ASIA, MIDDLE EAST AND AFRICA

# ENGIE AMEA SUSTAINABILITY REPORT 2023

ENGIE

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**GEERT BUNKENS**
VICE PRESIDENT
TRANSFORMATION & GEOGRAPHIES AMEA
& VICE PRESIDENT FINANCE AMEA

## Dear Stakeholders,

The publication of our third Sustainability Report for ENGIE AMEA, further reinforces our overall commitment to accelerating the transition to a carbon-neutral world and achieving our 2045 Net Zero Carbon goal, while outlining this year's progress in fulfilling our ambitious Environmental, Social and Governance (ESG) targets.

As our world continues to be confronted by multiple challenges, ranging from climate change risks, social inequalities, global energy and financial crises, at ENGIE AMEA, we have greater clarity regarding our core purpose:

- assisting our customers to decarbonize through more energy-efficient, innovative and cleaner solutions while striving to
- create sustainable growth for both shareholders and stakeholders.

This year we celebrate our key advancements in sustainability and our continued progress in the integration of our ESG principles into our operations and strategy. We remain fully committed to continuously improve and take action to support our clients, partners and customers in meeting their net zero ambitions.

Our **sustainability value creation strategy** is developed around our Net Zero ambition and the commitment towards a just energy transition.

Through solid economic performance and profitability in **Corporate Governance** we are able to invest in new projects and technologies across all regions and remain committed to promoting a **culture of compliance and transparency.**

On the **business and economic front**, we have many reasons to be optimistic. At Group Level our 2022 awarded projects have added an additional 3.9 GW of renewable energy, bringing the total installed capacity to 38 GW. Looking ahead, we will continue strategic investments in **water desalination**, making significant progress in landmark projects, and strengthening our **hydrogen portfolio** and **Battery Energy Storage Systems.** Whilst accelerating the Energy transition agenda, equally important is supporting our clients on their decarbonization journeys. We have established strong partnerships and engaged in innovative projects with private and public sector entities to decarbonize their value chain, by offering tailored **energy solutions** and expertize powered by innovative technologies.

On the **environmental** front, our efforts are twofold, focusing our attention on **decreasing our environmental footprint** across our operational portfolio, whilst supporting our clients on their decarbonization actions. Identifying, analyzing and tackling further the multiple risks deriving from climate change, and developing actions on climate adaptation and climate mitigation continue to be a major priority for us.



**"This year, we celebrate our key advancements in sustainability and our continued progress in the integration of our ESG principles into our operations and strategy."**

At Group level, we issued a new **Green Bond** for a total amount of €650 million reiterating our commitment to securing funds for promoting green investments and projects in the region. This year, we also conducted regular monitoring and reviewing processes of our GHG emissions to establish well-defined carbon budgets and trajectories, ensuring that the responsibility for managing emissions is decentralized and integrated across the operational networks of our Group. In parallel, we continue to invest in the protection of natural ecosystems and the promotion of biodiversity through our landmark initiatives, the **Blue Carbon** Mangrove Rehabilitation project in the UAE and the **Hazelwood Rehabilitation project (Australia)** all aimed at ensuring environmental restoration.

Regarding **our people,** we continue to focus on creating a healthy and secure, fair, diverse, inclusive workplace for all our employees. Our transformation journey has enabled us to adopt new ways of working and leading, that align with our purpose and business strategy. While our approach is decentralized, our actions in 2022 revolved around strengthening health and safety measures, increasing awareness, and building capacity within our teams to promote a diverse and inclusive culture. Our top priority was aligning and working with our stakeholders to support our common journey towards a low carbon economy.

At the **community level**, we continued working closely with our stakeholders and partners to make a real impact through the work of the ENGIE Foundation and the Rassembleurs d'Energies, our social enterprise. We ran numerous regional community development program towards improving livelihoods and raising the quality of life of entire communities in the regions where we operate. During this period, our primary focus was on projects that promote fair access to energy and water across AMEA on training, education, and capacity building, particularly for women and youth.

As we prepare for the upcoming COP28, both on a global scale and particularly within the UAE, we approach the future with optimism while acknowledging the significant responsibility we bear towards all our stakeholders, with a special emphasis on our customers and partners. Consequently, we remain steadfast in prioritizing collaboration, innovation, and decisive action through our projects, investments, and activities. Our unwavering commitment is to forge a more resilient, equitable, and sustainable future for all. Finally, I would like to take this opportunity to thank our internal and external stakeholders for their ongoing efforts and outstanding contributions. I am confident that our collective focus and commitment we will outperform expectations, overcome challenges, and achieve even greater progress in the years to come.

# 2022 HIGHLIGHTS

## GLOBAL STRATEGY TO NET ZERO BY 2045

**€287**
million growth CAPEX

**€2,552**
million revenue

**+150,000**
MANGROVE SEEDS PLANTED

**37.5 GW**
of installed power generation capacity

**2.3 GW**
of renewable capacity in India, Africa, Australia and Southeast Asia

**7.6 TWH**
of clean energy production

**137,641+ KWH**
saved through client decarbonization projects

**7,824**
employees

**322**
management Safety Visits

**67**
nationalities

**134,091**
hours of training

# OUR APPROACH TO SUSTAINABILITY

**In alignment with the Group's purpose to accelerate the global energy transition, our sustainability strategy is focused upon incorporating sustainability horizontally across the entire AMEA region. By strengthening our business operations, corporate governance model and business ethics policies, we enable the creation of low-carbon energy systems of tomorrow.**

## SUSTAINABILITY VALUE CREATION STRATEGY

At Group level, our Net Zero ambition, is focused on reducing our greenhouse gas emissions between now and 2045 and offsetting any residual emissions.

**Our actions are based on 4 pillars:**

- Decarbonization
- Energy efficiency
- Development of renewable energy sources
- Responsible use of resources

The sustainability value creation strategy is centered on our Net Zero ambition, our purpose and commitment to the energy transition. It aims to address the challenges of climate change, promote social justice, equity and cohesion to ensure sustainable development for all.

## VALUE CREATION AND REGIONAL STRATEGY

Our strategy is underpinned by a strong commitment to corporate responsibility and a focus on creating shared value for all stakeholders. Our approach is based on a holistic view of sustainability that takes into account economic, social and environmental factors which seeks to balance the interests of all stakeholders.

We apply the best solutions and conduct Life Cycle assessments (LCA) as well as impact studies to ensure we proactively identify and assess all potential risks and opportunities.



# OUR VALUE CREATION MODEL

**Driving Priorities**

Driving Simplification → Improving Business mix → Enhancing Performance

## INPUTS

**FINANCIAL AND MANUFACTURED CAPITAL**
- €592 million EBITDA
- Issuance of a single Green Bond of €650 million and allocation of €2.11 By the Group

**INDUSTRIAL CAPITAL**
- €287 million growth CAPEX
- €39 million of maintenance CAPEX
- 689,000 B2C contracts
- 500MW wind project in Egypt under development
- 15 water desalination plants across the Middle East

**INTELLECTUAL CAPITAL**
- 134,091 hours of training
- Strong network of affiliate companies
- Flagship Training and Development Programs

**HUMAN AND SOCIETAL CAPITAL**
- 7,824 employees (857 Female, 6,967 male)
- 1,022 new hires
- Community development projects across AMEA focused on access to energy & water and youth development programs.

**NATURAL CAPITAL**
- Solid Climate Adaptation Roadmap
- All assets under full equity ownership are ISO 14001 certified
- 33,345.61 kt $CO_2$ eq operational carbon footprint
- 150,000 mangroves seeds planted

## VALUE CREATION

**OUR GROUP PURPOSE**
To act to accelerate the transition towards a carbon-neutral economy, through reduced energy consumption and more environmentally friendly solutions. This purpose brings together the company, its employees, its customers and its shareholders, and reconciles economic performance with a positive impact on people and the planet. ENGIE's actions are assessed in their entirety and over time.

**3 KEY BUSINESS PORTFOLIO**
- Renewables
- Flexible Generation and Retail: Desalination, Green Hydrogen and Battery energy storage
- Energy solutions and District cooling services

**OUR GROUP SUSTAINABILITY PRIORITIES**
- Reducing the negative impacts of our activities on the environment, and increase their positive impacts
- Utilizing the opportunities associated with protecting the environment through the services provided whilst maintaining strong stakeholder relationships.
- Pursuing a continuous improvement approach related to Climate, Biodiversity, Water and Circular Economy
- Promoting a just transition by ensuring our actions are regional and bring benefits to the communities and countries we operate in
- Promoting employment and education whilst ensuring stakeholder inclusion in a constructive way

## TARGET: NET ZERO EMISSIONS BY 2045

## OUTPUTS

**FINANCIAL AND MANUFACTURED CAPITAL**
- €4.3 billion in growth investments at Group level
- Management Safety Visits
- Green Bond (Asia and Oceania, Middle East, Africa) is 7.4%
- €2,552 million revenue

**INDUSTRIAL CAPITAL**
- 37,450 MW of installed power generation capacity
- 2,323 MW of renewable energy

**INTELLECTUAL CAPITAL**
- 58 AMEA ExpANDers
- Silver award in "Innovation in Sustainable Technologies" Gulf Sustainability Awards 2022
- Impact Investor Award (for ENGIE Lab Singapore), Investing in Green Hydrogen 2022 forum
- "R&D Project of the Year" (ENGIE Lab Singapore) 2022 Asian Power Awards

**HUMAN AND SOCIETAL CAPITAL**
- 93% engagement score "ENGIE & Me"
- 18.6 % women in management, aiming for a global goal of 50% by 2030
- 322 safety management visits
- 134,091 hours of capacity building, through training and e- learning programs.

**NATURAL CAPITAL**
- Avoided emissions of 59,259 $tCO_2$ in the GCC from existing operational projects and saved 97,582,025 kWh of energy
- Avoided Emissions of 29,893 $tCO_2$ from over 31 operational projects in Southeast Asia and saved 40,059,300 kWh of energy
- 1,589,169,682.76 m3 clean water produced through desalination
- Continued efforts to support biodiversity projects through our blue carbon mangrove and tree planting Ecomatcher partnership

## SDGS

# STAKEHOLDER ENGAGEMENT

We strive to create value and positive long-term impact for our stakeholders. Being aware of their needs and expectations has always been an important element of our business development, especially in the culturally diverse communities in which we operate. For that reason, we engage constantly with them in an open and transparent dialogue as well as work closely with local and regional communities to ensure that environmental and social requirements are deeply embedded in our daily operations, governance approach, business, economic decisions and our long-term strategic thinking.

| KEY STAKEHOLDERS | HOW WE ENGAGE | FREQUENCY OF ENGAGEMENT |
|---|---|---|
| **Customers**<br>Include: Private and professional customers, businesses and regional authorities | Marketing and satisfaction studies<br>Measurement of Net Promoter Score (NPS)<br>Consumer panels<br>Responses to calls for tenders<br>Co-construction | Daily engagement |
| **Shareholders** | Shareholders' meetings<br>Events and visits<br>Annual General Shareholders' Meeting | Regular engagement |
| **Employees and their representatives**<br>Include: Employee representative bodies at national and local levels | "ENGIE & ME" commitment survey<br>Newsletters<br>ENGIE communication channels available internally | Daily engagement |
| **Investors**<br>include: banks, insurance companies, socially responsible investments, financial analysts, rating agencies, etc | Interviews<br>Evaluation questionnaires<br>Formal announcements<br>Meetings | Regular engagement |
| **Regulators**<br>Include: National, European and international authorities and bodies, energy and other regulators | Participation in think tanks<br>Consultations<br>Partnerships and associations | Regular engagement |
| **Civil society**<br>Include: NGOs, associations, local residents, communities, professional organizations, academia, environmental and social enterprises | Events, meetings and consultations<br>Conferences<br>Partnerships<br>Board representations and committees<br>Briefings for the public<br>Distribution of information about projects<br>Stakeholders' Committee<br>Corporate Patronage | Regular engagement |
| **Business partners**<br>Include: Suppliers, subcontractors, start-ups, etc | Calls for innovative projects<br>Support via the New Ventures Investment Fund<br>Vigilance plan<br>Submission of tenders<br>Partnerships<br>Workshops<br>Meetings | Ongoing engagement |
| **ENGIE Group** | Regular meetings<br>Formal presentations and announcements<br>Group collaboration tools<br>ENGIE University and learning and development tools | Ongoing engagement |
| **Governments** | Participation in think tanks<br>Consultations<br>Events, roundtables and conferences | Regular engagement |
| **International community and the private sector** | Partnerships<br>Think Tanks, Roundtables<br>Knowledge sharing | As required |



# MATERIALITY ASSESSMENT 2022

In recognition of the importance of materiality assessments as strategic exercises, during this reporting period, we conducted a pilot materiality assessment that was tailor made to the GCC, Pakistan and India region. Our aim was to identify the core material issues that we should prioritize and include in our Sustainability Strategy and Report content. The insights gathered helped us refocus our priorities, confirm our direction and further strengthen our strategic sustainability framework at regional level as well as align our key performance indicators, reporting targets and communication.

## OUR METHODOLOGY

The materiality methodology is guided by the GRI Standards, AA1000 the double materiality approach as emerged in the European legislation, international guidelines, and global best practices. It was also developed to reflect the Group's operations and culture, peers' performance, and stakeholder expectations. Moreover, it was customized to consider ENGIE AMEA's regional operations, local culture, national commitments, regional sector benchmarks and stakeholder maturity.

**Double Materiality Approach: Our materiality process was based upon the concept of double materiality which acknowledges that an organization should recognize, act and report simultaneously on sustainability topics that are financially material for the organization itself as well as material to the market, the environment, all external stakeholders and the world at large.**

## OUR 5 STEP PROCESS

The process, enabled us to obtain a broader and more diversified vision of stakeholder expectations regarding our sustainability direction. It included an online survey on predefined sustainability topics. Open-ended questions were also included to ensure we gather in-depth information and future focused perspectives and insights. Quantitative and qualitative information were gathered from 200 internal and external stakeholders. With regards to our external stakeholders, the online questionnaire was dispatched this year exclusively to the GCC region on a pilot basis.

**STEP 1:**
**Identification of Potential Material Topics**

We identified a list of potential material topics based on sector, organizational maturity, trends, standards and internal consultations, taking into account the Group's materiality approach

**STEP 2:**
**Development of the Materiality Questionnaire**

- Materiality questionnaire with 23 potential material topics approved
- Materiality questionnaire included both qualitative and quantitative sections

The questionnaire was dispatched online to internal and external stakeholders

**STEP 3:**
**Rating Material Topics by Stakeholders**

Each identified material topic has been rated by internal and external stakeholders based upon the concept of double materiality

**STEP 4:**
**Validation**

- Input and information collected, aggregated and processed according to specific parameters
- Material topics have been identified, prioritized and validated by ENGIE AMEA sustainability function
- Topics were mapped into a reader friendly materiality matrix

**STEP 5:**
**Communication**

The materiality matrix presented here reflects the validated outcomes and is a consolidation of the results of the exercise conducted across GCC, Pakistan and India

# IDENTIFIED MATERIAL TOPICS

The list of the 23 identified material topics below, has been structured around 4 major groups encompassing the environment, society, governance as well as operational efficiency and growth. These topics reflect the main concerns, commitments, and areas of interest with an impact upon our business, sustainable development at large.

## ENVIRONMENT

- Supporting global energy transition
- Innovative and new energy sources and fuels
- Greenhouse gas emissions (GHG) from own operations and activities
- Climate change mitigation
- Climate change adaptation
- Management of environmental impacts
- Protection and restoration of biodiversity
- Circular economy
- Environmental awareness

## SOCIETY

- Employee health, safety, and wellbeing
- Community development (CSR)
- Employee attraction, development, and retention
- Diversity, equity, and inclusion
- Access to energy and reducing energy poverty

## GOVERNANCE

- Risk management
- Engagement with stakeholders
- Business ethics and accountability
- Robust governance and leadership

## OPERATIONAL EFFICIENCY & GROWTH

- Security and resilience of installations
- Sustainable growth
- Innovation and digital transformation
- Sustainable supply chain
- Responsible and sustainable solutions

# STAKEHOLDER'S PROFILE ANALYSIS

## INTERNAL STAKEHOLDER GROUPS

During the materiality exercise, we reached out to our major business units in the GCC, Pakistan and India region and proceeded with an analysis of their responses according to the following parameters:

- MANAGERIAL LEVEL
- GEOGRAPHY
- GENDER
- WORKING GROUP
- BUSINESS UNIT

## EXTERNAL STAKEHOLDER GROUPS

This year, we reached out on a pilot basis to major external stakeholders in targeted geographies mainly in the GCC region. The external stakeholder groups that took part are as follows:

- Suppliers
- Private sector businesses
- Customers and clients
- Financial institutions
- Government and semi-governmental organizations
- NGOs
- Investors and stakeholders
- Institutions (academia and associations)
- Media

We analyzed the responses by region, age group, gender, stakeholder group and other parameters.

# MATERIALITY

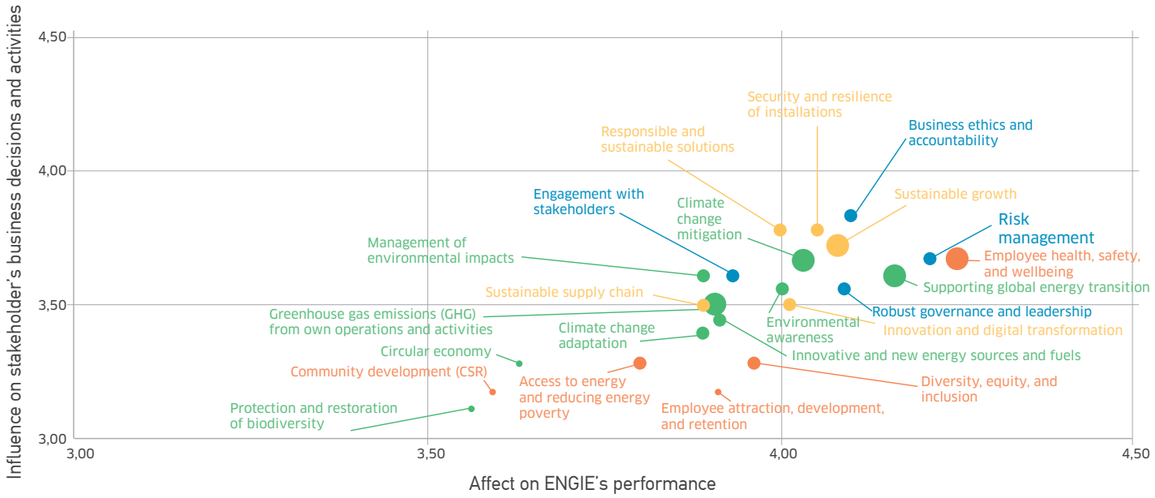
The materiality matrix prioritizes the identified material topics in terms of how material they are to ENGIE AMEA and to selected external stakeholders.

## MATERIAL TOPICS AND PERFORMANCE

The matrix plots the topics based on the feedback of stakeholders. We asked internal and external stakeholders to rank topics based on how much the selected topics affect:

- the business performance of ENGIE AMEA (denoted on the x axis from the internal stakeholders' responses)
- and how much they influence the business decisions of external stakeholders (denoted on the y axis based on external stakeholders' responses).

The size of the circle depicts all stakeholders' view on the impact of the selected topics on sustainability.



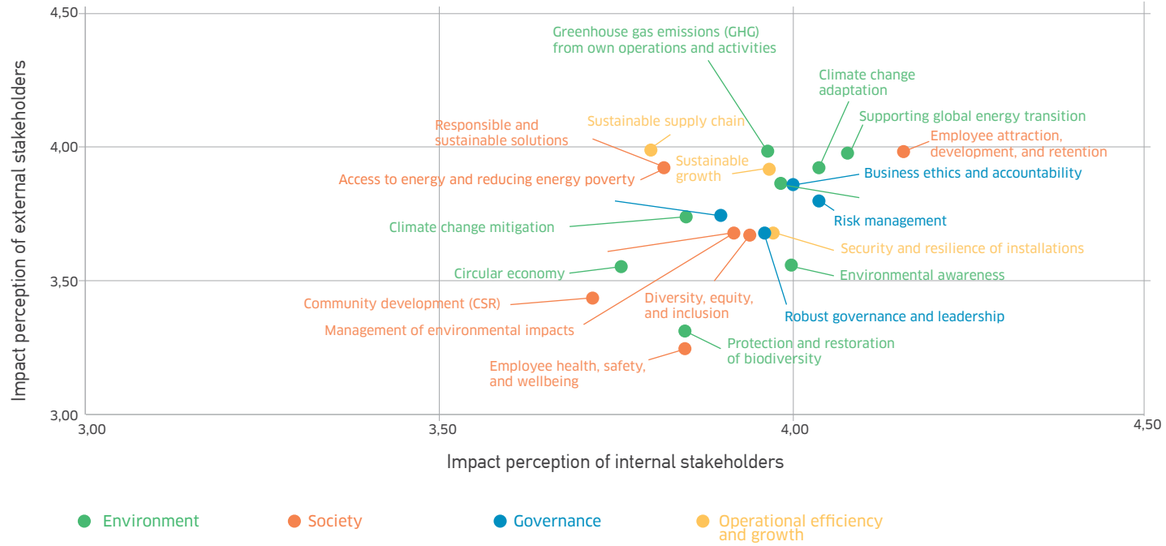

**Impact:**

- Low = 3.50 - 3.69
- Moderate = 3.70 - 389
- High = over 3.90



## IMPACT MAPPING

This matrix plots the impact of material issues based on the responses of internal and external stakeholders. The perception of internal stakeholders regarding the impacts is shown on the horizontal axis and the perception of impacts of external stakeholders is presented on the vertical axis. The top right quadrant of the matrix presents the topics that both groups believe have the highest impact on sustainable development.




## KEY FINDINGS AND OUTCOMES

The results of this analysis are aligned with the major outcomes of the equivalent exercise conducted at Group level, where 4 fundamental issues were identified as overarching elements of the Group's activities:

- **Key points include: occupational health and safety, security and resilience of facilities, business ethics and compliance, diversity, and inclusion in the workplace.**
- **Being a pilot exercise, the effort highlights the overall commitment of ENGIE AMEA to enhance the engagement with all key stakeholders both internally and externally.**
- **The exercise reflects the intention of ENGIE AMEA to invest further in sustainability actions based on the results of this extensive exercise and continue to conduct this exercise across its AMEA portfolio.**

# MEMBERSHIPS AND ASSOCIATIONS

We want to remain on top of all the latest trends and developments that affect our business. Through our memberships, associations, links with chambers of commerce, regional and national alliances, we demonstrate our role in the energy transition dialogue.

