national strategy to foster the use of natural gas as an economically and environmentally viable source of fuel for vehicles, TAQA Gas actively works towards expanding the use of natural gas by introducing the latest available technologies. The company has successfully increased the number of CNG filling stations to 70 in 2022, up from 61 stations in 2021. TAQA Gas has also received several certifications, including ISO 14001: 2015, EGAS License of Hazardous Waste Handling, and EGAS Environmental Audit Reports. Furthermore, the company regularly conducts environmental impact assessments (EISs) and contracts professional third parties to conduct environmental measurements.

Moreover, TAQA Arabia is looking to expand Egypt's network of natural gas stations along with two other publicly owned stations, targeting the construction of 81 stations around the country by 2023, in line with the government's natural gas transition plan.

TAQA Oil Marketing employs a strict Safety, Health, and Environment (SHE) system and has risk assessment tools in place to assess, monitor, and mitigate environmental risks, in line with its parent company's strategy. On that front, the company uses high quality materials and equipment across its supply chain. Additionally, workers are regularly trained on how to respond to various risk scenarios to ensure their ability to deal with petroleum products without posing environmental risks.

Going forward, in parallel with the Egyptian government's strong energy transition movement, TAQA is looking to expand its footprint in the country's renewables sector. Accordingly, TAQA is currently exploring a number of small-to-medium scale industrial power generation projects, ranging from 40 MW to 150 MW.

TAQA Gas Environmental Indicators

Emissions

	2020	2021	2022
Scope 1	1,046.3	1,213.8	1,213.8
Scope 2	1,183.8	1,343.6	1,343.6

Overall annual consumption

Utility	2020	2021	2022
Electricity (KW/yr)	2,367,507	2,687,120	2,687,120
Diesel (liters)	390,415	452,881	452,881
Maintenance (EGP)	1,773,112	2,145,465	2,145,465

Waste disposal (tonne/yr)

	2020	2021	2022
Hazardous Waste	2.1	2.2	2.2
Empty Chemical Containers	1.3	1.3	1.3
Batteries	0.95	0.95	0.95
Plastic	36.38	38	38
Wood	2.25	2.5	2.5
Steel	77.61	78	78

TAQA Oil and Marketing Environmental Indicators

Overall annual consumption

Utility	2020	2021	2022
Electricity (KWH/year)	203,625	364,012	364,012
Diesel (liters)	3,100	3,100	3,100
Maintenance (EGP)	1,281,951	1,195,944	1,195,944

Emissions (part per million)

	2021						2022					
	CO2	CH4	NO2	HFCs	PFCs	SF6	CO2	CH4	NO2	HFCs	PFCs	SF6
Suez Terminal	437 ppm	0	0.62 ppm	0	0	0	437 ppm	0	0.62 ppm	0	0	0

Energy Intensity in Manufacturing/Ton of production

	Electricity (KWH)/ton		
	2020	2021	2022
Suez Terminal	0.26	0.42	0.42

City water use (m3)

	2020	2021	2022
Suez Terminal	3,200	3,200	3,200

Waste disposal by item (kilogram/year)

	2020	2021	2022
Hazardous Waste	40	0.270	0.270
Empty Chemical Containers	60	0.590	0.590
Bulbs and transformers	0	0	0
Batteries	0	0.5	0.5
Sludge	1,670	3,280	3,280
Scraped products	0	0	0
Carton and Paper	0	0	0
Plastic	0.855	0	0
Paper	0.855	1.760	1.760

Nile Logistics

Nile Logistics, Qalaa's river transportation subsidiary remains one of the most fuel-efficient and environmentally friendly methods of transportation available in Egypt, Sudan, and South Sudan. The company owns a large fleet of fuel-efficient, environmentally friendly river barges that transport cargo along the Nile. The company continues to transport the equivalent of 20-40 truckloads on each barge while using just a fraction of the fuel and money linked to other modes of transport.

GlassRock

GlassRock, Qalaa's USD 70 million sustainable insulation materials company, provides thermal insulation solutions that can save up to 40% of the cooling and heating load as well as minimize the global carbon dioxide footprint related to heating and cooling while using a calculated percentage of recycled materials. Additionally, building insulation can save 80% of the energy needed for heating or cooling, thus expanding the asset's life span. The company maintains a total annual production capacity of 30,000 metric tons of rockwool and 20,000 metric tons of glasswool. Both materials are key components of environmentally friendly construction as they are used to reduce carbon dioxide emitted by buildings. Glassrock implements the most efficient techniques and incorporates natural resources in an effort to reduce CO2 emissions and minimize energy consumption during the production process to deliver environmentally friendly products. During the production process, Glassrock's main objective is cutting down on carbon emissions. Additionally, 70-80% of Rock wool residue is recycled, thus tremendously reducing waste.