## GCC

**Business and Industry Associations:**

- MENA Hydrogen Alliance
- Dii Desert Energy
- CCI France in the United Arab Emirates (UAE) and Kingdom of Saudi Arabia (KSA) through French Business Councils
- Dubai Chamber of Commerce
- Middle East Solar Association (MESIA)
- Global Compact Membership UN Global local chapters of UAE and KSA
- Clean Energy Business Council (CEBC)

**Media/Press**

- Middle East Economic Digest (MEED)
- Non- Governmental Organizations
- International Desalination Association (IDA)

## SOUTHEAST ASIA

- Chambers of Commerce in Malaysia, Singapore and the Philippines
- Malaysian Gas Association (MGA)
- Malaysian Green Technology Corporation (MGTC)
- Malaysian Investment Development Authority (MIDA)
- Singapore Business Federation (SBF)
- Singapore National Employers Federation (SNEF)
- Singapore Industrial and Services Employers Union (SISEU)

## AUSTRALIA

- Clean Energy Council (CEC)
- Australian Energy Council (AEC)
- French Australian Chamber for Commerce and Industry (FACCI)
- Energy Efficiency Council (EEC)

## AFRICA

- Climate Leaders Coalition (CLC) Africa
- South African Energy Storage Association (SAESA)
- South African Photovoltaic Industry Association (SAPVIA)
- South African Wind Energy Association (SAWEA)
- French-South African Chamber of Commerce and Industry (FSACCI)
- French Chamber of Commerce and Industry in Morocco (Chambre Française de Commerce et d'Industrie du Maroc)
- Fédération de L'Energie Morocco:
- Cluster Green H2
- Renewables Energies Cluster
- ASMEX - Moroccan Association of Exporters

## INDIA

- Indo-French Chamber of Commerce and Industry (IFCCI)
- Federation of Indian Chamber and Commerce and Industry (FICCI)



# HOW WE CONTRIBUTE TO THE SDGS

The Group materiality assessment exercise leads us to consider the alignment with the Sustainable Development Goals with a renewed approach and closer alignment with the priorities of the Group. As such, we recognize key contribution to 6 Sustainable Development Goals and significant contribution to 8 others. This approach is aligned with our corporate purpose, our sustainable growth strategy, the stakeholder input and our overall commitments to our stakeholders and operating principles.

At regional level we continue to align with ENGIE's key prioritized 14 SDG's and endeavor to further expand our endeavor through both environmental and social responsibility projects and business development initiatives in the diverse regions where we operate.


## PLANET

- 37.5 GW installed power provided
- 2.3 GW renewable capacity in AMEA; supports energy transition
- Tabreed: 1.26 million tons cooling, 86 plants in GCC
- Net Zero Carbon goal by 2045
- Hydrogen and BESS projects in Australia and South Africa for stable power supply and decarbonization actions
- Long-term partnerships for green energy transition
- Emblematic "Blue Carbon" Abu Dhabi biodiversity initiative
- 1,589,169.7 million m3 drinkable water from desalination
- Clean drinking water projects in Pakistan, India, South Africa

## PEOPLE

- Assets certified to ISO 45001 and ISO 14001 standards
- Effective management of occupational hazards and incidents
- Prioritization of employee wellbeing and mental health
- 134,091 hours of training delivered
- Strong commitment to diversity and inclusion
- Zero tolerance for discrimination, harassment, corruption
- Ambitious gender balance goals with currently 19% of management positions occupied by women
- Investment in remote/disadvantaged communities' education
- ENGIE Foundation supports vulnerable communities
- Award winning CSR initiatives for workforce transition, job creation, community investment

## PROFIT AND VALUE

- Comprehensive Sustainability Strategy with regional, country, and asset-level action plans and KPIs
- Climate adaptation plans for all assets by 2030
- Develop innovative decarbonization solutions with partners
- Jubail 3B, Yanbu 4 projects: leading renewables-powered desalination
- Nugen Project: green hydrogen truck for mining industry decarbonization
- Social and environmental criteria in purchasing decisions with extensive supplier support
- Circular approach for material supply, inventory optimization and waste minimization
- Public-private partnerships for climate-neutral economy and just energy transition

# ENGIE AMEA

**JULIA MARIS,**
CHIEF SUSTAINABILITY OFFICER / VICE PRÉSIDENTE RSE
CHAIR OF / PRÉSIDENTE DE RASSEMBLEURS D'ENERGIES

## Dear Stakeholders,

As a leader in the energy transition and consistent with our organizational purpose, we continue to bring value and transparency to our stakeholders across the world. Today, we are pleased to release ENGIE AMEA's regional sustainability report.
Covering a vast geographic area that includes Asia, Middle East, Africa as well as Australia and New Zealand, this report reflects our sustainability commitments, our performance and our projects' focus on supporting the energy transition, whilst ensuring a positive impact on society and the environment, further promoting and strengthening our ambitious vision for Net Zero Carbon target by 2045.

**"As a leader in the energy transition and consistent with our organizational purpose, we continue to bring value and transparency to our stakeholders across the world."**

Speaking with one voice, this endeavor reiterates our aim to remain a proactive energy partner for progress in the region, working closely with our local and regional stakeholders to ensure that environmental, social as well as governance considerations are truly embedded in our daily operations and business decisions, while setting tangible targets for our sustainable growth in the future.

# OUR STORY

ENGIE is a global industry leader in low-carbon energy, water supply and related services. With almost 50 years presence in the region, ENGIE AMEA comprises a vast and culturally diverse region that includes countries/regions we operate in such as Southeast Asia, Australia, New Zealand, North Africa, South Africa, India, GCC and Pakistan which are particularly important for the Group's business strategy and future growth. As a regional provider of energy, water and energy efficiency solutions, our innovative products and services, state-of-the-art technologies and technical expertise of our people help build resilient, sustainable and high-quality businesses and economies that ensure a sustainable future.

## OUR BUSINESS PORTFOLIO

**We continue to accelerate our growth and investments in the key drivers of the energy transition.**

- **Renewables: include solar, wind and geothermal energy production**
- **Flexible Generation and Retail: include desalination, green hydrogen and battery energy storage**
- **Energy Solutions: provide sustainable energy and service solutions for cities, communities, industries, and properties**

# THE ENGIE FAMILY: ENGIE GROUP

Guided by its purpose, the Group supports its customers to decarbonize through more energy-efficient cleaner solutions. Operating in 31 countries, ENGIE relies on a streamlined business model that seeks to achieve with confidence a balanced energy mix and energy transition through its 4 core businesses:

- Large development of affordable renewable energy
- Resilient energy supply, thanks to flexible generation capacities
- New distributed energy infrastructure to decarbonize our customers' value chain
- Existing infrastructure to ensure the security of supply and minimize the cost of transition

**"Simplified and refocused, ENGIE Group is committed to implementing its sustainable growth strategy and achieving its Net Zero Carbon goal by 2045"**

## OUR NETWORK OF ENGIE SUBSIDIARIES

Our customers are supported by a comprehensive network of ENGIE subsidiaries that specialize in decarbonization solutions, innovation and advisory services, which strengthens our capabilities across the entire value chain. More information can be found on page 68-75 of this report.

### ENGIE SUBSIDIARIES IN THE REGION:

TRACTEBEL ENGIE

RED

ENGIE Impact

ENGIE

Laborelec

ENGIE ENERGY ACCESS

GLOBAL ENERGY MANAGEMENT & SALES



## OUR INTEGRATED BUSINESS MODEL AND 2030 AMBITIONS

### ENERGY SOLUTIONS

Distributed infrastructure to decarbonize our customers

Local energy networks

On-site energy production

Energy performance and management

Adding **8GW of decentralized energy network capacity** by 2025 vs. 2020 in installed asset base

### RENEWABLES

Growing renewables capacity

Onshore Wind

Offshore Wind

Solar PV

Hydro

**80 GW** of renewable electricity capacities

**+4 GW** on average per year for 2022-2025

**+6 GW** on average per year for 2026-2030

### NET ZERO EMISSIONS BY 2045

### FLEXIBLE GENERATION & RETAIL

Bring more flexibility to the system

Pumped Storage

CCGT

Battery storage

Coal phase by 2027

Development of 10 GW of battery storage capacity by 2030

Development of 4 GW of renewable hydrogen production capacity by 2030

### NETWORKS

Leveraging existing infrastructure to support growth

Networks

Biomethane, Hydrogen

**Production 10 TWh of biomethane per year** by 2030

Development of 4 GW of renewable hydrogen production capacity by 2030

**1 TWh** of hydrogen stored in salt caverns in 2030

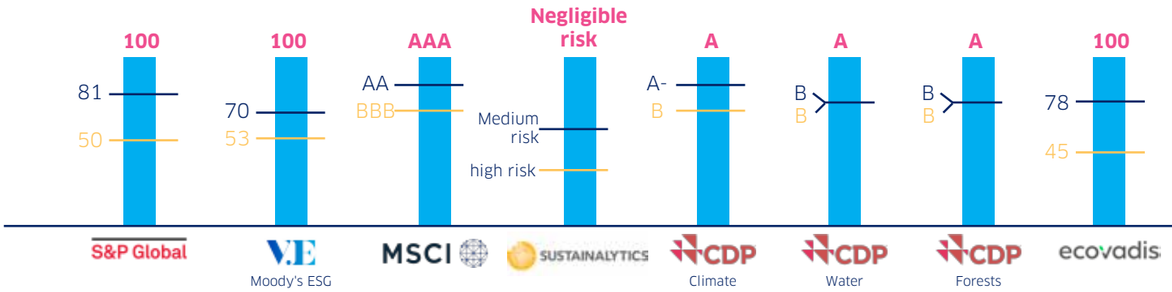
**700 km** of hydrogen transmission networks in 2030

### GEMS

ENERGY MANAGEMENT EXPERTISE
• Commercializing renewables
• Optimizing our fleet and monetizing its flexibility


## 2022 ESG RATINGS

The Group is listed in the main financial indices: CAC 40, Euronext 100, FTSE Eurotop 100, MSCI Europe as well as the principal non-financial indices: DJSI World, DJSI Europe, Euronext Vigeo World 120, Euronext, Vigeo Europe 120, Euronext Vigeo Eurozone 120, Euronext Vigeo, France 20, STOXX® Europe 600 ESG-X, STOXX® Europe 600 ESG, Broad Market, STOXX® Global 1800 ESG Broad Market, STOXX®, Global 1800 ESG-X, MSCI EUROPE ESG Universal Select, MSCI EUROPE ClimateChange CTB, MSCI EMU ESG, MSCI World ESG Universal Select, MSCI World Climate Change CTB, CAC 40 ESG, Bloomberg Gender-Equality Index.






# OUR REGIONAL FOOTPRINT

Aligned with the Group's overall commitments, we build our regional sustainability strategy with a comprehensive understanding of the unique local characteristics, conditions and market particularities within the countries we operate in.

### PLANET

- To reduce GHG emissions in line with our Net Zero 2045 goal
- Exit coal by 2027 globally
- Support our customers on their decarbonization journeys
- To reduce our water consumption
- To protect and restore biodiversity within the areas we operate in

### PEOPLE

- To strengthen our health and safety policies as well as ensure effective implementation of our "No life at risk" motto
- To promote a high quality of work-life for employees
- To consistently promote the adoption of ethical standards and compliance measures
- To advance education and foster community development
- To advocate for and advance human rights

### PROFIT

- To support access to clean affordable energy for all
- To support national sustainability visions and goals across all our markets of operations
- To boost local employment opportunities and promote a just energy transition
- To strengthen and expand sustainable supply chains

# OUR REGION IN NUMBERS

## ACCELERATING THE ENERGY TRANSITION THROUGH A DIVERSIFIED ENERGY STRATEGY

- RENEWABLES
- ENERGY SOLUTIONS
- FLEXIBLE GENERATION & RETAIL

### GCC

28,518 MW thermal capacity in operation
24 assets in GCC

### PAKISTAN

931.29 MW thermal capacity in operation
2 thermal plants

85 district cooling plants via Tabreed

1.6 billion $m^3$ of desalinated water

+10.6 million people served daily with potable water

4,907 employees

### INDIA

1,073 MW of renewable capacity in operation

13 Assets across the Indian states of (Gujarat, Uttar Pradesh, Tamil Nadu, Telangana, Andhra Pradesh, Punjab and Rajasthan)

200 MW of renewable energy under development

80 employees

### SOUTHEAST ASIA

155 MW renewable capacity in operation

2,564 MW at capacity of thermal operations

5 District Cooling Plants under development and in operation

2,266 employees

### NORTH & SOUTH AFRICA

951 MW renewable capacity in operation

2,253 MW power capacity from thermal assets in operation

500 MW of renewables under development

+240 employees

1 Hydrogen proof concept project

### AUSTRALIA

165 MW of renewable capacity in operation

857 MW capacity in thermal operation

1 Hydrogen project under development

330 employees

Figures represent 100% installed capacity in operation

# ENGIE AMEA BUSINESS PORTFOLIO

Ras Ghareb

# OUR RENEWABLES PORTFOLIO

## Clean Energy is a strategic priority

Inherently abundant, carbon-free and increasingly affordable, renewable energy remains a crucial pathway to achieving global net-zero carbon emissions. In alignment with the Group's ambitious targets of 80 GW by 2030, we aim to expand our renewables technologies and to continue working closely with our local partners and customers to help them embark on their energy transition journey as well as utilize all the latest technologies and proven technical expertise in renewables; such as solar, wind, geothermal energy and power purchase agreements (PPAs).

### 2022 HIGHLIGHTS

**2.3 GW renewables currently in India, Africa, Australia and Southeast Asia**

**7.6 TWh of clean energy production in 2022**

**376 employees in renewables**

**In 2022, ENGIE AMEA was awarded new projects that have resulted in an additional 500 MW of renewable capacity, demonstrating the company's commitment to accelerating the transition towards clean energy.**



### RENEWABLE CAPACITY

**2.32 GW**
Renewable capacity at the end of 2022

**1.14 GW**
onshore wind

**1.18 GW**
from solar

"Advancing our renewable energy portfolio is vital to the realization of our Group's ambition and targets to transition towards a carbon-neutral economy. In AMEA, ENGIE operates 2.3 GW of solar Photovoltaic (PV) and Concentrated Solar Power (CSP) and onshore wind renewable capacity. We broke ground to develop the largest wind farm in the AMEA region, the Red Sea Wind Energy project with a capacity of 500 MW, in Egypt. Through our focused business strategy, we work closely with our partners in the countries in which we operate to enable achievement of their identified decarbonization goals".

**- MOHAMED HOOSEN**
MANAGING DIRECTOR, RENEWABLES AMEA AND COUNTRY MANAGER SOUTH AFRICA

# OUR RENEWABLES FOOTPRINT

## RENEWABLE ENERGY CAPACITY BY COUNTRY AND TECHNOLOGY

### SOUTH AFRICA

Concentrated Solar Power
200 MW capacity

Solar Photovoltaic
17.8 MW capacity

Wind onshore
94 MW capacity

### SENEGAL

Solar Photovoltaic

60.0 MW capacity

### EGYPT

Wind onshore technology

262.5 MW capacity

Gulf Of Suez 2 (500 MW)
under development

### MONGOLIA

Wind onshore technology

55.0 MW capacity

### MALAYSIA

Solar Photovoltaic

100.0 MW capacity

### AUSTRALIA

Wind onshore technology

165.0 MW capacity

Hills of Gold Wind farm (420 MW)
under development

### MOROCCO

Wind onshore

316.4 MW capacity

### INDIA

Solar Photovoltaic 805.5 MW

Wind onshore 267.9 MW

Gujarat Urja Vikas Nigam Ltd
(200 MW)
under development

Figures represent 100% installed capacity in operation

# OUR PROGRESS ON THE ENERGY TRANSITION

| RENEWABLES (RES) BY TECHNOLOGY | INSTALLED CAPACITY (MW) | | | ELECTRICITY OUTPUT (TWH) | | |
|---|---|---|---|---|---|---|
| | At 100% | In % of Consolidation | Net Ownership | At 100% | In % of Consolidation | Net Ownership |
| Onshore wind | 1,143 | 651 | 630 | 4.1 | 1.8 | 1.9 |
| Solar | 1,183 | 573 | 568 | 2.5 | 1.2 | 1.2 |
| *Other RES | - | - | - | 1.0 | 0.4 | 0.4 |
| Total | 2,326 | 1,225 | 1,198 | 7.6 | 3.4 | 3.4 |

* Other RES: ENGIE shares at the Rantau Dedap Geothermal Power Plant were sold to Japanese oil and gas company INPEX through INPEX Geothermal Development Co. Ltd in the last quarter of 2022, however, electricity output is reported prorata upon its sale.

## THE 100 MW KERIAN SOLAR PROJECT (LSS3) IN MALAYSIA HAS STARTED ITS COMMERCIAL OPERATIONS

The Kerian Solar Project, developed by ENGIE and Kerian Solar, a special-purpose company in Malaysia, has a 100 MW (136.44 MWp) capacity. It is expected to supply more than 212 GWh of power per year, offsetting around 139,000 tons of $CO_2$ annually which is the equivalent of eliminating the annual carbon emissions of 11,800 Malaysian households.

### KERIAN SOLAR PROJECT

**100 MW**
capacity

**212 GWh**
power per year

**139 k**
tons of $CO_2$ annually

**11,800**
Malaysian households



ENGIE 200 MW Solar Power Plant, Ranghanesda Gujarat

## AN AMBITIOUS RENEWABLES PROJECT IN AUSTRALIA IS EXPECTED TO PROVIDE POWER TO 182,000 AUSTRALIAN HOMES.

The Hills of Gold Wind Farm project, currently under development, will involve the construction, commissioning and operation of a wind farm with up to 65 wind turbine generators and associated ancillary infrastructure to support a generating capacity of up to 420 megawatts. Once constructed, it will supply up to 1,000 gigawatt hours per annum, the equivalent energy to power 182,000 average Australian homes.

## ENGIE WAS SELECTED AS THE PREFERRED BIDDER FOR A 200 MW SOLAR PROJECT IN THE STATE OF GUJARAT, INDIA

Gujarat Urja Vikas Nigam (GUVNL) has selected ENGIE India for a 200 MW solar project in the state of Gujarat. ENGIE secured its position in the 750 MW GUVNL Phase (XVI) auction process where it was one of the preferred bidders for 200 MW.

### ENGIE AWARDED A 500 MW WIND POWER PLANT IN EGYPT

We are proud of being able to contribute to Egypt's efforts towards a more sustainable future, while reinforcing our position as the leading renewable energy player in the country. The consortium will operate and maintain the wind farm under a 25-year Power Purchase Agreement (PPA) with the Egyptian Electricity Transmission Company (EETC). The plant will be connected to the grid over 2 phases with full commercial operation planned in Q3 2025, expected to deliver clean power to more than 800,000 Egyptian homes. The project helps accelerate Egypt's transition to renewable power generation and will reduce $CO_2$ emissions by approximately 1 million tons annually. It falls under the energy pillar of the Nexus of Water-Food-Energy (NWFE) program; an initiative that was presented at COP 27 in November 2022 by the Egyptian government, expected to contribute towards the energy transition.

### KEY NUMBERS

**25 year** Power Purchase Agreement (PPA)

**800 k** Egyptian homes

**1 million** tons of $CO_2$ emissions reduced annually

# AWARDS AND RECOGNITIONS

### BEST LARGE-SCALE PROJECT

Winner in the 'Best Large-Scale Project' category, for its 200 MW solar power project in Raghanesda, Gujarat, at the Indian Solar Awards 2022, organized by Mercom. This distinction was the second consecutive award for ENGIE in India for its solar projects.



Tarfaya wind plant

Thermal power plants

# OUR FLEXIBLE GENERATION AND RETAIL PORTFOLIO

## Providing diverse and affordable power generation

With our flexible generation and retail portfolio, we provide the flexibility that the electric system requires, and the support our customers need in moving towards decarbonization. At ENGIE AMEA, we continue to make significant and sustainable contributions to the local economies and communities through our long-term investments in diverse and affordable power generation for a vast region that includes the GCC, Pakistan, South Africa, Morocco, Australia, and Singapore.

## 2022 HIGHLIGHTS

**Over 190 TWh of thermal power generated**

**35 GW thermal capacity in 35 thermal assets**

**24 assets in GCC countries**
**2 in Pakistan**
**3 in Africa**
**1 in Southeast Asia**
**5 in Australia**

| FLEXIBLE GENERATION AND RETAIL | INSTALLED CAPACITY (MW) | | | ELECTRICITY OUTPUT (TWH) | | |
|---|---|---|---|---|---|---|
| | At 100% | In % of Consolidation | Net Ownership | At 100% | In % of Consolidation | Net Ownership |
| Natural gas | 32,737 | 10,173 | 9,971 | 184.9 | 56.7 | 56.3 |
| Coal | 1,250 | 416 | 416 | 9.7 | 3.2 | 3.2 |
| Other | 1,137 | 515 | 478 | 1.4 | 0.5 | 0.5 |
| Total | 35,124 | 11,105 | 10,865 | 196.0 | 60.4 | 60.0 |



"Energy security, affordability, and the transition to a low-carbon economy are not mutually exclusive goals. By developing innovative solutions that combine these objectives, we can create a sustainable energy future that benefits both the economy and the environment".

**- FREDERIC CLAUX**
MANAGING DIRECTOR, FLEXIBLE GENERATION AND RETAIL AMEA AND COUNTRY MANAGER GCC & PAKISTAN

# OUR FLEXIBLE GENERATION AND RETAIL FOOTPRINT

## 2,331,563.44 GJ

Energy Net Hot Water Generated

### GCC

SAUDI ARABIA: 7,516.3 MW
QATAR: 3,755 MW
UAE: 9,717.9 MW
OMAN: 2,916.6 MW
BAHRAIN: 3,093.5 MW
KUWAIT: 1,519.1 MW

### MOROCCO

1,250 MW

### PAKISTAN

931.3 MW

### SINGAPORE

2,564.6 MW

### AUSTRALIA

723 MW

134 MW

### SOUTH AFRICA

1,002.8 MW

Coal
Natural gas
Other

Figures represent 100% installed capacity in operation

RO plant

# OUR DESALINATION PORTFOLIO

## Ensuring reliable and sustainable supply of water in water scarce environments

We have been supporting our Middle East partners for over 3 decades to achieve their ambitious national visions and plans towards low-carbon transition and sustainable growth. Through our desalination technologies, we offer sophisticated and innovative solutions, best-in-class operations and maintenance services, whilst continuing to invest in infrastructure and technical expertise, taking into consideration the environmental aspects and impacts.

## 2022 HIGHLIGHTS

**5.5 million m³/day** of produced capacity operated in AMEA

**15 plants** in operation

**3 reverse osmosis plants** under construction

**1** in development (UAE)

**+10.6 million** people served daily with potable water (at full capacity)



# OUR DESALINATION PLANTS ACROSS ENGIE AMEA


## UAE

**Total Desalination Capacity 561.5 MIGD**

- Shuweihat 1 IWPP: 100 MIGD (20% owned)
- Shuweihat 2 IWPP: 100 MIGD (20% owned)
- Mirfa IWPP: 52.5 MIGD (20% owned)
- Fujairah F2 IWPP: 130 MIGD (20% owned)
- Al Taweelah IWPP: 84 MIGD (20% owned)
- Umm Al Nar IWPP: 95 MIGD (20% owned)
- Mirfa 2 IWP: 120 MIGD – Under development

## OMAN

**Total Desalination Capacity 88 MIGD**

- Barka 2 IWPP: 26 MIGD (30.9% owned)
- Barka 4 IWP: 62 MIGD (27% owned)

## SAUDI ARABIA

**Total Desalination Capacity 401 MIGD**

- Marafiq IWPP: 176 MIGD (20% owned)
- Jubail 3B IWP: 125 MIGD (under construction)
- Yanbu 4 IWP: 100 MIGD (under construction)

## KUWAIT

**Total Desalination Capacity 107 MIGD**

- Az Zour North IWPP: 107 MIGD (17.5% owned)

## BAHRAIN

**Total Desalination Capacity 138 MIGD**

- Al Hidd IWPP: 90 MIGD (30% owned)
- Al Dur IWPP: 48 MIGD (45% owned)

## QATAR

**Total Desalination Capacity 123 MIGD**

- Ras Laffan B IWPP: 60 MIGD (40% owned)
- Ras Laffan C IWPP: 63 MIGD (20% owned)

## MOROCCO

**Total Desalination Capacity +/- 25 MIGD**

- Dakhla IWP: +/- 25 MIGD (under construction)

MIGD: Million Imperial Gallons per Day

**Our desalination plants are either co-generation plants producing water and power (IWPP) or independent water production plants (IWP).**

| DESALINATED WATER GENERATED BY COUNTRY AND YEAR (m³) | 2022 | 2021 |
|---|---|---|
| United Arab Emirates | 709,305,112.40 | 759,984,235.1 |
| Bahrain | 195,047,743.39 | 211,918,383.6 |
| Kuwait | 167,735,038.21 | 163,739,476.4 |
| Oman | 117,898,150 | 117,386,789.1 |
| Qatar | 156,847,805 | 166,337,253.0 |
| Saudi Arabia | 281,180,944 | 279,050,568.0 |
| Total | 1,628,014,793 | 1,698,416,705.3 |

# OUR PROGRESS ON DESALINATION PROJECTS

**We are committed to making strategic investments in the advancement of water desalination, ensuring a sustainable future for water resources.**

RO plant

## KEY FACTS

**61 MWp**

of power produced via the PV plant

**570,000 m³/day**

of expected production of potable water through reverse osmosis technology.
The plant is located in Jubail Industrial City and the water produced will serve Riyadh and the Eastern Province.

## POTABLE WATER THROUGH REVERSE OSMOSIS TECHNOLOGY (JUBAIL 3B IWP)

### 2022 MILESTONES

During this reporting period, we began:

- Building on the ~59 km Overhead Transmission Lines
- Assembly of the substation, excavation work for the intake and outfall structures with significant progress on assembly of 380 KV gas insulated switchgear and Reverse Osmosis (RO) Plan
- Installation of the marine intake and outfall pipes
- Installation of energy recovery device racks, relay panels and the substation 13.8KV switchgear
- Additional progress includes the installation of the main steel structures at the RO building, potable water storage tanks and offshore pipes installation. The expected completion is end June 2024



## SEAWATER DESALINATION PLANT IN SAUDI ARABIA (YANBU 4 IWP)

### 2022 MILESTONES

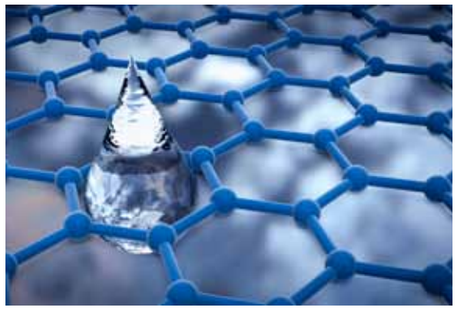
- Erection of the towers for the overhead transmission line
- Registered 3,200 workers on-site.
- Expected completion date is end of 2023

## KEY FACTS

- Saudi Arabia's first integrated solar plant and water transmission pipeline in a desalination asset
- Total storage capacity of 1,240,000 m³
- Supplying potable water to the cities of Madinah and Makkah

## AWARD OF MIRFA 2 REVERSE OSMOSIS (M² RO) INDEPENDENT WATER PROJECT (IWP)

EWEC (Emirates Water and Electricity Company) announced the award of the Mirfa 2 Reverse Osmosis (M2 RO) Independent Water Project (IWP) to a consortium and operations of a seawater reverse osmosis plant with a capacity of 120 million imperial gallons per day (equivalent to approximately 545,000 m3) and with a storage capacity of 545,000 m3 per day. The project's financial closure is expected to occur in the first quarter of 2023, enabling initial water production in the summer of 2025 and full production by the third quarter of 2025.



# AWARDS AND RECOGNITIONS

## ENGIE AMEA HAS WON:

- The "Silver Award" for the Yanbu 4 project in the "Innovation in Sustainable Technologies" category at the Gulf Sustainability Awards 2022
- The "Water Deal of the Year" Award, at the JGlobal Awards, for Jubail3B desalination in Saudi Arabia

# OUR HYDROGEN APPROACH

## Investing in the future of clean energy

At ENGIE, we recognize the critical role that hydrogen (H2) plays in the energy transition, as it provides a ray of hope for a cleaner and more revitalized future for the energy sector. With innovative technologies and strategic investments, we have the potential to transform the energy landscape, mitigating the impacts of climate change and ensuring a sustainable future for all. Towards that direction, we have set ambitious targets for the development of renewable hydrogen. ENGIE is present along the entire hydrogen value chain: from production to distribution, including pipeline transport and storage in salt caverns. ENGIE is committed to providing solutions for decarbonizing industry and heavy mobility, in France, in Europe, and several selected geographies. 2022 has been a year of achievements for our projects, and we are expecting an acceleration in 2023.

In parallel, with the view to facilitate the acceleration and scalability of hydrogen, the Group holds a significant position as a founding member of the Hydrogen Council; a global initiative dedicated to expediting the adoption of hydrogen as a key driver of the energy transition.

## 2022 HIGHLIGHTS

**Large-scale renewable hydrogen activities in 30 industrial green hydrogen projects**

**A network of 100 experts fully dedicated to hydrogen development**

**ENGIE a key partner along the H2 value Chain**

## ACTING TOGETHER WITH OUR STAKEHOLDERS

Working towards our goal to create new production, operation and distribution circuits, we rely on trusted partners, internal and global expertize namely the detailed knowledge of the regions in which we are present and their ability to act over the entire value chain.

| PRIORITIES | | AMBITION 2030 |
|---|---|---|
| PRODUCTION | Renewable Hydrogen production capacity | 4 GW |
| INFRASTRUCTURES | Dedicated hydrogen pipelines<br>$H_2$ Underground storage capacity | 700 KM<br>1 TWH |
| MOBILITY | Territorial partnerships for renewable $H_2$ mobility | >100 refuelling stations $H_2$ |



Renewable Hydrogen

In AMEA, we work closely with our stakeholders to ensure the ongoing collaboration within the industry and the involvement of the government to effectively decrease costs, eliminate obstacles for market entry, enhance economies of scale, and facilitate the integration of new technologies into the energy transition.

Our region presents a unique potential to lead the way in advancing renewable hydrogen, a vital yet untapped catalyst for the energy transition. As numerous economies concentrate on expanding their renewable power generation capacity, the ability of green hydrogen to be transported and stored, positions the Middle East region as a strategic hub and distributor for this promising energy source.

### THE MENA HYDROGEN ALLIANCE: SHAPING THE AGENDA FOR THE FUTURE OF CLEAN HYDROGEN

ENGIE AMEA is actively involved as a partner in the MENA Hydrogen Alliance, bringing together private and public sector actors as well as science and academia to kick-start green hydrogen economies. The Alliance acts as an impartial advisor to promote pilot projects in the region, elaborates potential business cases and structures for large projects, proposes the necessary policy and regulatory frameworks as well as educates different stakeholders on all relevant aspects of the hydrogen value chain, including the export of virtual and physical green energy.

### ENGIE AND MASDAR PARTNERSHIP

ENGIE and Masdar form $5 billion strategic alliance to drive UAE's green hydrogen economy. In January 2022, Masdar, and ENGIE signed a collaboration agreement with Fertiglobe, the strategic partnership between OCI N.V. and the Abu Dhabi National Oil Company (ADNOC), and the world's largest seaborne exporter of urea and merchant ammonia with the aim to co-develop a globally cost-competitive renewable hydrogen facility in the UAE to support the production of green ammonia. The feasibility and the advanced studies have already been completed.

This is expected to be the first project in the world to produce fully RED 2 compliant ammonia for export into Europe by 2027.

**Capacity: 100 MW electrolyzer for 50 Ktpa of green ammonia production**

### ENGIE AND POSCO PARTNERSHIP

In 2022, ENGIE and POSCO, the world-leading South Korean steel manufacturer, inked a Memorandum of Understanding (MoU) to explore joint development opportunities for green hydrogen production and related infrastructure in the Middle East and other global markets.

### HYDROGEN DEVELOPMENT IN OMAN

In November 2022, ENGIE bid on Hydrogen Oman's (Hydrom) Auction Phase A, Round 1, for a land parcel to build an integrated renewable ammonia plant. Hydrom's ambition is to award land blocks for green hydrogen projects in 2023, in order to meet the 2030 production target of 1 MTPA of green hydrogen. Oman expects the winning developers to deliver integrated projects, covering the full green hydrogen value chain from renewable production, to hydrogen production, hydrogen derivatives conversion, to securing the off take for their projects.

# OUR HYDROGEN FOOTPRINT

## OMAN

ENGIE participation on Hydrogen Oman's (Hydrom) Auction Phase A, Round 1, for a land parcel to build an integrated renewable ammonia plant.

## UNITED ARAB EMIRATES

### CRYSTAL

Development, construction and operation of a hydrogen facility to produce renewable ammonia.

ENGIE Company/Consortium: Masdar–Fertiglobe.

## SOUTH AFRICA

### NUGEN

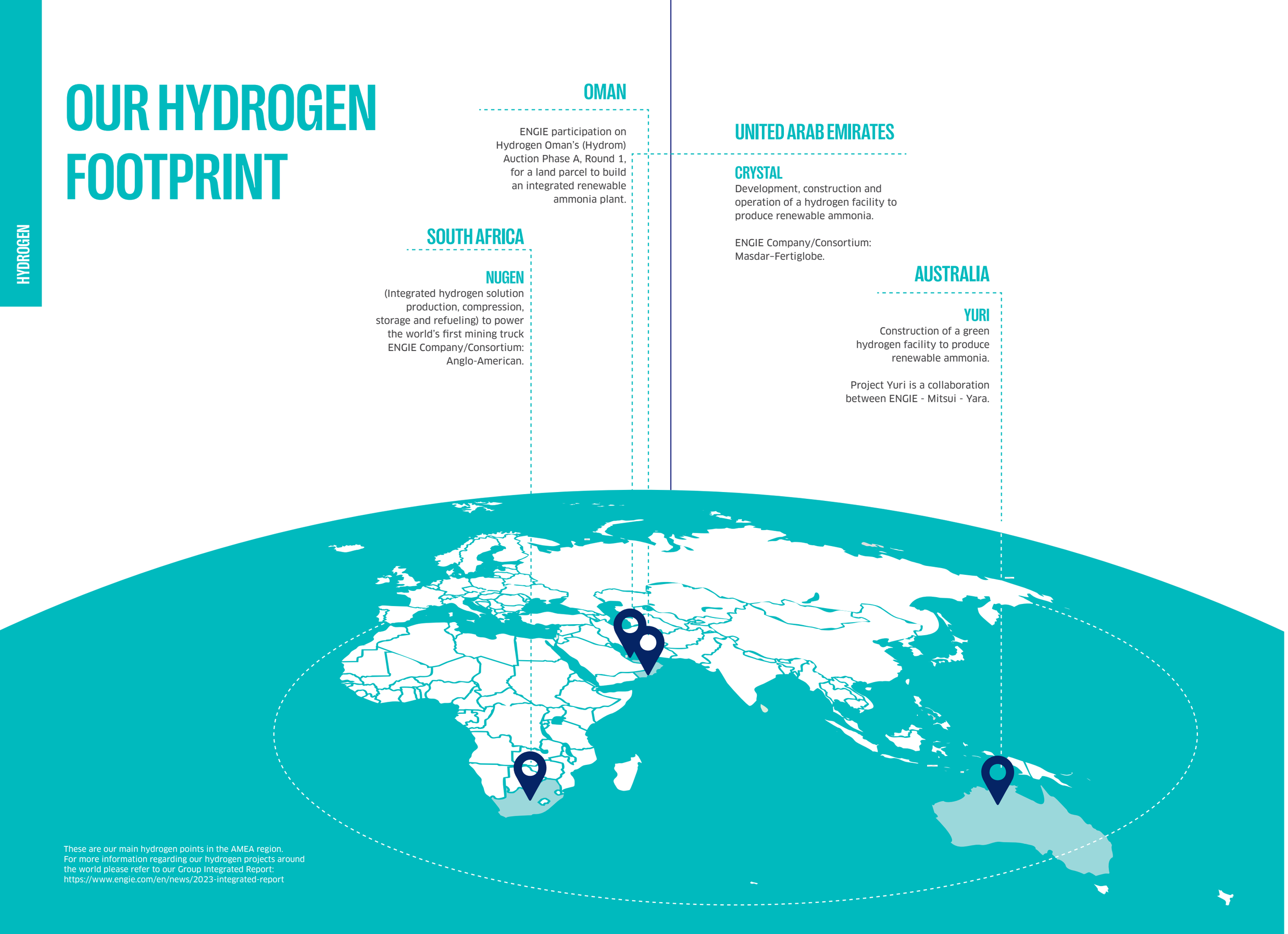
(Integrated hydrogen solution production, compression, storage and refueling) to power the world's first mining truck
ENGIE Company/Consortium: Anglo-American.

## AUSTRALIA

### YURI

Construction of a green hydrogen facility to produce renewable ammonia.

Project Yuri is a collaboration between ENGIE - Mitsui - Yara.



These are our main hydrogen points in the AMEA region.
For more information regarding our hydrogen projects around the world please refer to our Group Integrated Report:
https://www.engie.com/en/news/2023-integrated-report

# OUR SIGNIFICANT STRIDES IN THE DEVELOPMENT OF RENEWABLE HYDROGEN

## YURI PROJECT: PAVING THE WAY FOR INDUSTRY DECARBONIZATION AND THE DEVELOPMENT OF A WORLDWIDE HYDROGEN MARKET

Scheduled for completion in 2024, the first phase of the Yuri project, one of the world's first industrial-scale renewable hydrogen projects, is expected to produce up to 640 tons of renewable hydrogen per year as a zero-carbon feedstock for Yara's ammonia production facility near Karratha in Australia.

### THE PROJECT INTENDS TO LEAD TO:

**6,592 tons**
of $CO_2$ per year saved

**7,296,000 liters**
of water use per year

YUri Project

Anglo American nuGen Truck

## NUGEN™ (RHYNO) ZERO EMISSION HAULAGE SOLUTION ("ZEHS") PROJECT IN SOUTH AFRICA

Anglo American, in partnership with ENGIE and First Mode, has successfully pioneered the development of the mining industry's inaugural hydrogen-powered haul truck. This groundbreaking endeavor not only propels Anglo American towards greater carbon neutrality but also highlights the immense potential of green hydrogen in reducing emissions within energy-intensive sectors such as mining.

The momentous occasion took place on May 6, 2022, when the nuGen™ Zero Emission Haulage Solution (ZEHS) was officially unveiled at South Africa's Mogalakwena Platinum mine. ENGIE played a crucial role in designing the hydrogen generation, supply, and distribution infrastructure that effectively powers the world's largest hydrogen-fueled mining haul truck. With an impressive loading capacity of 290 tons, this innovation sets a significant precedent as it demonstrates a viable technological and energy solution for decarbonizing transportation within the mining industry.

Looking ahead, the project's trajectory involves expanding the implementation and industrialization of this ground-breaking solution. By scaling up its deployment, Anglo American and its partners aim to create a lasting impact on the mining sector's environmental footprint while ushering in a new era of sustainable practices.

### KEY FACTS

**3.5 MW (700 NM3/h)**
Electrolysis capacity

**1.5 ton of $H_2$ per day**
Production capacity of the plant is 1.5 ton per day of $H_2$

**350 bar**
of $H_2$ delivery pressure

**3,000 liters**
of diesel saved per day

# AWARDS AND RECOGNITIONS

2022 Hydrogen TCP: NuGen (ZEHS) Project was the winner of the award of excellence in the first edition, an award that recognizes excellence and innovation in hydrogen technology projects from around the world.

Investing in Green Hydrogen 2022 Forum: ENGIE Lab Singapore, ENGIE's research center for the APAC region, has won the Impact Investor Award of the Year 2022 for its commitment to facilitating the deployment of competitive and clean hydrogen technologies. The ENGIE Lab Singapore team has been instrumental in accelerating the transition towards carbon neutrality.


Battery energy storage systems

# BATTERY ENERGY STORAGE SYSTEMS

Innovative technology that has the potential to revolutionize the way we store and distribute energy

As the world moves towards a cleaner energy future with increased adoption of renewables, the need for energy storage solutions is becoming increasingly imperative. Battery storage is emerging as a crucial technology with its ability to address challenges associated with renewable penetration, thermal phase-out, increased power demand and behind-the-meter batteries for auto consumption. The global market for battery energy storage is expected to reach a cumulated total of 508 GW/1,432 GWh at the end of 2030, 12-fold of what was commissioned as of the end of 2022.

## 2022 HIGHLIGHTS

14 years of research and development in storage system and micro-grid projects across 23 countries

25% stake in connected energy, specializing in the reuse of second-life batteries from electric vehicles

+100 MWh capacity in battery storage in commissioned projects

## WE ARE A GLOBAL REFERENCE IN BATTERY STORAGE WITH NUMEROUS ONGOING PROJECTS AND EXTENSIVE EXPERTISE IN:

- Research and development
- Engineering and consultancy on storage technologies
- Design, production, installation, operation and maintenance of a wide array of storage-related systems and technologies



## KEY FIGURES

**30% faster**

According to the International Energy Agency (IEA) 2022 report on renewables, the deployment of renewables could be even 30% faster than expected, due to the energy crisis. As a Group, we are well positioned for renewables capacity deployments:

| 80 GW | 6 GW | 1% |
|---|---|---|
| total capacity by 2030 (34 GW in 2021) | annual deployment from 2026-2030 (3 GW in 2021) | of total global renewable capacity additions that ENGIE will represent by 2030 |

Although we are in the early stages, the combination of renewables and storage systems will allow a wider range of energy services, improving the reliability and stability of the power grid.

# OUR SIGNIFICANT PROGRESS IN THE FIELD OF ENERGY STORAGE

Hazelwood Bess

## HAZELWOOD BESS, OUR LARGEST ENERGY STORAGE PROJECT IN AUSTRALIA

The Hazelwood Battery Energy Storage System (HBESS) project on the site of a former Hazelwood coal-fired power plant has completed the Battery and High Voltage Connection activities, whilst the administration and warehouse are due to be completed by the end of May 2023. Commissioning activities for the 150 MW / 150 MWh system have commenced, with full operational capability anticipated by June 2023.

The Hazelwood Battery Energy Storage System can store the equivalent of an hour of energy generation from the rooftop solar systems of 30,000 homes and will play a critical role in increasing renewable energy capacity in the state of Victoria while delivering further grid stability.

Symbolizing the transition of our flexible generation portfolio towards cleaner solutions, this project aims to support the further development of intermittent renewables in the state of Victoria in Australia.

## KEY FACTS

- Capacity to store the equivalent of 1 hour of energy production from the rooftop solar systems of 30,000 Victoria homes. Increasing the state's energy capacity and the stability of the grid
- Over 75,000 labor and management hours without a Lost Time Injury
- Local ENGIE teams showcased an ability to work in a complex and ever-changing environment with shared goals and achievements supported by a strong health and safety focus



## ONGOING PROGRESS

Completed the Australian Energy Market Operator (AEMO) registration

**220 kv**

**Constructed** a dedicated 220 kV transmission line and connected to nearby grid infrastructure

**342**

**Fully installed** and connected 342 battery cubes (a total of 2,990 lithium-ion phosphate batteries), 57 inverters and 57 core transformers

### UPCOMING MAJOR PROJECT MILESTONES:

**150 MW**

**Commissioning** and grid/hold point testing of the full 150 MW (completion expected in 2023)

**Energization and commissioning** of 50 MW initially and the remaining of 100 MW battery cubes completed in 2022

### OUR PATHWAY TO COMMISSIONING THE ASSET:

We expect hold point testing with the Australian Energy Market Operator (AEMO) to be completed early 2023, dependent on testing, reporting and completion of AEMO review timeframes.

# ENERGY SOLUTIONS

## Creating smart, sustainable and energy-efficient solutions for communities

As countries transition towards more diversified energy sources, our integrated energy solutions portfolio in GCC and Southeast Asia helps our customers decarbonize their infrastructures, improve performance and energy efficiency of buildings and industries, thus transforming cities and territories into smarter, greener and cleaner places.

## 2022 HIGHLIGHTS

**89,152 $tCO_2$ of carbon emissions avoided**

**137,641,325 kWh total energy savings from our projects across the AMEA**

## OUR EXPERTISE

- Public lighting and low carbon cities
- On site PV and storage
- Energy performance services
- Onsite utilities
- Integrated service solutions
- Smart technology
- District cooling services

## IN 2022 OUR PROJECTS ACHIEVED

### GCC

**59,259 $tCO_2$**

of carbon emissions avoided from existing operational projects

**97,582,025 kWh**

of saved energy

### SOUTHEAST ASIA

**29,893 $tCO_2$**

avoided from over 31 operational projects

**40,059,300 kWh**

of saved energy

"By investing in low-carbon distributed infrastructure, we are not only paving the way for sustainable growth, but also accelerating the decarbonization of industries. The shift towards environmentally friendly practices is essential for creating a brighter future for both our planet and economy."

**- PIERRE CHEYRON,**
MANAGING DIRECTOR ENERGY SOLUTIONS AMEA

# ENERGY SOLUTIONS SUPPORTING OUR CLIENT'S DECARBONIZATION JOURNEY

We actively assist our clients in achieving their decarbonization goals by offering tailored solutions and expertize that help support their transition to cleaner energy alternatives as well as facilitate their sustainable and environmentally responsible growth.

## ENGIE WAS AWARDED THE "NOJOOM" ROAD LIGHTING PROJECT IN ABU DHABI, UAE

ENGIE and EDF (Eléctricité de France) as part of a French consortium, formed together a 50-50 joint venture to deliver the Phase 2 of the Road Lighting LED public-private partnership (PPP) project, entitled "Nojoom" ("stars" in Arabic). The project, which is part of the wider Abu Dhabi Road Lighting Program, includes the finance, supply, installation, operation and maintenance of 133,473 LED energy-efficient luminaires in the Emirate of Abu Dhabi.