El Baddar

El Baddar, the printing and packaging subsidiary of The National Printing Company, develops corrugated sheets and boxes that are widely used for shipping, particularly in the food industry. The company uses recycled papers and material in the production of packaging and printing products, which are renowned in the market for their strength, durability, lightness, recyclability, and cost-efficiency. El Baddar's new state-of-the-art facility has enabled the company to expand its product range and penetrate new markets.

Dina Farms

Dina Farms is the leading private sector dairy farm in Africa, with an agricultural footprint spanning over c.10,000 acres. Dina Farms applies an efficient and advanced irrigation systems technology (drip and pivot irrigation) across its operations, and practices sustainable and responsible farming.

A 6 MW solar photovoltaic power plant has recently been constructed at Dina Farms, in collaboration with the EBRD and TAQA PV for Solar Energy, to cover 23% of its total energy consumption with clean energy. The plant is one of the first green private-to-private projects in Egypt, and all energy generated will be sold by TAQA PV to Dina Farms under a 25-year power purchase agreement (PPA).

Tawazon

Tawazon (Parent company of ECARU and ENTAG), Qalaa's solid waste management subsidiary and a pioneer in circular-waste to energy solution, has continued its strong efforts in providing cleaner and recycled alternative fuels from waste such as biomass-derived fuel (BDF), solid recovery fuel (SRF), and refuse-derived fuel (RDF) to heavy consumers as a source of thermal energy throughout 2022. As of the end of July 2022, the company produced and distributed 531,228 tons of RDF, 1,327,934 tons of organic compost, and 1,485,122 tons of biomass. Tawazon/Ecaru has been operating in Dina farms since 2016 in circular waste management, making 100% organic compost from feedstocks manure (average 100 kton annually) which serves as good input in organic farming, decreasing reliance on chemical fertilizers, and reducing the water consumption rate by three times compared to other fertilizers. This comes in line with the government's strategy to create new, decentralized approaches for agri-waste collection and recycling to create 'green jobs' and promote the efficient use of resources. Furthermore, the application of biological treatment technology to feedstock manure helps eliminate diseases and nematodes.

Ecaru

ECARU is responsible for collecting, transporting, and processing agricultural waste, and the company has been a regional leader in biomass production for the past six years. ECARU recycles agricultural residues that would otherwise be openly burned into fuel for heavy industries, such as cement manufacturing. The processing capacity of the six MRF's operated by the company in Dakahlia Governorate is c. 1,580 tons per day.

Entag

ENTAG is a solid waste management, engineering, and contracting company with various sorting and composting facilities across Egypt. The company has consulted on over 85 projects throughout Egypt and several Arab countries, thus maintaining an international presence, with projects in Saudi

Arabia, Malaysia, Libya, Sudan, Oman, and Syria. ENTAG established an Omani subsidiary that is 60% owned by ENTAG Egypt and 10% owned by ECARU in 2017.

Our Way Forward

As Qalaa Holdings continues to fuel sustainable development in Egypt and the region, we maintain our commitment to investing in diversified initiatives that enable us to realize this goal. Accordingly, we intend to:

- Take account of existing policies and practices, and work alongside subsidiaries to set and maintain group-wide HSE standards
- Continue to refine our ESG monitoring and reporting structure to collect measurable data, and accordingly set indicators/KPIs at the holding, subsidiary, and platform levels for responsible resource consumption, production, and waste management
- Ensure continued awareness of all sorts of risks across all subsidiaries, and leverage opportunities to achieve shared value and develop best practices
- Continue adopting sound, sustainable, efficient, and inclusive practices across all stakeholders across our current and potential investments
- Examine internal policies to ensure the adoption of international best practices in health, safety, governance, labor, and the environment
- Conduct industry-specific training, as needed, for senior managers in sustainability and SDG awareness at the holding and subsidiary levels
- Assist individual managers in setting goals to gradually integrate sustainability into all business operations and performance assessments
- Prioritize comprehensively benchmarking carbon footprint and continue to report voluntarily on sustainability progress
- Continue to explore and identify ways to reduce carbon footprint across our investment portfolio to reach neutrality by 2030
- Develop a plan for climate change benchmarking and set group-wide science-based targets in line with Science-Based Targets Initiatives (SBTI)
- Seek international certifications, affiliations, and reporting agencies to ensure compliance with international best practices in all sectors