**It is expected to lead to significant electricity savings of almost 2,400 million kWh, equivalent to a reduction of approximately 74% in power consumption, over the 12-year concession period.**

## ENGIE SOLUTIONS SUPPORTS UAE'S DECARBONIZATION GOALS

The UAE Ministry of Energy and Infrastructure (MoEI) and ENGIE Solutions have signed a Memorandum of Understanding (MoU) to jointly develop technical cooperation in generating clean energy projects on MoEI's assets and exploring other energy related CSR initiatives, to back the country's decarbonization targets.



## ENGIE COFELY MANNAI (ECM) PARTICIPATES IN THE LARGEST E-MOBILITY INFRASTRUCTURE PROJECT FOR ELECTRIC CARS IN QATAR

ENGIE Cofely Mannai (ECM), an affiliate of ENGIE, has been awarded a contract with Qatar General Electricity and Water Corporation (KAHRAMAA), represented in the National Program for Conservation and Energy Efficiency "Tarsheed" to supply and install 100 electric vehicle chargers in various locations in the state of Qatar.

**As the largest e-mobility infrastructure project for electric cars in the country, the project is expected to reduce carbon dioxide emissions by 10,300 tons per annum considering optimum usage.**

## ENGIE SOLUTIONS SIGNED A LONG-TERM CONTRACT WITH HOLCIM FOR A WASTE HEAT RECOVERY PLANT

The agreement will cover the design, finance, construction and management of operations for a 10 MW Waste Heat Recovery (WHR) system in Fujairah, UAE under a 10-year BOOT (Build Own Operate Transfer) contract.

ENGIE will be implementing the Organic Rankine Cycle (ORC) technology in an "energy as-a-service" model in the cement industry for the first time in the region. The ORC system, based on a closed-loop thermodynamic cycle, will help avoid 29.2 kilotons per year of $CO_2$ – representing a reduction of 28.35% in power-related emissions and a 3.9% reduction in total plant emissions.


Mölnlycke

# PROJECTS IN SOUTHEAST ASIA

## MÖLNLYCKE® ENGIE DRIVE SUSTAINABLE PRACTICES IN THE MANUFACTURING INDUSTRY

ENGIE will be supporting Mölnlycke's, the world leading medical product and solutions company, sustainability journey in Malaysia, namely, to help reduce water and energy consumption for its Kulim plant and other on-going and upcoming projects in the country.

## COMFORTDELGRO AND ENGIE EXPAND ELECTRIC VEHICLE CHARGING NETWORK

ENGIE further strengthens its position in the EV charging field, while boosting Singapore's EV charging infrastructure in support of the national transition to a carbon-neutral economy, through winning a second major tender with ComfortDelGro; one of the world's largest land transport companies with a total fleet size of approximately 34,000 buses, taxis and rental vehicles.

**The project comprises up to 4,509 Alternate Current (AC) charging points at 387 HDB car parks across the country.**



## CLARK INTERNATIONAL AIRPORT EMBARKS ON SUSTAINABILITY WITH ENGIE AND FILINVEST

The Luzon International Premiere Airport Development Corporation has signed a facilities management and energy efficiency performance contract with joint ventures of ENGIE and Filinvest for the comprehensive maintenance of Clark International Airport's new terminal building. With a capacity of up to eight million passengers per year, the new terminal is the country's premier travel gateway.

**Over a 22-year period, energy savings will exceed 41,000 tons of $CO_2$ emissions (equivalent to 1.6 million trees, with an additional 11,230 tons of potential $CO_2$ savings to be derived from systems maintenance).**

## SUNWAY PARTNERS WITH ENGIE TO REDUCE EMISSIONS VIA SUSTAINABLE COOLING SOLUTIONS IN MALAYSIA

ENGIE and Sunway Property, part of Sunway Group, one of Southeast Asia's leading conglomerates, have entered a Build, Own, Operate and Transfer (BOOT) Agreement for a district cooling system destined for Sunway Property's new integrated waterfront lifestyle hub known as Sunway South Quay Commercial Precinct 2.

**This solution is expected to save close to 20% on energy consumption and $CO_2$ emissions for the project's air conditioning needs.**

# AWARDS AND RECOGNITIONS

## ENGIE AMEA HAS WON:

- **ENGIE Infrastructure Technology Solutions** (ENGIE ITS Pte Ltd) won a Trio of awards for the excellence in data centers:
  - The Pinnacle Partner of the Year Award from Schneider Electric Singapore at their Digital Innovation Summit in Singapore.
  - The "Outstanding Black Diamond Partner of the Year" (Southeast Asia) award from Vertiv at their Asia Channel Summit, held in Bangkok, Thailand.
  - The "Outstanding Capability Award" from Huawei during the Huawei Connect 2022 event in Bangkok, Thailand.
- **ENGIE Lab Singapore's team** won the R&D Project of the Year at the 2022 Asian Power Awards for their Renewable Energy Integration Demonstrator – Singapore, REIDS-SPORE project.
- **ENGIE Solutions GCC** was awarded the Best Energy Services Company of the Year at the Sustainability Innovation Awards, 2022.
- **The NADEC solar facility project in Saudi Arabia** won the Power Project of the Year at the MEED | Middle East Economic Digest Projects Awards.

# TABREED: DISTRICT COOLING SOLUTIONS IN THE GCC

Tabreed is a trusted provider of innovative solutions that optimize operational efficiency, reduce energy consumption, minimize carbon emissions and spearhead industry-leading projects. Through our partnership with Tabreed, a prominent district cooling services provider in the UAE and GCC, we are able to achieve these goals and set new benchmarks in the industry.

With ENGIE Solutions and Tabreed, we develop integrated solutions for improved performance and energy efficiency of buildings and industries as well as for the transformation of cities and territories into smarter, greener and cleaner places.

## 2022 HIGHLIGHTS

86 operating plants in 4 countries
2.31 billion kWh reduction in energy consumption in 2022
1.38 million MT $CO_2$ emissions prevented
+13.4% total revenue AED 2.22 billion
1,264,252 RT increase in connected capacity
17,039,729 hours worked without a single Lost Time Incident

**During 2022, we have:**

- Added 34,454 RT of new connections in the UAE
- Added 19,202 RT in Oman
- Added 500 RT in Bahrain
- Acquired Al Mouj DC assets
- Announced Green Financing Framework
- Increased foreign ownership limit to 100%
- Entered into new market of Egypt



Tabreed: District Cooling Solutions in the GCC

**Tabreed invested 7.19% of the company revenue towards climate risk mitigation in 2022, namely:**

- Investment related to additional share subscription in Saudi Tabreed.,
- Construction and Expansion Capex for new connections
- Efficiency Enhancement Capex focused on cost optimization by the installation of variable frequency drives, plant automation and fill replacement

**New milestones in 2022:**

- Signed NDAs with multiple technology providers and companies to explore and test emerging technologies
- Developed an ambitious plan to reduce water consumption by increasing the use of treated sewage effluents in the cooling towers
- Set up an Innovation Committee to oversee the innovation process and the long-term strategy

# OUR PROGRESS IN DELIVERING INNOVATIVE, EFFICIENT DISTRICT COOLING SOLUTIONS THROUGH TABREED

## TABREED'S CONCESSION CAPACITY IN THE SULTANATE OF OMAN IS GROWING

A new acquisition of the district cooling plant that services Al Mouj, the Sultanate's most prestigious new real estate development. It is an exclusive perpetual cooling concession for over 30,000 refrigeration RT, with more than 19,000 RT already connected and operational. This practically doubles Tabreed Oman's concession capacity from 32,000 RT to 62,000 RT and takes Tabreed's tally of owned and contracted district cooling plants in the Sultanate to seven.



## BESPOKE ARTIFICIAL INTELLIGENCE TO DOWNTOWN DUBAI DISTRICT COOLING NETWORK BY TABREED AND ENGIE DIGITAL

In line with our focus to keep on leveraging "Big Data" analysis to provide more process insights and enhancements to the design and operation of our assets, we have extended our partnership with ENGIE Digital, to introduce bespoke Artificial Intelligence to Downtown Dubai District Cooling Network; the largest of its kind anywhere in the world.

## ONGOING PROJECT

Tabreed's Partnership with International Finance Corporation (IFC) aims to accelerate the adoption of innovative cooling technologies and business models, targeting a portfolio of approximately 100,000 refrigeration tons (RT) servicing industrial, commercial and retail developments across India.

The program is expected to run for 15 months where emerging technologies related to the cooling industry will be explored and piloted jointly by the parties.

# ENGIE'S SUBSIDIARIES

As the global landscape undergoes rapid transformations, we are committed to leveraging our extensive range of services, solutions and expertize to become a trusted long-term partner in the energy sector. By actively expanding our network of strong partnerships with regional and national stakeholders in the AMEA region and harnessing the strength of our global ENGIE brands, we aim to support our clients throughout the entire energy value chain.

Through these efforts, we strive to provide our customers and stakeholders with enhanced options and value, ensuring that we remain at the forefront of positive energy advancements.

### ENGINEERING A CARBON-NEUTRAL FUTURE

As one of the world's largest engineering consultancy companies with more than 160 years of experience, Tractebel offers its customers multidisciplinary solutions in energy, water, nuclear and urban.

**tractebel-engie.com/en**

TRACTEBEL ENGIE

## KEY FACTS

- +150 employees
- 60 projects in power generation
- 90 projects in electricity, transmission and distribution
- 100 projects in power system consulting
- 20 projects in infrastructure

## AREAS OF EXPERTISE

Energy | Water | Nuclear and Infrastructure

## BUSINESS HIGHLIGHTS

### WEST COAST SATELLITE DESALINATION PLANTS IN SAUDI ARABIA

The Saline Water Conversion Corporation has assigned Tractebel consultancy engineering services for the supervision of the construction of 8 satellite desalination plants on the west coast of Saudi Arabia for a total installed capacity of 238,000 $m^3$/day.



### UAE GOVERNMENT-FUNDED PROGRAM TO INSTALL AND OPERATE HYBRID WIND AND SOLAR PLANT

Services provided by Tractebel:

- Wind farm planning for the 4 pilot wind farm sites, including execution of topographical and geotechnical studies.
- Preparation of tender documents and support during the tender phase, comprising assistance in bid clarifications, tender evaluation and assistance during contract negotiations.
- Preparation and execution of a wind measurement campaign for a period of minimum 12 months, comprising a LIDAR measurement and 4 wind measurement masts of 100 m height each.
- Support during the extension planning of the wind measurement sites towards commercial scale wind farm sites.

### CONSULTANCY SERVICES FOR DESIGN AND PROJECT MANAGEMENT SERVICES FOR TABREED DISTRICT COOLING PLANT

The Al Dhafra plant will be initially sized for an output of 6,000 RT (21.1 MW) with an eventual capacity of 12,500 RT (44 MW). Services provided by Tractebel, include conceptual and detailed design, procurement support and construction supervision.

## MARKET-LEADING ENGINEERING DESIGN CONSULTANCY SPECIALIZING IN BUILT ENVIRONMENT, DATA CENTERS, ICT AND SUSTAINABILITY

RED

RED Engineering services cover the entire life cycle of any construction project with a broad capability offering, saving our clients time, costs, and effort. RED services range from Mechanical, Electrical and Public Health Engineering to Process Design, Advisory, and Consultancy.
**www.red-eng.com/**

## KEY FACTS

- Over 1,000 commissions completed
- Projects from 300kW IT load to over 480MW IT load
- Awarded globally for low energy and innovative designs
- 20 Accredited Tier Designers, 1 Accredited Tier Specialist, 1 Accredited Tier Professional
- Approx 10 GW of data center space masterplanned across EMEA, APAC & LATAM in 2022
- World's first Uptime Institute Tier III certified modular data center
- Tier IV certified designs outside of the US

## AREAS OF EXPERTISE

MEP Services | ICT | Sustainability | Process Engineering | Health and Safety



### NEOM - NORTH AND SOUTH DATA CENTER PROJECTS

In order to support the wider digital transformation and IT infrastructure requirements for NEOM, RED were engaged to provide full multidisciplinary architectural engineering design services including MEP, Architectural, Civils and Structural engineering for a multi phased state of the art, sustainable data center campus with a total IT capacity of 36 MW with a day 1 phase 12 MW capacity. The first of its kind in KSA. The project was designed in 32 weeks and we continue to support the construction phase of the project which is ongoing. The data center is one of the most energy efficient in the region and has attained LEED Platinum and Uptime Institute Tier III certification.

RED project NEOM

# ENGIE IMPACT

**SUSTAINABILITY CONSULTING**

As the sustainability consulting division of ENGIE, ENGIE Impact partners with corporations, governments and municipalities around the world to address the transformations necessary to reduce their carbon footprint on their Net Zero journey. Through strategic consulting and global reporting and analytics, ENGIE Impact becomes an implementation partner for organizations working towards ambitious sustainability goals.
**www.engieimpact.com**

## KEY SERVICES

- Strategy and Target Development
- Current State Assessment
- Decarbonization Strategy and Roadmap
- Impact and Feasibility Analysis
- Expense and Data Management
- Renewable Energy
- Resource Management
- Sourcing and Supply Management
- Energy Efficiency Program Implementation
- Data Management and Analysis
- Sustainability Reporting

## AREAS OF EXPERTISE

- Carbon offsets
- Climate Resilience
- E- Mobility
- Green Hydrogen
- Renewables
- Resource Optimization
- Sustainability Data
- Value Chain

## BUSINESS HIGHLIGHTS

A few of our most recent achievements in terms of projects assigned:

- We developed **Emirates Steel Arkan's decarbonization strategies,** in terms of analyzing technologies, costs and regulations as well as recommending actionable pathways to produce green steel and green cement.
- We supported **Riyadh Airport** to obtain the level 1 certification in the Airport Carbon Accreditation (ACA), through calculating their carbon footprint while supporting them for the auditor's process and providing team training to reach the next ACA levels.
- For **DP World,** a world leading company active in ports and terminals operation, logistics and marine services, we analyzed all aspects related to green H2, Scope 3 emissions and carbon compensation and delivered the associated long-term vision and short-term roadmaps, in line with their decarbonization strategy.
- We worked with **King Abdulaziz University for Science and Technology** to draft its Climate Action Plan which entailed calculating its carbon emission footprint, combining relevant decarbonization levers to build scenarios with different ambition levels and recommending a preferred pathway for the University to reach its Net Zero target.



# ENGIE GLOBAL ENERGY MANAGEMENT & SALES

ENGIE Global Energy Management & Sales provides energy supply solutions and risk management services to support its clients through their decarbonization journey, while optimizing ENGIE's assets and contributing to value creation.
**gems.engie.com/**

## OUR MISSIONS

- We support clients in the transition towards a carbon neutral economy,
  - by supplying them with increasingly low carbon energy, and
  - by offering them innovative, competitive green solutions,
- We provide best-in-class risk management services tailored to our customers' individual needs
- We connect assets (generation, thermal, renewables) to customers and markets

## AREAS OF EXPERTISE

- **Energy supply & global commodities**
- **Green & low carbon solutions**
- **Risk management & market access**
- **Access management & flexibility services**

## BUSINESS HIGHLIGHTS

**Power Purchase Agreement (PPA) between Charter Hall Group and ENGIE to supply 100% Electricity from Renewable Sources Across the Group's Property Portfolios, over 7 Years.**
The PPA will provide 151GWh of wind and solar power annually to Charter Hall's 152 sites, from ENGIE's Willogoleche Wind Farm, Woolooga Solar Farm and other assets. This is the equivalent of powering about 26,000 average homes with renewable electricity, each year. This PPA will reduce Charter Hall's carbon emissions by 70% when the partnership becomes active in 2024.

**ENGIE and Google Conclude a Corporate PPA Relying on Ocean Winds' Offshore Wind Development.**
ENGIE and Google to undertake a 12-year 100 MW corporate power purchase agreement (CPPA) supporting Moray West offshore wind development. ENGIE will provide Google with more than 5 TWh of green power from the Moray West project, a nearly 900 MW offshore wind farm set to begin generating power from 2025.

**ENGIE Participated in the Largest-Ever Auction of Carbon Credits Held During the Future Investment Initiative.**
- ENGIE GEMS traded a total of 483,100 carbon credits as part of Saudi's Public Investment Fund (PIF) Regional voluntary carbon market during an auction held at the Future Investment Fund (FII). This was the largest single contribution to the 1.4 million carbon credits that were sold in the largest-ever auction of its kind.

Laborelec
RESEARCH & INNOVATION

### RESEARCH AND INNOVATION

ENGIE Laborelec, part of ENGIE Research and Innovation, is a leading center in electrical and power technology. Drawing on the skills of approx. 370 specialized engineers and technicians, the company is active on the entire electricity value chain and backs a large set of customers in the fields of generation, transmission, distribution, storage and final use, with a particular focus upon the energy transition and Net Zero Carbon.
**www.laborelec.com**

## KEY SERVICES

- General Technical Consulting
- Inspection Services
- Condition Assessment and Monitoring
- Testing of New Technologies
- Development of Pilot Projects
- Testing and Analyses, Onsite or in the Lab
- Specialist Engineering and ICT Solutions
- Suitable Engineering Solutions for the Built Environment

## AREAS OF EXPERTISE

- Services to all players in the electricity sector in addition to industry, communities and the public sector.
- Day-to-day operational support of our customers' facilities.
- Upstream assistance for engineering companies, investors and others.
- Global service providers completely independent of equipment manufacturers.
- R&D and research services that provide essential and well-targeted support to customers.

Laborelec

# ENGIE ENERGY ACCESS

### WE DELIVER SOLAR ENERGY ACCESS

ENGIE Energy Access are the leading mini-grid and off-grid, Pay-As-You-Go (PAYGo) solar energy solutions company in Africa. The team strives towards the UN's Sustainable Development Goal 7 (SDG7) of universal energy access by providing clean energy to the remotest parts of Sub-Saharan Africa. ENGIE Energy Access has already transformed more than 9 million lives in 9 countries and aims to impact 20 million by 2025. The team has set the benchmark for off-grid solar in Africa. With the broadest range of clean energy products and services available on the continent, we cover every customer's need, while protecting the environment and accelerating the transition to green energy.
**engie-energyaccess.com**

## OUR SOLUTIONS

- Solar Home Systems
- Mini-grids
- Software

## BUSINESS HIGHLIGHTS

CrossBoundary Energy Access Nigeria (CBEA) and ENGIE Energy Access Nigeria (ENGIE) signed a Finance Agreement to build a $60 million portfolio of a Mini Grids Pipeline that will be constructed over the next 4 years, expected to connect over 150,000 people to electricity in Nigeria through a pipeline of mini grids.

**ENGIE Equatorial Inaugurated the Lolwe Hybrid Solar 600 kWp Mini Grid:**

As the most advanced mini grid on the African continent, this joint project between ENGIE Energy Access and Equatorial Power Ltd, sets new records in terms of value and replicability, connecting over 3,000 households and more than 700 businesses, impacting 15,000 people and providing clean, reliable electricity as well as a range of other services.

## AWARDS AND RECOGNITIONS

**ENGIE Energy Access named Solar Home System Company of the year 2022**
• ENGIE Energy Access has won the AFSIA (Africa Solar Industry Association) Award 2022 for Solar Home System Company of the Year. In less than 2 years, our SHS business integration and MySol rebranding of 9 markets in Sub-Saharan Africa was completed, impacting more than 9 million people.

**ENGIE Energy Access received the "Solar Impulse Efficient Solution" for its Mini-Grids Activities in Africa.**
This distinction from the Solar Impulse Foundation rewards profitable solutions that protect the environment. ENGIE Energy Access remains part of the 1000 solutions challenge; an initiative by the Foundation that selects solutions that meet high sustainability standards. The Foundation aims to encourage the adoption of ambitious environmental targets and fast track their implementation.

**The Project intends** to build $60 million of mini grids in Nigeria and was recognized as one of the groundbreaking projects initiatives in Nigeria's power sector, representing the progress in the African mini grid space as it expands access to energy to a previously grid deficient community.

# RESPONSIBLE GOVERNANCE & OPERATIONS

# OUR CORPORATE GOVERNANCE MODEL

Our corporate business model needs to be resilient and respond to the new challenges linked to the acceleration of energy transition and the adoption of advanced digital solutions. The ENGIE Board of Directors defines our business strategic guidelines and directions. The executive committee implements Group strategy to succeed in the energy challenges of tomorrow. Towards that direction, our current corporate structure at ENGIE AMEA ensures full alignment with the Group's mission, vision and purpose while enabling the Group strategy to cascade down to the different regional contexts as well as ensure its effective and efficient implementation.

## CORPORATE STRUCTURE

**CEO ENGIE**
**CATHERINE MACGREGOR**

| GBU FLEXIBLE GENERATION & RETAIL | GBU RENEWABLES | GBU ENERGY SOLUTIONS | GBU NETWORKS | TRANSFORMATION & GEOGRAPHIES |
|---|---|---|---|---|
| **SEBASTIEN ARBOLA**<br>EXECUTIVE VICE PRESIDENT | **PAULO ALMIRANTE**<br>EXECUTIVE VICE PRESIDENT | **FRANK LACROIX**<br>EXECUTIVE VICE PRESIDENT | **CECILE PREVIEU**<br>EXECUTIVE VICE PRESIDENT | **FRANK DEMAILLE**<br>EXECUTIVE VICE PRESIDENT |
| **GBU FLEXIBLE GENERATION & RETAIL AMEA**<br>**FREDERIC CLAUX**<br>MANAGING DIRECTOR FLEXIBLE GENERATION & RETAIL AMEA & COUNTRY MANAGER GCC & PAKISTAN | **GBU RENEWABLES AMEA**<br>**MOHAMED HOOSEN**<br>MANAGING DIRECTOR RENEWABLES AMEA & COUNTRY MANAGER SOUTH AFRICA | **GBU ENERGY SOLUTIONS AMEA**<br>**PIERRE CHEYRON**<br>MANAGING DIRECTOR ENERGY SOLUTIONS AMEA | **GBU NETWORKS INTERNATIONAL**<br>**ERIC STAB**<br>MANAGING DIRECTOR NETWORKS EUROPE & AMEA | **REGIONAL HUB AMEA**<br>**GEERT BUNKENS**<br>VICE PRESIDENT TRANSFORMATION & GEOGRAPHIES AMEA & VICE PRESIDENT FINANCE AMEA |

Starting 1st of February 2023, Frank Lacroix has replaced Cecile Previeu as Executive Vice President, Energy Solutions. Cecile Previeu has assumed the position of Executive Vice- President at ENGIE Networks. Pierre Cheyron has replaced Anne-Laure De Chammand in the position of Managing Director, in charge of Energy Solutions AMEA in 2022.

At ENGIE AMEA, in honour of our sustainability commitments towards our stakeholders, we develop our corporate governance structures with the view to promote sustainable economic performance, good ethical practices and a culture of transparency equally.




## OUR MANAGEMENT TEAM

Our management team ensures that the Group's strategy is executed effectively in coordination and engagement with all local stakeholders. All business units are supported by the Group's business lines and AMEA regional hub to ensure business development and management of all operational activities, within each country. This is achieved through an assigned and dedicated team in each country respectively. Likewise, the constitution of boards in all ENGIE's AMEA portfolio complies with applicable national laws and requirements and/or articles of association.

**Sustainability Committees**

Sustainability/CSR committees are identified through various business streams. They are all focused on accelerating our sustainability agenda to meet our organizational objectives, whilst supporting country expectations and needs, to ensure a just transition on project implementation.

- **Biodiversity Network**
- **Environmental Network**
- **Water Network**
- **Circular Economy Network**
- **Sustainability Committee**
- **CSR committee**
- **Business committee's and networks**

# OUR APPROACH TO RISK MANAGEMENT

Identifying all potential and imminent risks that could have an impact on our business operations and activities across all geographies, is of utmost importance to our long-term strategic planning. At Group level, we have adopted a framework that allows us to “manage risks to ensure our performance” as well as, be a leader in the energy transition. The framework is in line with our corporate principles as well as consistent with the professional standards, including ISO 31000 and the professional Code of Ethics set out by the Federation of European Risk Management Associations. The key Group risks identified across all our operations include climate change (adaptation and transition), human resources (retention of expertise and attractiveness), health and safety, industrial safety, market risk, supply chain, position of gas and cybersecurity.

We have developed, and operate a **vigilance plan**, designed to identify and prevent human rights abuse, infringements of fundamental freedoms, risks to human health and safety and environmental damage. At ENGIE AMEA, we are guided by initiatives and governance frameworks developed at Group level and we adjust our policies, procedures and actions according to priorities and conditions in all the local markets we operate.

| RISKS | HUMAN RIGHTS | ENVIRONMENTAL AND SOCIETAL CLIMATE RISK | HEALTH AND SAFETY AND SECURITY | SUPPLIERS |
|---|---|---|---|---|
| **IDENTIFIED RISKS AT THE GROUP LEVEL** | **Risks related to:**<br>• Fundamental rights of people working for the Group (employees, temporary workers and subcontractors)<br>• Rights of local communities<br>• Partner and supplier practices | **Risks related to:**<br>• Pollution of the air, water and soils<br>• Waste<br>• Impact of activities on local communities and their social consequences | **Risks related to the:**<br>• Health, safety and security of people working for the Group (employees, temporary workers and subcontractors).<br>Group’s industrial facilities or facilities that the Group maintains and/or operates on behalf of customers (to people who work for the Group or residents) | **Risks related to:**<br>• Certain purchasing categories<br>• Human rights<br>• Health, safety and security<br>• Environmental and societal factors<br>• Energy purchases. |
| **RELATED POLICIES AT GROUP LEVEL** | • The Group’s human rights policy specifies our commitments and provides for regular processes to identify and manage risks<br>• Commercial partners are the subject of ethical due diligence, which explicitly includes human rights | The Group’s CSR policy guides the environmental and social vigilance processes, based on action plans at different levels, to avoid, reduce and, if necessary, offset the impacts of the Group’s activities.<br>It is defined at the level of each GBU, subsidiary and site as well as being implemented through objectives and action plans that are reviewed every year. In addition, before any decision to launch a project, an analysis of the environmental and societal risks is conducted using a set of CSR criteria | • The Group’s health-and-safety-at-work policy and rules provide the basis for fulfilling the duty of vigilance and they apply to all Group employees and subcontractors<br>• Risks related to the operation of industrial facilities are controlled by implementing safety management systems based on the principle of continuous improvement<br>• The Group ensures strong policies related to data management, cybersecurity, property management, physical security, information security and privacy | • The Group Purchasing Charter defines a set of minimum requirements in terms of human rights, health and safety at work, ethics and the environment<br>• For energy purchases, risks relating to the Group’s energy supply have been identified as a specific vigilance issue for the Group. Action plans are defined for any risks identified |
| **ENGIE AMEA LEVEL - KEY INITIATIVES** | | | | |
| **POLICIES AND ACTIONS AT AMEA LEVEL HARMONIZED PROCESSES INCLUDE:**<br>• Vigilance monitoring committee<br>• Due diligence procedures<br>• Whistleblowing and collection of alerts mechanism<br>• Monitoring of the plan’s deployment within the entities<br>• Management of controversies<br>• Training | **Our integrity and compliance framework includes:**<br>• Anti - Bribery and Anti-Corruption<br>• Gifts and Hospitality My Gift & Hospitality Register<br>• Conflict-of-Interest<br>• Whistleblowing Policy A local grievance mechanism encourages the reporting of any incidents openly or via anonymous channels<br>• Harassment Prevention Complaint’s procedure and a monitoring review mechanism in full confidentiality. Common Ethics tool “My Ethics Incident”<br>• Human Rights review across the Value Chain<br>• A robust due diligence process across our activities and geographies<br>• Ensure our suppliers and contractors abide by and adhere to our policies.<br>• Promoting a robust system of control, through assessments, audits and trainings | • Implementation of ISO 14001 certification process<br>• Robust application and compliance with local country requirements and implementation of best practices related to the Environmental Social Impact Assessment (ESIA)<br>• Our trainings are designed with the view to facilitate the integration of environmental and societal dimensions into our decision-making processes<br>• Climate risks are established and managed through our TCFD approach. TCFD risks are analyzed extensively in the environmental chapter<br>• Review risks during project development through our 9 point CSR checklist | • “ENGIE One Safety” transformation plan aims to eradicate serious and fatal accidents<br>• Onsite HSE teams ensure health and safety risks, opportunities and mitigation measures are applied. We continue to maintain our certifications of ISO 45001 and 14001 at the majority of our operational assets and activities<br>• Managerial Safety Visits demonstrate leadership commitments<br>**Policies with the aim to safeguarding security:**<br>• Data Protection and Privacy<br>• Physical Security<br>• Cybersecurity<br>• All security policies are applied through our IT and Digital platforms<br>• Our security policies addressing Infrastructure and people are managed through security teams<br>• Specific training for managers to promote safety behavior of employees and subcontractors | • All risks are proactively identified through our regional and country procurement strategies<br>• Our regional procurement teams ensure robust delivery through effective reporting and early identification of potential risks, extending to Financial, Supplier Management, Supply and Technical/ technology related risks<br>• Our due diligence process is implemented across our activities and geographies for every project and commercial partners we engage with (audits, EcoVadis ratings, etc.)<br>• Specific supplier qualification criteria<br>• We measure the carbon emissions of suppliers, their performance and evaluate their plans of action |

## STRENGTHENING SECURITY

Safeguarding and strengthening the security of our sites, operations, assets as well as our people from any potential threat, attack or exposed risk is a major priority. To promote security across the organization, we have set up a robust framework of subsequent policies such as data protection and privacy, physical security and cybersecurity, while we strive to promote a culture of security through awareness raising, training and capacity building activities targeting all employees and relevant departments.

## DATA PROTECTION AND PRIVACY

We are committed to safeguarding the data and privacy of all our employees or third parties globally, as reflected in the Group's Personal Data Protection Policy. Accordingly, we adhere to any applicable data privacy laws and regulations wherever we do business.

## SECURITY: PEOPLE AND INFRASTRUCTURE

This policy is dedicated to the protection of ENGIE's individuals and assets against malicious acts to constantly make our operations and investments safe and secure under all circumstances. It defines the rules that the Group has set for itself in terms of organization and missions in the fields of security and business intelligence.

## CYBERSECURITY

Being recognized as a priority risk to our business, cybersecurity is regularly monitored closely at executive committee and board levels. Cybersecurity is everyone's responsibility and is an integral part of our company culture. To mitigate the risks of cyber-attacks, we:

- Undertake various activities such as self-assessments, audits, adhoc penetration testing as well as regular scans
- Monitor and track progress by utilizing numerous dashboards and KPIs
- Involve our people through the organization awareness raising sessions, inductions and local or global training, including targeted communications, phishing attack simulations and dedicated activities and events (Cybermonth, phishing awareness week, safer internet day) throughout the year.

At ENGIE AMEA, each regional hub and country appoints a Chief Information Security Officer (CISO), in charge of cybersecurity.
Our strategy in this respect has been developed around 3 main subjects:

- Ensure a secure and reliable Information Technology
- Shift the cybersecurity focus from Information Technology to business (tools, people and culture)
- Refocus on industrial cybersecurity

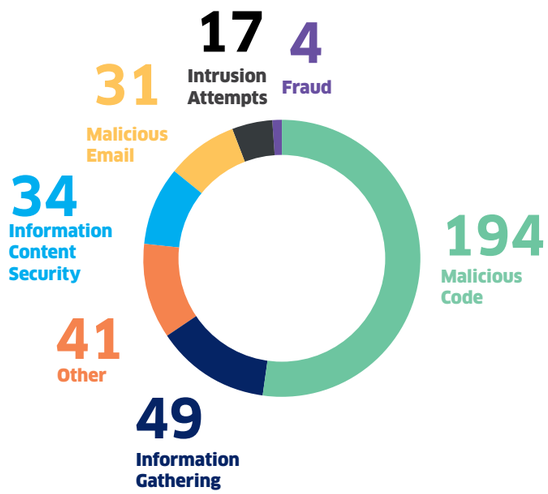
The new approach for cybersecurity at Group level will be reflecting the entire ENGIE organization and will include 14 new principles which must be applied by everyone and enforced by all managers.

In 2022, there was only 1 incident that affected one of our entities, without having an impact upon the site or the production. However, we have received a lot of alerts of failed cyber-attacks or attempts.



## CYBERSECURITY

The graph below shows all the different security tickets that have been created during this reporting period when a threat was detected but was successfully blocked.




INCIDENT CATEGORY

- Malicious Code
- Information Gathering
- Other
- Information Content Security
- Malicious Email
- Intrusion Attempts
- Fraud

Awareness raising and capacity building for tackling cybersecurity within the organization is very important for us. During 2022, we included the topic of cybersecurity in our training offerings.

**3,842**

**Employees within AMEA completed the CyberSecurity training (ULearn users)**

# OUR GOVERNANCE APPROACH: ETHICS AND COMPLIANCE TAKING CENTER STAGE

### RESPONSIBLE BUSINESS OPERATIONS

We operate within the framework of a well-defined set of principles that guide our corporate behavior and conduct, underpinned by a strong ethical culture to ensure a rigorous and comprehensive compliance architecture.

### OUR COMPLIANCE FRAMEWORK

In alignment with the Group's highest ethical standards and the principle of "behaving honestly and promoting a culture of integrity" that characterizes our organization, we have developed an integrity reference system that encompasses all policies and procedures dedicated to compliance and ethical issues such as the prevention of fraud, corruption and influence peddling, etc. This is supported by a dedicated Ethics and Compliance department which is responsible for managing the necessary compliance controls.

Our Integrity and Compliance Framework include the following fundamental policies:

## INTEGRITY AND COMPLIANCE FRAMEWORK - POLICIES

### ANTI - BRIBERY AND ANTI-CORRUPTION

It provides guidance on how to prevent, detect and address bribery and corruption efficiently.

### GIFTS AND HOSPITALITY

It outlines the general principles and the framework in respect gifts and hospitality, technical and study travel, relations with public authorities and invitations to events with the view to prevent any type of corruption, conflict of interests or influence peddling.

### CONFLICT-OF-INTEREST

It guides employees to recognize and manage any potential or actual conflict of interest that they may experience, including practical examples of specific situations and directions on how to manage the process and trace it.

### WHISTLEBLOWING

It includes a local grievance mechanism in place that encourages reporting of any incidents openly or via anonymous channels, addressing all unethical actions promptly.

### HARASSMENT PREVENTION

It ensures that none of our employees is subjected to any form of harassment. It focuses on preventing harassment in the workplace.

### HUMAN RIGHTS

Violations or incidents are proactively identified and addressed. Our suppliers and contractors can also raise concerns through ENGIE whistleblowing systems or other communication channels.



# SUSTAINABLE SUPPLY CHAIN AND PROCUREMENT

We are aware of the impact our supply chains have on our business operations and also to what extent our purchasing and supply chain management practices contribute to risk reduction. Therefore, with the view to achieving our just transition vision at the Group level, we have developed and now operate a rigorous supplier management system as part of our general vigilance plan.

All our suppliers must comply with our ethics and CSR requirements:

- Respect the right to work and human rights
- Offer equitable and decent compensation
- Provide a safe working environment

Guided by the Group's policy framework in this respect, we have incorporated social and environmental requirements in all our purchasing and procurement policies, including a CSR appraisal. We continue to remain vigilant and work closely with all our partners and suppliers towards a sustainable development direction.

# THE ECOVADIS PLATFORM

The Ecovadis Platform helps us to reduce risk during both the onboarding and evaluation phase of each new supplier, through the application of 21 sustainability criteria across 4 themes (environment, labor, human rights, ethics and sustainable procurement). We also invite key stakeholders and major suppliers to participate in different training and awareness sessions through this platform to create awareness and improve sustainability disclosures and reporting.

**We ensure our suppliers' commitment to carbon neutrality is aligned with our procurement target 2030: 100% of our preferred suppliers to be SBT certified by 2030.**

## DURING THIS REPORTING PERIOD:

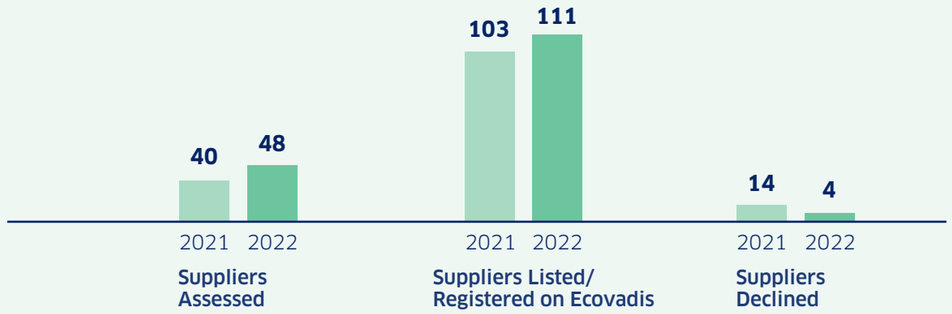
**111**
suppliers registered on the EcoVadis platform.

**48**
total suppliers are listed on the EcoVadis platform.

**43%**
of suppliers assessed on EcoVadis out of 111 updated list of AMEA major suppliers



## SUPPLY CHAIN




## LOCAL SUPPLIERS

Percentage of the procurement spend

| | | | |
|---|---|---|---|
| **75%** | **95%** | **43%** | **64%** |
| UAE* | KSA* | Oman* | Bahrain* |
| **98%** | **55%** | **97%** | **94%** |
| Australia** | India** | SEA** | South Africa** |

* Percentage of the procurement spend in the country. Local suppliers are defined as in-country in the perimeter of the scope of GCC region being UAE, Qatar KSA Kuwait India and Pakistan.
** Percentage of the procurement spend sourced locally (in-country). Local suppliers are defined as in-country.
Percentage of the procurement budget used for significant locations of operation that is spent on suppliers local to that operation (such as percentage of products and services purchased locally).

# THE BEEWE PLATFORM PROJECT

BeeWe Platform is the first collaborative marketplace platform dedicated to the energy sector and a space for experts to exchange knowledge. It has helped us to reduce financial and operational risk by optimizing inventory management at each of our operational assets (plants) while promoting circularity. It has allowed the pooling and optimization of unused stocks of spare parts within our entities.

**BeeWe Platform exceeds 100,000 references from 64 plants across the world and is available to all our operational staff.**

# HOW WE CONTRIBUTE TO THE SDGS

We work towards our responsible performance guided by our policies, strong governance and clear strategy.  This ensures concrete actions plans are adopted regionally, within our countries and assets to efficiently contribute to the achievements of our SDG's


## OUR KEY CONTRIBUTIONS INCLUDE:

- **The development and continuous strengthening** of robust corporate governance structures and policies
- **The incorporation of social and environmental criteria** into our purchasing policy
- **Our public-private partnerships support** the transition towards a climate neutral economy



# ENVIRONMENT

## OUR RESPONSIBILITY, OUR LEGACY

## KEY HIGHLIGHTS

- Net Zero by 2045
- €17.65 billion raised through Green Bonds since 2014
- 137,641+ MWh of energy saved through operational projects in the AMEA region
- 1,300 MIGD of clean water to ensure access for millions in a water-stressed region
- 150,000 mangrove seeds planted by 2022
- 4,305 trees planted in 2022 in partnership

# OUR APPROACH

As we navigate the challenges of the 21st century, it has become increasingly clear that our planet's health is a critical issue that demands urgent attention. At the forefront of this effort, is our commitment to preserve the environment for future generations. At ENGIE, we act proactively to accelerate the transition towards a carbon-neutral economy, through advanced environmental solutions. Recognizing the escalating risks of climate change, environmental degradation, and natural resource depletion, we are strengthening our leadership in energy and climate transition. We are committed not only to enhancing our own performance but also to aiding our partners and clients in establishing ambitious environmental targets, thus supporting them in achieving their climate objectives. In this report, we aim to highlight our progress towards this goal and outline our plans for a more sustainable future.

# OUR GLOBAL STRATEGY TO NET ZERO

At the Group level, we have set an ambitious target to reach Net Zero Carbon by 2045, following a "well below 2°C" trajectory of the Paris Agreement. Our goal refers to emissions throughout our entire value chain (scope 1, 2 and 3) and the reduction of direct and indirect greenhouse gases by at least 90% compared to 2017.

The foundation of our decarbonization strategy is based upon the following 3 pillars:

## ENGIE'S NET ZERO STRATEGY

**Reduce GHG**
Reduce the direct and indirect GHG emissions from ENGIE's activities by at least 90% compared to 2017
Across scopes 1,2 and 3.

-

**GHG Sequestration**
Increase our efforts on carbon sinks to neutralize the residual emissions that are hard to abate.

## CUSTOMER DECARBONIZATION

**Reducing customers' GHG**
emissions through our products and services



Cascading our global commitments locally, we have set milestones over the Group's entire Net Zero trajectory (2025, 2030, 2045) and continue to work towards allocating them to each global business line at the local level.

### SCIENCE BASED TARGETS INITIATIVE (SBTI) CERTIFIED

ENGIE has committed to reducing the carbon intensity related to energy generation and consumption (scope 1 and 2) that goes beyond the SBTi requirements with a commitment of -66% over the period from 2017-2030 instead of the -55% required by the SBTi. In February 2023, ENGIE received its well below 2 degree trajectory certification.

Projections for the use of gas-fired thermal Power Plants do not currently allow ENGIE to commit to a trajectory of 1.5°C, which would require a 78% reduction in carbon intensity over the same period. Such a reduction could not be achieved without the disposal of assets. However, this would be difficult due to current contractual obligations with clients and shareholders. For instance, the potential closure of thermal assets would jeopardize the security of the electrical system to which they are connected.

At this stage, ENGIE AMEA has an extensive range of thermal operations that play a crucial role in facilitating the energy transition of the region. We maintain a steadfast commitment to collaborating closely with our stakeholders in order to effectively reduce the carbon footprint of these operations. To achieve this, we are leveraging various technological capabilities like hydrogen, CCUS (carbon capture, utilization, and storage), and exploring other potential renewable gases. Although we acknowledge that these thermal operations currently contribute to the electrical system security of the countries in which we operate, we are actively working alongside our partners and shareholders to identify and implement the necessary solutions that will enable the decarbonization of our power assets.

## ACHIEVE OUR NET ZERO TARGET BY 2045

Our commitment to new targets for 2030, led the Group to set 2 additional targets by 2030, namely:

**<110 $gCO_2eq$**

The carbon intensity for energy production (Scope 1) and energy consumption (Scope 2) must be lower than 110 $gCO_2eq$. per kWh

**<153 $gCO_2eq$**

The carbon intensity of energy sales produced (Scopes 1 and 3) and purchased (Scope 3) must be lower than 153 $gCO_2eq$. per kWh

**NET ZERO BY 2045**

**across all scopes following a well bellow 2°C trajectory**
**CERTIFIED by SBTi**

# TACKLING CLIMATE RISKS

The identification of climate change risk stands as a paramount priority and undergoes annual review by the Board of Directors Committee on Ethics, the Environment and Sustainable Development (EESDC). At ENGIE AMEA, we act in alignment with the Task Force on Climate-Related Financial Disclosures (TCFD) global framework categorization of climate-related risks and opportunities to identify, monitor and implement the best global business practices within our sector and actively take measures with regards to climate mitigation and adaptation. The impacts of climate change are identified and anticipated across our entire supply chain and are also factored into supplier default risk.

## RESPONDING TO CLIMATE RISKS

**Governance and Strategy:**
**The Group has established a solid risk governance structure to enable action at the highest level. Our strategy to decarbonize our value chain is based on 3 pillars (reduce, avoid and remove) in line with the methodological framework of the Net Zero Initiative.**

### PHYSICAL RISKS

#### Physical Risks Identified include

- Temperature increase
- Heatwaves
- Lack of rainfall
- Floods
- Extreme wind events

#### How Physical Risks Affect us

- Changes to the production profile of installations
- Production losses and damage to assets and activities
- Reduction of insurance coverage and higher premiums
- Occupational health and safety risks
- Risks incurred via supply chains
- Resilience of territories and their energy systems

#### Actions Taken

**Risk management, metrics and targets**

- Our set target is to achieve Net Zero Carbon by 2045 and to prevent the emission of 45 Mt of $CO_2$ by our customers by 2030
- We analyze the exposure of our operations with meteorological experts on data and climate scenarios (Including IPCC RCP8.5 scenario)
- Through climate modelling and by combining sensitivity and exposure metrics we determine the vulnerability of operations between 2030-2050
- We invest in environmental adaptation plans for all assets and aim to achieve the Group's targets of 80% by 2025 and 100% by 2030
- Almost all assets/ activities are ISO 14001 certified taking into account environmental impacts and mitigation plans
- An environmental manager is assigned to work closely with each asset to ensure climate risks are identified and control measures are applied
- Health and Safety measures cover climate potential risks and impacts

**Environmental risks are identified and reviewed across the supply chain.**



### TRANSITION RISKS

#### Transition Risks Identified include

- Political and regulatory risks
- Market and technology risks
- Reputational, legal and financial risks

#### How Transition Risks Affect us:

- New and ongoing developments in political and regulatory levels at the regional and country levels linked to policy actions constraining climate change, litigations or legal risks from failure to mitigate impacts of climate change
- Risks related to socio-economic development
- Reputational Risk associated with Brand and stakeholder perceptions
- New technological improvements and advancements disrupt and ultimately displace old systems
- Market Trends and shifts towards energy savings and carbon-neutral business models
- Supply Chain risks and resiliency to ensure robust delivery times, costs and GHG reductions

#### Actions Taken

**Risk management, and metrics and targets**

- In 2021, we refocused and realigned our priorities to seize opportunities in buoyant energy markets and will be present in fewer than 30 countries by 2023, compared to 70 in 2018.
- As a Group, we are committed to exit coal by 2027.
- We work on a carbon trajectory with the SBTi and the Assessing Low Carbon Transition (ACT) initiative. We also collaborate with the Net Zero initiative and apply the ISO 14068 standards.
- We are setting objectives along the entire emissions chain (scopes 1,2 and 3) to include suppliers and work practices to ensure a proactive approach to legal and financial risks.
- We collaborate with the Net Zero Initiative, which offers a common language to all organizations committed to global Net Zero emissions.
- We map and align country climate policies to support energy transitions.
- We assist our clients in achieving a carbon-neutral business model in line with the global climate agendas through new products and services.
- We increase awareness among all stakeholders to promote advisory and to ensure decarbonized solutions.
- We actively engage in new technologies that ensure climate adaptation actions as well as support client and partner needs and national climate goals (renewable technology and gases, battery energy storage systems and desalination).
- We review all new investment's decisions ensuring a complete assessment (including GHG) is carried out.
- Our strong procurement charter addresses ENGIEs' commitment and expectations on Human rights, health and safety, ethics and Environment (GHG emissions).
- We give priority to SBT-certified suppliers.
- To manage our supply chain risks, we analyze local supply chain risks, knowledge of the markets and relevant opportunities by category of purchases.
- We promote awareness through our climate and biodiversity Fresk programs.

# SUSTAINABLE FINANCING

In line with our purpose, we rely on green finance to fund our activities sustainably and responsibly while maximizing financial value creation for our shareholders.

### GREEN BONDS

Recognized as being essential tools for facilitating the energy transition, Green Bonds are issued following the "Green Bond Framework" to which we are committed as a company.

### PROMOTING SUSTAINABLE AND RESPONSIBLE FINANCING

In 2022, a new Green Bond was issued, for a total amount of €650 million, with the view to support its development plan in line with its purpose, particularly in renewable energies and energy efficiency.

## OUR GREEN FINANCING FRAMEWORK

**Our approach to Green Bonds meets the terms of a referential framework, namely the "Green Financing Framework", in line with the International Capital Market Association principles on Green Bonds. The principles are as follows:**

- **The use of the proceeds**
- **Existing processes to evaluate and select Green Eligible Projects**
- **The management of the proceeds**
- **Reporting**

For more information on our Green Bond Framework and Green Financing Framework: www.engie.com/en/finance/credit/green-finance

The funds raised are allocated to projects supporting the transition to a low-carbon economy directly linked to ENGIE's strategy on "Green Eligible Projects". Projects must fall into a pre-defined category and meet specific technical criteria.

## PROJECTS AND ELIGIBILITY CRITERIA

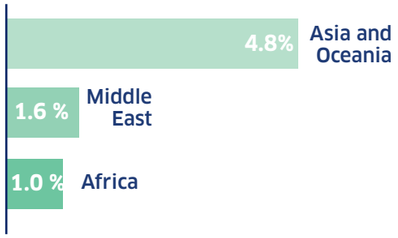
The categories of projects covered by the Green Financing Framework are:

- Renewable energy production (hydropower, geothermal energy, wind, solar, bioenergy, low-carbon hydrogen, marine energy)
- Energy storage (electricity storage by pumped storage and batteries)
- Electricity transmission and distribution infrastructure
- Energy efficiency (including district heating network and cooling
- Carbon capture and storage
- Green buildings; clean transportation (including electric charging stations)
- Sustainable management of living natural resources and land use

## KEY FACTS

- **In 2022, ENGIE issued a single Green Bond of €650 million. This and previous issues allowed €2.11 billion to be allocated to finance approximately 60 projects in 2022.**
- **On January 7th, 2023, ENGIE issued a €2.75 billion Green Bond bringing the total amount raised in Green Bonds to €17.65 billion since 2014, making us a leader among corporate issuers.**
- **The Group publishes an impact report for each allocation, which provides a calculation of the $CO_2$ emissions avoided or reduced.**
- **Since 2014, over 70% of the bonds issued by the Group are Green Bonds.**

## GREEN BOND OF SEPTEMBER 2022






## SHAPING THE AGENDA OF CLIMATE DISCUSSIONS: ENGIE AT COP 27 IN SHARM EL-SHEIKH, EGYPT, NOVEMBER 2022

**With a sense of urgency to translate words into tangible actions, the Conference of the Parties (COP) convened in Sharm el-Sheikh, Egypt, in November 2022, was regarded as a pivotal event often referred to as the "last chance".**

Being present at this landmark global event has been important for all of us at ENGIE, as we remain committed to being part of the global discussions around tackling climate change.

**Our presence in Egypt reiterates our effort to promote partnerships and accelerate decarbonization for both private and public sector stakeholders, showcasing our commitment to helping not only the private sector but also governments in Asia, the Middle East and Africa to achieve their ambitious Net Zero objectives. During the event, we participated in diverse round table discussions and conferences together with numerous representatives from the private sector, the government, the research community and civil society, as part of this significant platform that enables us to contribute to the transition to a decarbonized sustainable future.**

Climate conferences such as COPs are critical opportunities to unite nations, industries and communities in a shared commitment to addressing the urgent threat of climate change. Let us use these opportunities for collaboration, address and scale innovation to be able to act boldly in pursuit of a sustainable future for all

**- DAXITA RAJCOOMAR**
CHIEF SUSTAINABILITY OFFICER, ENGIE AMEA

**ENGIE stakeholders were actively involved during several panel discussions shaping the agenda and outlook of climate actions during the World Leaders Summit, Finance Day, Science and Youth Day, the Decarbonization and Biodiversity days.**

## TOWARDS COP28 IN THE UAE 2023

**As we prepare for COP28, we will continue to prioritize collaboration, innovation and action through our projects, investments and activities, intending to support the power of technology, finance and policy to drive systemic change as well as create a more resilient, equitable and sustainable future. We will continue to use every opportunity arising to continue to work closely with all our stakeholders to unlock the solutions and innovations to accelerate the energy transition.**
**As a committed organization, we have aligned our objectives and long-term goals to the Paris Agreement. We follow closely all the latest developments and participate actively in the global debate at the national and international levels on how to put forward the global climate change agenda.**

# CLIMATE MITIGATION

Climate mitigation is a critical component of our sustainability efforts, as we recognize the urgent need to address the impacts of climate change.

Through a combination of reducing greenhouse gas emissions, accelerating our renewable strategies and implementing innovative technologies, we are committed to minimizing our carbon footprint and promoting a sustainable future.

## EXPERTISE AND KEY GOALS

**Development and operation of renewable projects**

**Design, build, operate:**
- **Hydroelectricity**
- **Solar**
- **Onshore wind**
- **Offshore wind**
- **Battery storage associated with a renewable asset**

**Related Goals:**
**Achieve a portfolio of 50 GW by 2025 and 80 GW by 2030**

**ENGIE added 3.9 GW of renewable energy in 2022 bringing the total 100% renewable installed capacity to nearly 38 GW at the end of 2022. At ENGIE AMEA we exceed 2.3 GW of renewable capacity in 2022 supporting energy transition through awarded projects and projects in the construction of a total of 1.3 GW.**



# TACKLING CLIMATE CHANGE THROUGH DECARBONIZATION

There is a clear consensus that transforming our business model has allowed us to adapt under challenging operating conditions and enabled us to gain a competitive advantage in the renewable energy sector. Therefore, decarbonization strategies remain at the top of our agenda, both in the medium and the long term.

### OUR REGIONAL DECARBONIZATION PATH

We have developed our regional decarbonization roadmap taking into account the needs of our customers and our stakeholders as well as the capacity and efficiency of our assets by setting specific targets regarding the environmental performance of each business unit as well as the strategies required to support our client's climate actions.

In more detail, during this reporting period, we remain on the following developments:

- Increased our renewable energy infrastructure through our 2022 awarded projects
- Have been awarded new contracts with private and public sector entities to decarbonize their value chain.
- Continued to work with our stakeholders through public/ private partnerships on hydrogen.
- Constructed our battery energy storage systems in Australia, paving the development landscape and scalability of technology in support of the energy transition.
- Conducted regular monitoring and reviewing processes of our GHG emissions to establish well-defined carbon budgets and trajectories, ensuring that the responsibility for managing emissions is decentralized and integrated across the operational networks of our Group.
- Reviewed and developed roadmaps-based vulnerability of sites and decarbonization strategies to ensure our midterm commitments for 2025/2030.

### HOW WE SUPPORT OUR CLIENTS' DECARBONIZATION

In line with our corporate purpose, we are committed to assisting customers reduce or avoid emissions, increasing their energy efficiency capabilities and adopting the most cost-effective and innovative energy solutions for their business. Towards that direction, we utilize our technical expertise, regional knowledge and the ability to provide critical funding through innovative decarbonized tools and technologically advanced solutions.

## IN 2022 OUR PROJECTS' ACHIEVEMENTS

**59,259 $tCO_2$**

Of avoided emissions in the GCC from existing operational projects

**97,582,025 kWh**

Of energy savings in GCC

**29,893 $tCO_2$**

Of avoided emissions from over 31 operational projects in Southeast Asia

**40,059,300 kWh**

Of energy savings in Southeast Asia

# BUSINESS HIGHLIGHTS

### ALDAR LAUNCHES PROJECT TO REDUCE ENERGY CONSUMPTION

Aldar Properties (Aldar) launched a portfolio-wide energy management project to reduce its energy consumption by approximately 20% across 80 assets including hotels, schools, commercial, leisure, retail, and residential buildings.

Based on the completion of the level-III audits by the shortlisted partners, Aldar has awarded five-year Energy Performance Contracts to four ESCOs, including Siemens, Enova, ENGIE (in collaboration with Tabreed), and Johnson Controls (in collaboration with Alliances for Global Sustainability).

Each ESCO will be responsible for a portfolio of buildings. The project aims to reduce carbon emissions to 80,000 tons each year which will enable Aldar to save approximately AED 40 million per year in energy consumption costs.

### ENGIE AND FILINVEST BRING RENEWABLE ENERGY TO THE PHILIPPINES

Filinvest-ENGIE Renewable Energy Enterprise, Inc. (FREE), has signed a memorandum of understanding with Filinvest Land, Inc. (FLI) to explore opportunities in installing renewable energy generation facilities in its newest industrial development Filinvest Innovation Parks at New Clark City and Ciudad de Calamba.



### SHANGRI-LA THE FORT IN MANILA SAVES UP TO 7,700 TONS OF $CO_2$ WITH ENGIE'S ENERGY EFFICIENCY PROGRAM

In 2022 ENGIE signed a 7 year energy efficiency performance agreement with real estate developer Shang Global City Properties, Inc. to optimize their chilled water plants and save up to 1,100 tons of $CO_2$ annually for Shangri-La the Fort, in Manila. Under the agreement, we will finance, design and improve the system, including providing the operations and maintenance, to achieve maximum efficiency, reduce consumption and reduce total carbon emissions by up to 7,700 tons of $CO_2$.

### ROOFTOP SOLAR DEPLOYMENT AT PGIM REAL ESTATE IN SINGAPORE

ENGIE signed a 20-year lease with PGIM Real Estate, a global leader, to deploy a 2.2 MWp Rooftop Solar System. The system installed at the food storage and distribution center located in western Singapore's Jurong industrial area is expected to offset approximately 20,000 tC02eq in carbon emissions over the span of 2 decades.

### ENGIE AND SINGAPORE INSTITUTE OF TECHNOLOGY ANNOUNCE STRATEGIC PARTNERSHIP

ENGIE partners with the Singapore Institute of Technology (SIT), Singapore's first university of applied learning, to jointly develop a district cooling center of excellence in Singapore. The strategic partnership between ENGIE South East Asia, ENGIE Lab Singapore and SIT will create a living lab for applied learning and research in the built environment and energy resilience, contributing to the cultivation of a district cooling ecosystem in Singapore and the broader region. District cooling solutions have the potential to save up to 30% on the energy consumption required to cool Southeast Asia.

# CLIMATE ADAPTATION


## ADAPTATION: PREPARE RESILIENCE BY MOBILIZING ALL EXISTING PROCESSES

To achieve our climate adaptation goals, we have in place a resilience preparation plan that mobilizes and streamlines all existing processes towards that goal under 4 main pillars:

- **Mobilize Research and Development**
- **Revise Strategic Processes**
- **Integrate Adaptation within the Risk Management Process**
- **Integrate the impact of climate change in the management of investments**

We abide by the objective set at Group level, to ensure that 100% of our assets will be covered by a climate adaptation plan by 2030. To achieve this, we are taking every possible action to monitor and disclose our performance.



## OUR CLIMATE ADAPTATION ROADMAP

**Implementation of Environmental Plans for all Industrial Activities**
- 80% of sites by 2025
- 100% of sites by 2030

**Implementation of Ecological Plans for Industrial Sites**
- 50% of sites by 2025
- 100% of sites by 2030

**Reduction of Industrial Water Consumption for all the Group's Industrial Activities**
- 15% in 2025
- 30% in 2030

**Implementation of Societal Plans for Industrial Sites**
- 50% by 2025
- 100% by 2030

ENGIE AMEA is actively involved in prioritizing and developing a roadmap to ensure that each of our activities is aligned with our 2030 objectives. This roadmap takes into consideration our environmental certification (ISO 14001) as well as the unique local characteristics, challenges and opportunities associated with each activity.
We are currently 100% certified on our assets under full equity ownership.

### ENERGY AND EMISSIONS

We are aware that our operations contribute to greenhouse gas emissions. For that reason, we actively monitor our emissions and identify solutions to drive efficiencies that lead to reductions.

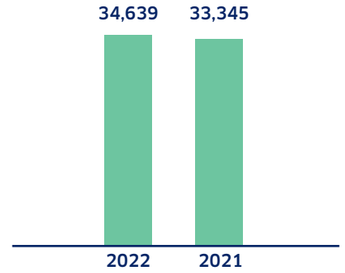
ENGIE AMEA is only able to report on its environmental performance data for its entities under equity (fully controlled and managed by ENGIE). Assets or activities under equity fall in the scope of the majority shareholder and as a committed partner we will continue to provide advisory services regarding reduction measures to improve environmental stewardship. In addition, our GHG emissions reporting is reflective of our scope 1 emissions for activities under full equity and assets not in full equity are considered as scope 3 emissions "Investment category".

Our 2022 AMEA carbon footprint (scope 1 & 3) accounted for 51% of the group's energy production emissions.
- Scope 1 emissions from fully consolidated assets
- Scope 3 "investment category" data for all assets under equity method

As an operating organization, we are fully aware that our services contribute to GHG emissions. Consequently, we are committed to regularly report on our emissions and continuously strive to decarbonize our own operations.

All our carbon footprint data and emissions factors are about the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 2 Energy, the GHG Protocol Corporate Standard and ISO 14064 (completed by ISO 14069).

### TOTAL GHG EMISSIONS FROM ENERGY PRODUCTION ($KTCO_2EQ$)




## ENGIE CARBON FOOTPRINT FROM WAYS OF WORKING

In 2022, we accounted for 13.61Kt$CO_2$ (and 24.14Kt $CO_2$eq in 2021) which reflects the return to "business as usual". These reductions were attributed to the divestments of our energy solutions business late 2021 and hence had no operational impact in 2022. Further decarbonization actions were aligned to optimization of our buildings to ensure energy efficiency, our IT optimizations from infrastructure and reductions in business travel through the implementation of our updated travel policies.

### WATER MANAGEMENT

Improving water management is crucial to us as we strive to achieve ambitious global targets for industrial water consumption, namely 15% in 2025 and 30% in 2030 in all industrial activities. Towards that direction, we identify industrial sites located in areas of high and very high-water stress countries and draw up action plans in consultation with local stakeholders and according to the requirements set by frameworks such as the aqueduct water risk framework and national legislation. In parallel, we are constantly exploring and investing in new technologies to improve environmental performance.

Our measures for water management and wastewater treatment processes include:

- Use of recycled wastewater for irrigation
- Controlled use of evaporative coolers
- Better water metering
- Setting up reverse osmosis permeate facilities

## HOW WE IMPROVE WATER MANAGEMENT THROUGH OUR INNOVATIVE TECHNOLOGY

### WATER-FREE ROBOTIC CLEANING TECHNOLOGY IN SOLAR PARKS

Water-free robotic cleaning technology is designed to optimize photovoltaic panel performance in solar parks while cutting operational costs, as it removes 99% of dust daily, keeping panels at top production even in the harshest desert conditions.

This is being piloted in a few of our renewable projects.

### WATER SAVING DEVICES

We continue to implement practices to reduce water consumption. We are placing water-saving devices at our operational sites.

### RECYCLED AND SCHEME WATER TO TACKLE WATER SHORTAGES IN AUSTRALIA

Managing water consumption in Australia is challenging due to droughts and heat waves. In 2021 whilst the Kwinana Power Plant was operational, we introduced a mix of recycled and scheme water at a ratio of 85% to 15% as a method of drought-proofing water supplies. Since December 2021, the plant was not operational and decommissioned.

### PROVIDING CLEAN DRINKING WATER THROUGH DESALINATION

In the GCC region, our 15 desalination plants provide 1,300 MIGD of water and ensure access to clean water for millions in a water-stressed region.

## WATER REMINERALIZATION THROUGH $CO_2$ INJECTION:

Our 15 water desalination plants across the Middle East produce potable water according to specific technologies and processes. We require $CO_2$ to dissolve minerals into the produced water to make it potable. Jointly with operational teams, we conducted a feasibility study of our thermal asset to assess the options to change from burning gas to buying captured $CO_2$. After its pilot phase substantiated the business case at our Bahrain asset, the deployment continues to be operational at our AL Dur asset and we are investigating the feasibility of implementing this on other projects. (This has led to the consumption of more than 15,000 MT of captured $CO_2$, instead of burning gas to produce it).



## WATER STRESS ADAPTATION PLANTS FOR UCH PLANT IN PAKISTAN

As full owners (100%) of the plants in Pakistan, we have full control of sustainability activities. For assets where ENGIE AMEA is minority shareholder, we make sure we work closely with our partners to identify the best ways to reduce our water footprint.

## KEY FACTS

**4,660,386 m³**
of water consumed
Uch-I Power Plant

**3,621,386 m³**
of water consumed
Uch-II Power Plant

## MEASURES TAKEN

- Quantitative parameters of water usage
- Water blow downs (about 5-7%) for irrigation/landscaping
- Cooling water blows down initial recycling about 40-50% back into the system
- Partial use of wastewater for landscaping

### WASTE MANAGEMENT

We make every effort to systematically register and monitor all data related to hazardous and non-hazardous waste. All our sites are certified to ISO 14001 and waste is managed through the approach of reduce, reuse and recycle (3Rs). All our assets and entities adhere to the strict local regulations concerning the proper disposal of hazardous wastes through a pre-approval permit system. Following our comprehensive environmental management plan, we are applying strict procedures regarding the disposal of waste from our fully controlled sites in Australia.

During this reporting period, in the Riyadh PP11 plant, we undertook some actions to further improve our environmental footprint in terms of implementing waste segregation at source whereby we have placed 4 bins marked with waste type in each room of the company. We have also replaced the company's high fuel consumption vehicles with low consumption vehicles. Finally, we moved towards digitalizing aspects of our work to save energy i.e., Designated Person's Instruction (DPI) using the VYNtelligence tool.

## IN JUBAIL O&M (JOMEL), SAUDI ARABIA, WE:

### Conducted a major oil spill drill (at seawater intake) in the presence of NCEC (National Center for Environmental Compliance)

### Organized an environment town hall event open to all employees and contractors

### Recertified our site according to the ISO 14001 Environment Management System (EMS)

# PROGRESS ON AUSTRALIA'S HAZELWOOD REHABILITATION PROJECT

The closure of the Hazelwood site presents an unprecedented opportunity to reinvigorate the Latrobe Valley and the wider Gippsland Region. The Hazelwood Concept Master Plan has been developed to identify and present the potential opportunities and the future investment potential of the site that surrounds ENGIE's intended final rehabilitated landform of a full 1,281 ha pit lake. It presents a land-use based vision for the future of Hazelwood that looks at how the site could be used by the community, businesses, investors and developers, service providers and government.

## THE CONCEPT MASTER-PLAN FEATURES 3 KEY ZONES FOR FUTURE DEVELOPMENT AND ACTIVITY:

- **Tourism Belt close to Morwell and adjacent to the Lake to provide a centre for tourism, recreation and small-scale agriculture**
- **Mine Lake will be the heart of Hazelwood**
- **Productivity Hub centred around the key adjacent asset of the switchyard. The hub can be home to a range of uses which take from, and feed into the Victorian energy grid**

The Concept Master-plan is an evidence-based approach to the future of the site that responds to detailed site constraints and potential economic opportunities. We are progressing with a site Rehabilitation and Closure Plan (RCP) which once completed will define the approved rehabilitation essential to be in the mine license area, relinquish the mining license and enable sequential land uses.

Towards that direction, we work collaboratively with a wide range of stakeholders including the local community and various government agencies.

## DURING 2022, WE:

- **Completed 390,000 work hours on the Hazelwood Rehabilitation Project**
- **Held community information sessions in Morwell and Traralgon during August and September to share more information with local stakeholders and the wider community about the project and the Environment Effects Statement (EES) process**

Moving forward, we intend to prepare an EES for the Hazelwood Rehabilitation Project including the proposed mine lake

**This reinvigoration plan will create a lasting legacy for Hazelwood, catalyze a new era of energy, agricultural production, recreate tourism for the Latrobe valley and celebrate the site's historic value for many years to come.**

For more information, please visit: https://www.hazelwoodrehabilitation.com.au/



# PRESERVING NATURAL ECOSYSTEMS:
## OUR ONGOING COMMITMENT TO BIODIVERSITY CONSERVATION

For more than 2 decades, we have integrated the protection of biodiversity in the value chain of our asset's life, being aware of the impact our operational activities and industrial sites pose upon natural ecosystems.

We conduct all necessary environmental and social impact assessments that are executed by credible third parties. These assessments are carried out before any development activities, ensuring that all necessary precautionary and mitigating measures are undertaken during the entire life cycle process. All projects receive adequate approvals from local environmental authorities before any development process.

## OUR COMMITMENT TO 3 INTERNATIONAL INITIATIVES:

- **Business and biodiversity pledge (Convention on Biological Diversity)**
- **Act4nature (collective and individual commitments)**
- **Preservation of UNESCO world heritage sites**

We have developed a proactive policy to control and reduce our footprint in the surrounding environment reflected in various local initiatives we implement, primarily the Blue Carbon project.

We are committed to supporting nature-based projects, therefore we continued our partnership with EcoMatcher. EcoMatcher, is a certified B corporation which has the goal to promote the planting of trees and complete forests via working together with vetted foundations and NGOs from around the world. Through EcoMatcher technology, we know everything about every tree, as it offers total transparency and allows us to visit virtually every tree.

For more information please visit:
Ecomatcher
https://www.ecomatcher.com/company?cmp=Engie

## IN 2022:

**4,305**
Planted trees

**105.2**
tons $CO_2$ Carbon sequestered to date

**21**
Supported families

**1,075.8**
tons $CO_2$ Carbon sequestered over life time

## TREE LOCATIONS

# OUR FLAGSHIP PROJECT IN THE UAE: THE BLUE CARBON

We have continued our strides on our Mangrove Rehabilitation projects in the UAE. Rehabilitating mangrove ecosystems is an effective way to mitigate the effects of climate change and restore natural habitats and biodiversity. For more than 3 years, we work closely with the Environment Agency in Abu Dhabi EAD and Distant Imagery to rehabilitate and restore the mangrove forests in the coastal waters of the Emirates by using state of the art drone technology in an area of approx. 30ha. We are all proud of our Blue Carbon flagship project as it provides nature-based innovative solutions and scientific expertise to act as natural carbon sinks plus ensuring an array of other ecosystem benefits.

**Having started with 2,000 seeds, then 35,000 (2021), we have reached 150,000 in 2022 and we are expecting to plant a total 250,000 seeds by 2023 through our partnership with the Environment Agency Abu Dhabi (EAD) and Distant Imagery, utilizing drone technology to support ecological based mangrove restoration. Illustrations have shown successful growth of our 2022 planting, where we see little mangroves sprouting across the marine landscape.**

Blue Carbon

## KEY HIGHLIGHTS 2022

**150,000** **seeds were planted**
in the Mirfa pearl site area using drones

**>45** **volunteers**
from ENGIE AMEA participated in seed collection to ensure the same species are grown in the UAE within the same environment same environment

**40%** **successful growth**
rate across the entire planted area

Seed-dropping mechanisms and methodology were refined and adapted to soil structures and surfaces based on seed health and environmental conditions. This ensured higher success rates for natural adaptation

Integrated machine learning into our processes and will continue to further utilize Artificial Intelligence

Improved our germination processes with the view to make them more nature-based

**ALL DRONE COMPONENTS MADE IN THE UAE**

# OUR AMBITIONS MOVING FORWARD

- Continue to map the various economic, environmental and climate adaptation plans and risks associated with our activities.
- Work towards developing a critical material path to ensure the management and end-of-life process (circularity) of critical materials.
- Continue and intensify our efforts to achieve the development of renewable energy.
- Work closely with our customers, to better understand their needs as well as implement value adding solutions in their journey to decarbonize.
- Continue to support our suppliers and actively prioritize SBTi suppliers.
- Work to develop carbon sinks to neutralize residual emissions over the long term and thus contribute to the right level to planetary carbon neutrality.
- Support our customers in the reduction of their GHG emissions to accelerate decarbonization of our own value chain.

# HOW WE CONTRIBUTE TO THE SDGS

In line with the Group's strategy towards Net Zero and in respect of our climate commitments under the Paris Agreement, we work systematically to ensure progress in all main focus areas namely, climate change and action, energy management and efficiency, promotion of circular economy, respect of biodiversity, water management and conservation.


## OUR KEY CONTRIBUTIONS TO SDGS

- **We play a pivotal role** to ensure stable energy access and security
- **We are committed to continuously increase** our renewables capacity and keep investing in clean energy technologies such as green hydrogen
- **We keep strengthening** our local partnerships to help local governments achieve their decarbonization targets in all the markets where we operate



Blue Carbon

# BUILDING A THRIVING & INCLUSIVE CULTURE

## KEY HIGHLIGHTS 2022

- 7,824 Employees
- 67 Nationalities
- 18.6% Female employees in managerial positions
- 4.2% Internal mobilities
- 134,091 training hours
- 322 Management Safety Visits
- 93% Engagement score in internal survey "ENGIE & Me"
- 15 female Saudi Nationals participated in a training and hiring program

**We invest systematically in the creation of a fair, healthy and secure working environment for all our employees to ensure their professional development and continuous engagement. Our diverse group of dedicated, skilled employees drives our purpose forward, helping our customers decarbonize while promoting sustainable growth and community development in all the regions we operate in.**

# SAFE TODAY, SECURE TOMORROW: PRIORITIZING HEALTH AND SAFETY AT ALL TIMES

## OUR TRANSFORMATION JOURNEY TO ZERO FATALITY

Inspired by the Group's renewed transformation journey to zero fatality, we are committed to work together towards eradicating serious and fatal accidents. Thus, we are currently operating a robust set of health and safety policies where majority of our operational assets are certified by ISO 45001 and ISO 14001. We are keen to achieve this while we continuously invest in raising awareness through bespoke campaigns and training modules.

## OUR TRANSFORMATION PLAN IS A BLUEPRINT FOR ACTION, NAMELY FOCUSING ON THE FOLLOWING PILLARS:

- Fostering a safety culture through training and coaching programs, targeting the entire company to change its views and perceptions toward risks.
- Engaging the top management at the highest level of the organization to cultivate a safety culture.
- Defining a set of common rules, standards, KPIs, monitoring mechanisms and reporting tools that are applicable to all.
- Promoting engagement towards site audits and setting up a talented pool of HSE experts focused on the prevention of serious and fatal accidents and that would build on existing capacity, knowledge, and expertise of others within ENGIE.
- Strengthen health and safety oversight, during project development stages and especially around the value chain of supplier network through the procurement process.
- Promoting communication and change management programs through workshops, events and campaigns.
- Digitalizing health and safety procedures with "Vyn for Safety» technological solution which improves employee safety as well as helps engineers identify and analyze risk situations, utilizing video and voice recognition and artificial intelligence.



## PEOPLE PROTECTION

### NO LIFE AT RISK

Prevention of risks directly related to the performance of activities, prevention of accidents at work

### NO MIND AT RISK

Preventing risks related to the context of execution of activities, improvement of wellbeing at work, and prevention of psychosocial risks

### NO ASSET AT RISK

Preventing risks related to the industrial process

### DURING 2022, WE:

- Implemented a series of induction training sessions for all employees and sub-contractors.
- Integrated our program lifesaving rules into hazard recognition processes and automated reporting.
- Implemented a robust process including the "Last Minute Risk Analysis (LMRA)", through tech-enabled devices. There are still some sites accessing the process manually and this will eventually transition to tech-enabled devices.
- Included subcontractors in all safety meetings and managerial safety visits as part of shared vigilance.
- Streamlined and integrated HiPo reporting into our operational processes.


Microsoft Teams

# HEALTH AND SAFETY ACHIEVEMENTS AND HIGHLIGHTS 2022

## UCH & UCH-II WINS 2022 NEPRA HSE PERFORMANCE GOLD AWARD

Uch Power and Uch-II topped the Pakistan Power Industry, earning the 2022 NEPRA HSE Gold Award for meeting stringent health, safety, and environmental criteria, outperforming 350 competitors. This followed their prior achievement of a bronze award in NEPRA's inaugural competition.

## DISTINCTION AT THE INTERNATIONAL SAFETY AWARDS 2022

ENGIE Solutions is one of 135 organizations to win a distinction in the International Safety Awards 2022. This recognition is by the British Safety Council for our commitment to keeping our workers and workplaces healthy and safe.

## IMPORTANT HEALTH AND SAFETY MILESTONES 2022

- ENGIE Southeast Asia commemorates the achievement of 200,000 safe man-hours without Lost Time Incident (LTI) for our Central Utility Building (CUB) project.
- ENGIE India has achieved over 20 million safe man-hours without any Loss Time Accident.
- Barka 3 asset in Oman has achieved 4,000 days Lost Time Accident Free (LTA)
- PP11 plant, a 1,730 MW combined-cycle gas-fired power plant in Saudi Arabia, has achieved a perfect safety record from 2011 by recording an outstanding 4,000 days without an LTA and a period of 3 million hours worked without an LTA.
- In South Africa:
  - at Avon asset, we have maintained over 6 years no LTAs
  - at Dedisa assets, we have maintained for 7 years no LTAs
  - at Kathu operations we have maintained 3 years of no LTAs



# BUILDING A SKILLED WORKFORCE: ATTRACTING AND RETAINING TOP TALENT IN THE REGION

Ensuring that we attract and retain top talent goes beyond simply guaranteeing the satisfaction of our employees. We acknowledge that a fair, diverse, inclusive and respectful workplace is crucial to support individuals in their growth and success. We strive to provide an environment that empowers our employees to evolve and flourish.

| EMPLOYEES (HEADCOUNT) | ENERGY SOLUTIONS | FLEXIBLE GENERATION & RETAIL | RENEWABLES | GRAND TOTAL |
|---|---|---|---|---|
| Australia | - | 190 | 140 | 330 |
| GCC & Pakistan | 2,700 | 2,205 | 2 | 4,907 |
| India | 3 | - | 77 | 80 |
| North Africa | - | - | 18 | 18 |
| South Africa | - | 87 | 136 | 223 |
| Southeast Asia | 1,927 | 336 | 3 | 2,266 |
| Grand Total | 4,627 | 2,821 | 376 | 7,824 |

# OUR DISTINCT WORKING CULTURE

## ENGIE WAYS OF WORKING

In line with the Group's direction, our ways of working, leading and learning are all components of our distinct working culture. They reflect our new organizational strategy and include a set of common behaviors, rules and targets applicable to all employees. By respecting this framework, employees become transition makers, thus enabling the company to be the champion of zero-carbon energies.

**The ways of working comprise of 5 main principles, namely:**

- Focus on the business, in terms of concentration on what really creates value for the business
- Collaborate beyond the current hierarchical structures
- Commit to delivering in terms of being accountable to your targets
- Promote engagement
- Prioritize actions in terms of developing a concrete framework of actions

## ENGIE WAYS OF WORKING

**5 key principles to define the ENGIE working culture. By respectig the associated behaviors, by embodying them, employees will be the Transition Makers who will enable ENGIE to be the champion of zero carbon energies.**




## ENGIE WAYS OF LEADING

ENGIE's leadership plays a crucial role in effectively steering the organization towards its goals and purpose, by setting clear direction, motivating the team and making strategic decisions to ensure the successful fulfilment of targets. During 2022, we completed our leadership model entitled "Ways of Leading" with the view to further strengthen our common working culture. This model which is applicable to all managers, comprises 5 commitments and 20 identified behaviors and focuses on what the company needs most today in terms of leadership to support our transformation journey.

## ENGIE WAYS OF LEADING

**5 key principles to define the ENGIE leadership culture. By respecting the associated behaviors, by embodying them, leaders will enable ENGIE to be the champion of zero carbon energies, empowering their people to be the Transition Makers.**

# EMPOWERING GROWTH: UNLEASHING POTENTIAL THROUGH TRAINING AND DEVELOPMENT

All our training and development programs are designed to promote creativity and innovation, enhance people's capabilities and skills while strengthening employee engagement and collaboration.

### FOSTERING A CULTURE OF CONTINUOUS LEARNING

Our working culture encourages continuous learning. Accordingly, we have adopted the Group's distinct "70-20-10 Learning Model" at regional level, to inspire, retain and engage our employees and help them achieve their full potential in their respective fields of activity.
Throughout the year we develop and implement numerous training and development programs including online learning courses, learning days and academies enabling our employees to expand their knowledge and skills.

## TRAINING HOURS BY GENDER

| | |
|---|---|
| Male | 115,766 |
| Female | 18,325 |
| **Total** | **134,091** |

Additionally U-learn «e-learning» hours: 33,480

## OUR FLAGSHIP TRAINING AND DEVELOPMENT PROGRAMS:

- Bespoke programs; Sustainability Academy encourages 24/7 learning through a nonstop 48-hour cycle around the world
- The ExpAND Program
- The Mentorship Program
- The BOOST Program
- AMEA learning days (3 week long dedicated learning sessions open to all staff to access different learning modules and development sessions)
- ENGIE University
- The GCC Leadership Development Program for nationals
- Emerging Talent Programs in South East Asia

"Through unlocking the potential of our employees, fostering their growth, and building a culture of empowerment and inclusivity within the organization, we drive sustainable transformation towards carbon neutral emissions"

**LEMJED BOUZEKRI**
HR VICE PRESIDENT - ASIA, MIDDLE-EAST AND AFRICA.



## THE AMEA LEARNING DAYS

**The AMEA Learning Days is a new concept introduced in 2022 to accommodate the needs of our region.**

**In cooperation with ENGIE University and local partners, the program was open to employees across AMEA, it included a wide array of topics ranging from personal development, time management, communications and coaching sessions to financial and more technical areas such as data analytics, cybersecurity, health and safety, climate change and biodiversity. A big part of our capacity building approach focuses on our core business solutions, business strategy and growth plans. Through these sessions, teams from across the business can highlight challenges and opportunities of project development and implementation.**

### KEY HIGHLIGHTS

Special "Sustainability Days" on sustainable procurement, ESG frameworks/ Standards, reporting etc

Participants across 15 countries and multiple geographies such as the GCC and Pakistan, Southeast Asia, Africa, Australia, AMEA Hub (UAE)

**17**
**Training programs**

**29**
**Learning activities**

**1,900**
**Total employees trained**

**6,183**
**Total learning hours**

## ENGIE AMEA BOOST

This unique global initiative aims to prepare the next generation of company leaders to successfully support the purpose and transformation journey of ENGIE. At the local level, the ENGIE AMEA BOOST is comprised of 4 leadership development tracks, the “Up International” and “Up Local”, which take place over a period of 18-24 months and include activities such as formal learning sessions, targeted assessments, peer learning, networking and strategic assignments.

**100**

**Number of AMEA employees benefited from the “ENGIE Boost” initiative by development tracks**

## BOOSTER NEW COHORT

| | Female | Male | Total |
|---|---|---|---|
| **Pulse** | 1 | 7 | 8 |
| **Rise** | 11 | 9 | 20 |
| **Up International** | 11 | 35 | 46 |
| **Up Local** | 5 | 21 | 26 |
| **Total** | 28 | 72 | **100** |

## EXPAND PROGRAM

The program utilizes a rich network of experts as ambassadors with the intention to promote learning and exchange of knowledge, expertize in a wide array of topics and technological or functional sectors. In the AMEA region we are dedicated to the ongoing development of our AMEA experts and proud to support local and international projects and initiatives.

| Genders | ExpANDers - Global | ExpANDers - Key | ExpANDers - Local |
|---|---|---|---|
| **Female** | 1 | 1 | 3 |
| **Male** | 2 | 15 | 36 |

The above numbers represent the number of ExpANDers in the region; thus, they do not reflect the entire ENGIE. In more detail:
- 3 in AMEA that represent the Global portfolio of ExpANDers
- 16 in AMEA that represent the KEY ExpANDers
- 39 in AMEA that are local and regional ExpANDers

**We take pride in our Global Expander pool, comprising approximately 58 experts who are all dedicated to fostering growth and sharing their expertize across borders.**



ENGIE Boost

ENGIE Boost

### NEW MENTORING PLATFORM @ENGIE AMEA

In 2022, the Group launched a new Mentoring program platform that further enhances the supporting relationship between mentor and mentee across the organization and accelerates employee development and growth. ENGIE AMEA has been amongst the first regions to pilot the mentoring platform, registering 60 mentoring relations. A mentoring “Meet and Learn” program targeting AMEA mentors were delivered to provide clarity and guidance to participating employees.

### IDENTIFYING AND ATTRACTING TALENTED GRADUATES ACROSS THE REGION

It is of utmost priority to create a diverse and inclusive workforce, while fostering a more coherent corporate culture. Hence, we invest continuously in identifying and attracting young talents from the region in close cooperation with local universities and academic institutions or other bodies.



# REGIONAL DIVERSITY AND INCLUSION (DEI) PROGRAMS

Being present in over 16 countries within the AMEA scope, we are a diverse company, embracing different cultures and nationalities. We have a duty to work continuously towards an inclusive working culture that fosters creativity and innovation as well as empowers people to develop their full potential.

There is a strong commitment towards gender parity in line with the Group’s ambitious inclusion strategy to achieve achieving gender parity in leadership roles by 2030.

We design programs to increase female representation in leadership roles within the organization. During 2022 we continued to monitor several KPIs regarding diversity and inclusion on a monthly basis, mainly observing our progress concerning our target for gender parity for recruitment (i.e., at least 35% of managerial positions must be filled by female), while, simultaneously launching the Be.U@ENGIE policy to enhance our culture and processes.

## OUR KEY INITIATIVES:

- “Women in Networking” groups to drive better collaboration and engagement to promote our DEI programs. A mentoring “Women in Leadership” development program to help foster female talent within the region and ensure the achievement of our Group goals
- Launch of our Be.U@ENGIE
- Diversity, inclusion and gender balance training (U.Learn) is mandatory for all employees in AMEA
  - License to hire (for managers)
  - Managing diversity and inclusion (for managers)
  - Inclusive leader program (for senior leaders and boosters)
  - Wo+Men to lead program (senior leaders and boosters)
  - Fifty-Fifty library in U.learn, comprising a wide learning content regarding managerial gender balance

### WE4SHE GENDER DIVERSITY CHARTER

ENGIE North Africa signed the Gender Diversity Charter in partnership with WE4SHE; a network of women leaders working to promote women's leadership in the African private sector. The signatories of this charter have committed to working towards the following principles:

- Diversity in recruitment
- Equal pay for equal work
- Mixed management and executive committee
- Gender balance in the board of directors
- Representation of women in decision-making instances

### 2022 ENGIE FIFTY-FIFTY AWARDS

The Fifty-Fifty program has been introduced to promote our 50% target by 2030 in terms of accelerating the integration and promotion of women in management positions. The Fifty-Fifty Awards provides a platform for the recognition of initiatives and actions across the Group that work towards achieving managerial parity.
Two (2) AMEA projects were featured as finalists in the 2022 ENGIE Fifty-Fifty Awards, showcasing our commitment to developing and maintaining gender parity.

- North Africa participated in the "Break the Bias through Scenettes"; an initiative that engaged both men and women and tackled a wide range of topics from sexism and recruitment targets to meritocracy and leadership.
- The winning initiative was from Saudi Arabia for the "Rising women in Saudi Arabia's future".

### PROMOTING WORK-LIFE BALANCE

Our initiatives focusing on our employees include:

- Paternity and maternity leave policies
- Flexible and remote working policies

## ENGIE PARTNERS WITH HIGHER INSTITUTE FOR WATER AND POWER TECHNOLOGIES (HIWPT) TO TRAIN 15 FEMALE SAUDI NATIONALS

ENGIE and HIWPT signed an agreement to launch a unique training and hiring program in the field of reverse osmosis desalination, exclusively for Saudi women. The 2-year program will provide theoretical, technical and vocational training and develop 13 Saudi National women to work in water desalination.



# ENGAGING WITH OUR EMPLOYEES

We conduct surveys and polls regularly to increase employee engagement and get their insights on crucial topics. The results of our annual engagement survey 'ENGIE & Me" enables us to set our future priorities and adjust our current activities.

## ENGIE & ME 2022 KEY OUTCOMES

- ENGIE's purpose is widely shared within AMEA: 96% of respondents believe in ENGIE's goals and objectives
- We have seen a strong engagement from our managers to promote collaboration through teamwork: local teams' performance is very well perceived and local line managers are seen to be leading by example, promoting an environment of mutual trust which is goal focused

### NEXT STEPS

- Continue to develop and integrate inclusivity and engagement across ENGIE countries and business units
- Promote activities, learnings and initiatives which are key to maintaining collaboration, effective implementation of ENGIE's strategy and ensuring every employee is part of the ENGIE purpose

### ENGAGEMENT INDEX SCORE

reached

**93%**

highlighting our collective approach to ensuring active engagements of our ENGIE colleagues.

## PROMOTING EMPLOYEE VOLUNTEERISM

Our people are proponents of our sustainability commitments and programs in all the geographies where we are present. As ambassadors of our corporate purpose, we encourage our employees' active participation in social and environmental volunteering initiatives and community development work.

### YANBU 4 SITE IN SAUDI ARABIA:

Yanbu 4 site in Saudi Arabia held an environmental campaign which aimed at banning single plastics use drinking water bottles on site and hosting a beach clean-up activity.

- Reduction of approx. 1 ton of $CO_2$ equivalent of single-use plastic water bottles per year and reduced plastic waste generation
- Raised awareness among employees ensuring continuous contribution towards a sustainable environment
- 200 accumulative man-hours for cleaning activity (Approx. 3 tons of plastic litter and trash were collected)

### VOLUNTEERING FOR MANGROVE SEED COLLECTION:

Over 45 internal volunteers supported our Blue Carbon Project, aimed at environmental protection.

# OUR AMBITIONS MOVING FORWARD

- **Continue to prioritize safety** for all our employees and visitors, ensuring everyone returns home safely every day.
- **Continue to invest in our talent** through diverse development programs.
- **Commit to fostering our inclusive culture** to strengthen our employer brand across all entities and countries.
- **Continue to focus on our DEI program** across AMEA attracting talent into the energy sector and retaining our skilled female workforce.
- **Aim to be EDGE certified in piloted countries** as a testament to our commitment to DEI program.
- **Support our internal expertize** across our business units and through our "ExpAND" program.
- **Continue to engage our employees** through participation, collaboration and open communication channels to ensure a positive and productive work environment that fosters innovation and growth.

# HOW WE CONTRIBUTE TO THE SDGS

Through our numerous employee development, capacity building and health and safety initiatives and programs, we help build a new and more inclusive world of energy while aligning with the SDGs.


## OUR KEY CONTRIBUTIONS INCLUDE:

- **We prioritize health and safety** at work by ensuring regular audit and tracking of occupational-related hazards, as well as health and safety incidents through our managerial safety visits.
- **We foster a culture of inclusion and diversity,** setting ambitious targets and regularly monitoring progress across AMEA.
- **We pay attention to employee well-being and mental health** at work while ensuring that each employee can grow and thrive through our learning and development strategy and numerous capacity building programs.



# STRENGTHENING OUR COMMUNITIES

## BUILDING LONG TERM VALUE AND RESILIENCE TOGETHER

### KEY HIGHLIGHTS

- Water for 600 households and reticulation to an estimated 300 households by Kathu Solar Park
- 300 water filters have been installed through My Mai Project benefiting around 1,000 people
- Uch Plant in Pakistan has awarded 45 scholarships
- Support the delivery of almost 100,000 meals annually across the Latrobe Valley and greater Gippsland in Australia

**Driven by our mission for sustainable economic growth and long-term value creation, we collaborate with distinguished partners, not-for-profit organizations, academic institutions and governmental authorities to develop programs that have a positive impact upon the daily lives of communities across all the geographies where we operate.**

### IN 2022, OUR COMMUNITY DEVELOPMENT PROGRAMS CONTINUED TO LAY EMPHASIS UPON:

- Fair access to energy and water across AMEA providing help for children and promoting education
- Training, education and capacity building, especially for women, and youth

# OUR WORK THROUGH ENGIE FOUNDATION

Throughout the reporting period, the ENGIE Foundation has demonstrated its robust commitment to supporting programs that prioritize access to renewable and sustainable energies, capacity building, and biodiversity. Notably, 52% of the Foundation's projects have been specifically dedicated to these important areas. This highlights the Foundation's strong dedication to initiatives that emphasize the significance of energy access, environmental protection, sustainable growth, and human development.

### THE FOUNDATION'S WORK IS ORGANIZED AROUND 4 MAIN PRIORITIES:

- Emergency aid to populations affected by disasters
- Help for children and education
- Biodiversity and access to energy
- Fight against poverty and integration



# OUR PROGRAMS IN AFRICA

## INSPIRE PROGRAM IN SOUTH AFRICA

Since 2010 the iNSPIRE program continues to empower young women professionally, in South Africa through the Value Citizens organization. The program has achieved promoting a culture of self-leadership amongst female learners which over the years have become purpose driven individuals, first leading within their school communities and then leading their dream careers.

## WIA CODE NGAPAROU PROGRAM IN SENEGAL

The WIA Code Ngaparou program in Senegal, launched by Women in Africa, aspires to prepare young girls for careers in science, technology and innovation in Africa. Through the program, young African women are given the chance to get training in coding and science. During January - September 2022, 36 girls from the Lycée Serigne Mamadou Lena Diop of Ngaparou, age 16 to 20, participated in the WIA Code program which was incorporated into their school program once a week.

## ACCELERATE ENERGY TRANSITION IN MOROCCO IN COOPERATION WITH GERES

The "Energy Morocco Program" contributes to the acceleration of the energy transition by mobilizing all stakeholders, around flagship actions. The project has already benefited 150 schoolchildren and educational staff while 300 SMEs and associations have been trained in climate change topics and energy efficiency solutions.

### IN TOTAL WE SUPPORTED

**6**
public high schools

**204**
reached students from grade 9

# OTHER ONGOING COMMUNITY PROJECTS DEVELOPED IN AMEA WITH THE SUPPORT OF THE ENGIE FOUNDATION:

## PROMOTING SUSTAINABLE BEEKEEPING PRACTICES IN MOROCCO

ENGIE Foundation has been supporting GoodPlanet Foundation in Morocco by working with 3 beekeepers' cooperatives in the Mesguina forest to promote sustainable practices within the beekeeping sector and raise awareness amongst the population regarding the importance of bee' preservation.

### OVERALL BENEFICIARIES

- 95 beekeepers accompanied
- 120 farmers and students sensitized
- 84,000 inhabitants of the 3 rural communities (Amskroud, Idmine and Drarga)



## "ACCESS TO ENERGY FOR ALL" PROGRAM

Our flagship "Access to Energy for all" humanitarian program was created by voluntary and committed collaborators in Belgium and France with the view to bring access to energy to the most disadvantaged and isolated populations in the world thanks to the provision of sustainable, long term, autonomous and low-carbon energy installations. The program's 2022-2025 framework agreement includes an ambitious target of reaching one million beneficiaries by the end of 2025. In 2022, the foundation supported 40 projects which were carried out through the contribution of 67 volunteers.

## "ENERGY FOR HOPE" PROGRAM IN SENEGAL PROMOTES ACCESS TO SOLAR LAMPS IN SCHOOLS

The program promotes access to solar lamps within 10 elementary school and colleges as well as develops a distribution network in the last kilometres for the access of children and their families to energy and all subsequent services in the fields of health, education and protection.

### KEY OUTCOMES

- Equipping 10 elementary schools with solar lamp charging stations
- Beneficiaries: 2,000 students in 10 primary and secondary schools
- 10,000 villagers will have access to energy goods and services provided by solar energy kiosks in the pilot area of the Dagana Department

## ENERGY TO SAVE LIVES AT PANZI HOSPITAL (DRC)

Panzi Hospital was founded by 2018 Nobel Peace Prize laureate, Dr. Denis Mukwege, a hospital renowned for its goal to help women survivors of sexual violence related to armed conflict. Each year, around 2,300 women victims of sexual violence are operated on. The ENGIE Foundation financed the energy equipment for 5 new operating theatres where the work was carried out by the employees of the internal NGO Energy Assistance Belgium.

## ENERGY FOR THE POOREST: SOLAR STREETLIGHTS FOR THE VILLAGES OF AKAMASOA IN MADAGASCAR

Thanks to the mobilization of Energy Assistance France and the volunteerism of our employees in addition to partnership with the Humanitarian Association AKAMASOA, founded by Father Pedro; 9 solar streetlights have been installed around the 3 sports fields in various villages around Antananarivo in Madagascar, to help local communities living in poverty. A total of 5,000 young people have benefited from the initiative.

# OUR PROGRAMS IN INDIA

## COMMUNITY SUPPORT IN INDIA

The “Mobile Clinic” project supports women and girls in vulnerable communities in Jaipur slums to gain access to much needed health care, education and learning while contributing to changing social patterns. 120 girls and 120 women are trained to become health education trainers in the areas covered by the program.

### KEY OUTCOMES

**10,000**

**Beneficiaries: including 6,000 girls under 18 and 4,000 women over 18**

**10,800**

**medical consultations**

**7,200**

**psychosocial consultations provided each year in the Mobile Clinic**

## PARTNERING FOR BRINGING CLEAN WATER TO THE MARRIYARENDAL VILLAGE IN TAMIL NADU, INDIA

Following WHO standards; a consortium of partners announced the signing of an agreement to convert contaminated groundwater into potable (clean drinking) water, to more than 1000 people from Mattiyarendal and surrounding villages. The agreement helps address the increasing water scarcity needs of the local communities. The water purification system is expected to clean up to 500,000 liters of contaminated water per day, using only wind or solar energy, at a very low maintenance cost of $100 per year. The project is still on-going and will continue its implementation in 2023.




## UNLOCKING THE HUMAN POTENTIAL OF INDIAN CHILDREN, THROUGH EYE HEALTH AND INCLUSIVE EDUCATION IN INDIA: THE YUVA VIKAS PROJECT

The project entails awareness raising, capacity building actions and infrastructure improvement initiatives such as the development of eye health specialty services and the establishment of free screening clinics and surgical camps. The proposed project targets the poor, illiterate and most vulnerable people residing in remote areas of District Fazilka (Punjab). Special attention is paid to persons with disabilities, and especially children, whose eye care needs have worsened during the Covid-19 pandemic (when schools screening were suspended) and who continue to have little or no access to education, healthcare, employment and other social and civic spheres of participation. The project is still on-going and will continue its implementation in 2023.

# BUILDING INCLUSIVE GROWTH WITH RASSEMBLEURS D'ENERGIES

### THE FIRST MISSION-DRIVEN COMPANY OF THE ENGIE GROUP

Leveraging our expertize as an energy company, ENGIE Rassembleurs d'Energies has opted to provide both financial and technical investments to aid the expansion of solutions that emphasize green and inclusive energy as crucial factors for addressing fundamental human needs and empowering vulnerable populations. Supporting the SDGs by exploring new business models and promoting their adoption, the company has been financing and assisting social entrepreneurs globally with the view to building inclusive growth. The team at ENGIE Rassembleurs d'Energies consists of ENGIE employees dedicated to developing and managing a portfolio of social enterprises aligned with this mission. Through the Solidaire Flexible mutual fund, 22,000 ENGIE employees have invested their savings in support of these enterprises. Recently, the company revised its articles of association to formally incorporate its mission, becoming the first mission-driven company within the ENGIE Group.

The Impact: The supported companies have facilitated access to sustainable electricity for over 7,8 million beneficiaries worldwide, avoided the emissions of 2,1 Mteq$CO_2$ per year, equipped 437 schools, renovated and provided heating for more than 10,000 homes and generated 33,000 jobs, out of which 2/3 are targeting women.

### KEY FACTS

- €38 million investments in 31 companies
- A portfolio of 22 social companies
- over 4 continents

# LEADING EXAMPLES:
## SUPPORTING LOCAL COMPANIES ACROSS AMEA TO CREATE INCLUSIVE GROWTH

### PARTNERING WITH ATEC TO ACCELERATE THE TRANSITION TO CLEAN COOKING TECHNOLOGIES AND FUEL

3 billion people, which is one third of the global population, lack access to clean and modern cooking services. Partnering with ATEC aims to expedite the shift to clean cooking technologies and fuels for the 3 billion people worldwide without access to modern cooking services. ATEC's disruptive technology offers affordable, high-quality low-cost cooking solutions, supported by our digital business model, pay-as-you-go and carbon credits.

ATEC's Impact Flywheel white paper highlights the massive triple-bottom-line opportunity in simultaneously addressing clean cooking and related climate change impacts. Data-validated carbon credits, which can be sold to organizations pursuing net-zero goals, have the potential to resolve a significant global social impact issue. ENGIE is the first to purchase ATEC's carbon credits, supporting biogas projects in Cambodia and ATEC's new electrical cookstoves in Bangladesh and Camboddia. This long-term agreement ensures quality offsets for ENGIE while enabling ATEC to pursue its ambitions in Cambodia, Asia and prepare expansion to Africa.

### KEY FACTS

**30,600**
tons of GHG offset/year

**48,400**
beneficiaries

**67,000**
tons of recycled waste



# PROMOTING FAIR ACCESS TO ENERGY AND WATER ACROSS AMEA

Providing affordable access to energy and water to communities where we operate is important to all of us at ENGIE AMEA and is considered a core component of our business purpose. Therefore, we build or repair critical infrastructures whilst offering innovative technologies and solutions that can provide communities with access to critical utilities and services.

### "MY MAI" PROJECT PROVIDES ACCESS TO SAFE DRINKING WATER IN KUWAIT

Through the "My Mai" project, new tap water filter systems are installed in houses of lower income families and filter cartridges are periodically replaced, thus providing access to clean drinking water supply systems, while contributing to the health and wellbeing of the entire community. Employees, volunteers and partners have already installed 250 water filters to provide over 2,500 people with safe and secure access to water. During this reporting period; in 2022, we continued our efforts by installing 300 filters and helping around 1,000 people.


### PROVISION OF POTABLE WATER TO RURAL COMMUNITIES IN SOUTH AFRICA

The Kathu Solar Park in South Africa has supported the provision of bulk water capacity for approximately 600 households and reticulation to an estimated 300 households.

### UCH POWER PLANT IN PAKISTAN HAS SUPPORTED

- The installation of 13 water filtration points to provide access to water to over 30,000 people and maintenance of systems
- The deployment of electric lines for the electrification of local villages

# ENVIRONMENTAL AND CONSERVATION HIGHLIGHTS IN SOUTH AFRICA

In Port Elizabeth, South Africa, a successful installation of water tanks took place, ensuring the safe storage of clean drinking water. A total of eight Jojo tanks were installed across eight schools, each tank holding 5000 liters of water. Through this initiative, 9717 students in Port Elizabeth now have access to clean drinking water.

This campaign focused on educating individuals about water protection, conservation, and responsible water usage. Additionally, various methods of water testing and monitoring were implemented in schools. Water samples were collected from the river to assess its health. As a result, 119 learners received training on water awareness and the issue of water pollution.


## FACTS

**9,717**

learners received clean drinking water

**119**

learners were trained and participated in this initiative at schools

# EDUCATION TRAINING AND CAPACITY BUILDING PROGRAMS ACROSS THE REGION

We believe that investing in the empowerment of local communities through education and capacity building initiatives increases engagement, fosters local dialogue and improves livelihoods. Accordingly, we work continuously with our local partners and institutions to develop local skills and talent.

## AURORA WIND POWER PLANT

The Aurora Wind Power plant, in which ENGIE is a shareholder, empowers vulnerable communities through education and skills development initiatives, so that beneficiaries may gain access to meaningful employment opportunities, that in turn will enable them to improve their standard of living, and be able to afford better shelter, nutrition, healthcare and transport.

**Education Initiatives:**

- Early Childhood Development programs in Louwville and Langville benefited 1,350 children (aged 0-6 years) with access to quality ECD, either at home or at the 24 ECD centers that received support.
- The home-based ECD program employed 18 ladies as Family Community Motivators (FCMs), who were trained in the Essential Package of Services, ultimately impacting 300 households.
- The Mathematics and Science Improvement program has benefited 7 schools, reaching 118 educators and 6,562 learners. Schools received laptops and projectors as well as training in the Mathematics and Science software. In addition, 500 scientific calculators were donated to Louwville High School. Year on Year academic achievements have shown that the Mathematics and Science program contribute towards a 30% improvement in Grade 12 academic results in both subjects.
- The Bursary program provided 15 youths with full bursaries.

## SKILLS DEVELOPMENT INITIATIVES:

- **Sondela Dialogue program was successfully completed by 72 students from 3 beneficiary High Schools.**
- **iChoose Responsible Parenting Program was successfully completed by 194 parents / caregivers.**
- **iValue Entrepreneurship Program was piloted in 2022 at both Louwville High School and the Genesis Youth Hub. The program benefitted 47 aspiring entrepreneurs who successfully completed the first year of the two-year program.**

## ENGIE COLLABORATES WITH THE NATIONAL SKILL DEVELOPMENT CORPORATION (NSDC) IN INDIA

Our collaboration with the National Skill Development Corporation (NSDC) in India aims to train 600 youth as solar module technicians which was initiated in 2022 and will be carried out till 2024. The goal is to impart the knowledge, skill and necessary trainings addressing the niche market of young graduates preparing them to enter the employment market.

Through this development project, we aim to ensure a just transition through capacity building as countries embark on their energy transition journeys, in alignment with our vision to create an impact among youth through employment opportunities.

## ENGIE PARTNERS WITH MISK FOUNDATION TO TRAIN LOCAL TALENT IN SAUDI ARABIA

Driven by our belief in the importance of transferring knowledge between generations; we have recently partnered with MISK Foundation to support the foundation's Job Shadowing Program in Saudi Arabia. The program specifically intends to assign 54 mentors to 43 high school students and provide participants with a valuable work placement. In doing so, we will help equip participants with the necessary skills to explore various career paths across the fields of Engineering Sciences, Computer Science and Information Technology, Finance and Accounting, Business Administration Science and Law and Advocacy.




# SUPPORTING LOCAL SME'S

## COMPLETION OF THE ENTERPRISE DEVELOPMENT PROGRAM FOR 24 SMALL, MEDIUM AND MICRO ENTERPRISES (SMMES) IN SOUTH AFRICA

Avon power plant supports the implementation of the Sustainable Enterprise Development initiative in the surrounding schools, including the maths and science tuition program for school children and the "Bridging for Life"; a youth leadership programme. The program consists of industry specific business development support services over a period of 12 months for small, micro and medium-sized enterprises (SMMEs) in Construction and Engineering, Information Technology Manufacturing and Energy and Electrical sectors. We are proud to announce a 100% success rate for all schools.

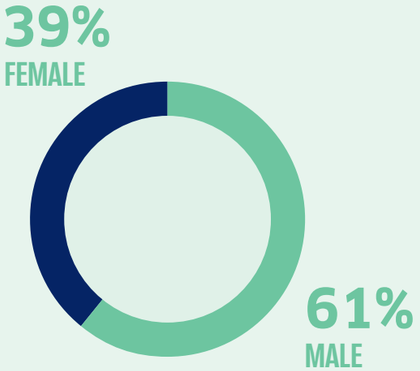
## ENTERPRISE DEVELOPMENT PROGRAM

We continue our Enterprise Development Program at our Xina Solar One power plant with our partners, to better equip local enterprises with finance and client reporting skills. In addition, we established a local Socio-Economic Development (SED) Hub for professional use by Socio-Economic and Enterprise Development team members, SMME's, program implementation partners, community trustees. It is also a place where general enquires can be made by local community members. The SED Hub benefits numerous beneficiaries.

## SUPPORTING LOCAL SCHOOLS IN PAKISTAN

The Uch Plant in Pakistan in collaboration with The Citizens Foundation (TCF) a leading non-profit organization in the field of education for the less privileged has constructed 3 primary and 1 secondary Uch-TCF schools and partially supports its operational expenses. In addition, Uch also contributes in upgrading selected local school facilities and their infrastructure.
To promote female education and increase female enrolment at the Secondary school level, Uch-TCF is collaborating to construct a female only secondary school at Dera Murad Jamali. This is a 2-year project expected to be operational in April 2024.

### TCF-UCH SCHOOLS




**1,541** Number of students enrolled at TCF-Uch Schools in 2022

**17,323** Total number of students enrolled at TCF-Uch Schools since program start

**45** Number of annual graduate scholarships awarded in 2022

Number of annual scholarships awarded in the reporting period refers to the need based university scholarship program

### UCH GRANTING SCHOLARSHIPS

**Uch power plant awards scholarships to students from Balochistan, where it operates, to complete their degrees at reputed national universities. Under its scholarship program, Uch has awarded 45 scholarships in 2022.**



## KATHU SOLAR PARK SOCIAL SOLIDARITY WITH OUR PARTNERS

In 2022, Kathu Solar Park donated 10,000 disposable gowns to the Department of Health for health workers to support the COVID19 pandemic. In partnership with Uhambo Foundation, two outreach clinical services vehicles were procured and specifically equipped to provide occupational therapy and physiotherapy services. Accessibility of occupational and physiotherapy services will benefit rural and remote beneficiaries who typically cannot access centralized clinics.

## OTHER COMMUNITY SUPPORT AND SOCIAL COHESION PROGRAMS ACROSS AMEA

In Saudi Arabia, the Yanbu International Water Company (YIWC) signed a collaboration agreement with “Charity for Ar Rayis” on 7 September 2022. The agreement enables YIWC to support 91 children of school age from families with low resources based in the Ar Rayis town by providing school bags and stationery for school New Year 2022 / 2023.

## OUR PROGRAMS IN AUSTRALIA

### In Australia we continued:

**To support the delivery** of almost 100,000 meals annually across the Latrobe Valley and greater Gippsland via 13 local distribution agencies meeting the needs of disadvantaged communities.

**Empowering children** to create better futures for themselves through education. We are supporting childhood charity «The Smith Family» by providing financial assistance, tailored learning programs and one-on-one support to young Australians.

**To sponsor outdoor education** excursions such as the 100 km 8day hike for at risk youth, to divert them from the criminal justice system, in partnership with the “Operation Flinders”.

**To work closely with suppliers** and disadvantaged youth social enterprises to deliver community benefits through good procurement practice and support indigenous suppliers. Under this scheme, in 2022, we committed to spend approximately €375,000 with targeted suppliers which helped maintain or create 16 jobs.

**To support the work of “Very Special Kids”** through hospitalization and professional family support services.

# OUR AMBITIONS MOVING FORWARD

Moving forward, we intend to keep on working closely with all local partners and stakeholders in all the markets where we are present with the view to continue supporting impactful programs that improve local livelihoods, contribute to human development and enhance people's skills and capabilities.

# HOW WE CONTRIBUTE TO THE SDGS

Through our initiatives, we strengthen our communities, build long term value and support the attainment of the SDGs.


## OUR KEY CONTRIBUTIONS INCLUDE:

- **Development of initiatives** that focus on addressing the lack of education in remote and disadvantaged communities, while investing in social cohesion, capacity building and educational programs across AMEA
- **Support the weakest** and most vulnerable communities through the ENGIE Foundation
- **Continue to support** a Just Energy Transition program in all geographical locations in which ENGIE operates



# OPERATIONAL INDICATORS

| ENGIE GROUP FINANCIAL FIGURES AS OF 31 DECEMBER 2022 | | | | |
|---|---|---|---|---|
| IN € BILLION | 31 DECEMBER 2022 | 31 DECEMBER 2021 | Δ 2021/20 | Δ 2021/20 ORGANIC |
| Revenue | 93.9 | 57.9 | +62.2% | +60.4% |
| EBITDA | 13.7 | 10.6 | +29.8% | +27.0% |
| EBIT | 9.0 | 6.1 | +47.2% | +42.7% |
| Net recurring Income Group share | 5.2 | 2.9 | +78.4% | +76.2% |
| Capex* | 7.9 | 6.7 | +17.4% | |
| Cash Flow from Operations** | 8.0 | 6.5 | +24.0% | |
| Net financial debt | 24.1 | 25.3 | €-1.3bn versus 31 December 2021 | |
| Economic net debt | 38.8 | 38.3 | Economic net debt: 38.8<br>€+0.5bn versus 31 December 2021 | |
| Economic net debt / EBITDA | 2.8x | 3.6x | Economic net debt / EBITDA: 2.8x<br>-0.8x versus 31 December 2021 | |

*Net of DBSO and US tax equity proceeds, including net debt acquired.
**Cash Flow From Operations: Free Cash Flow before maintenance Capex and nuclear phase-out expenses.

| ENGIE AMEA REVENUES BREAKDOWN FY 2022 | (€M) |
|---|---|
| Renewables | 49 |
| Energy Solutions | 471 |
| Thermal | 986 |
| Supply | 1,046 |
| Total | 2,552 |

| ENGIE AMEA INSTALLED CAPACITY (MW) | AT 100% | IN % OF CONSOLIDATION | NET OWNERSHIP |
|---|---|---|---|
| In operation | 37,450 | 12,329 | 12,063 |
| Under construction | 18 | 18 | 18 |

| GENERATION CAPACITY BY COUNTRY (MW) | 2022 | | 2021 |
|---|---|---|---|
| | FLEXIBLE GENERATION & RETAIL | RENEWABLES | |
| Australia | 857 | 165 | - |
| United Arab Emirates | 9,717.94 | - | 9,719.94 |
| Saudi Arabia | 7,516.30 | - | 7,578.921 |
| Qatar | 3,755 | - | 3,755 |
| Oman | 2,916.55 | - | 3,695.999 |
| Bahrain | 3,093.51 | - | 3,116.877 |
| Morocco | 1,250 | 316.37 | 1,702.37 |
| Kuwait | 1,519.10 | - | 1,522 |
| South Africa | 1,002.84 | 311.82 | 1,220 |
| Pakistan | 931.29 | - | 932 |
| India | - | 1,055.41 | 781.41 |
| Indonesia | - | - | - |
| Turkey | - | - | 763.1 |
| Egypt | - | 262.50 | 262.5 |
| Senegal | - | 60 | 79 |
| Singapore | 2,564.64 | - | |
| Malaysia | - | 100 | |
| Mongolia | - | 55 | |
| Total | 35,124.17 | 2,326.10 | 35,129.117 |



| NET ELECTRICITY GENERATED (MWH) (AT 100%) | 2022 | | 2021 | |
|---|---|---|---|---|
| | FLEXIBLE GENERATION & RETAIL | RENEWABLES | FLEXIBLE GENERATION & RETAIL | RENEWABLES |
| Australia | 1,601,662.33 | 481,540.12 | 2,101,114.70* | 465,745.87 |
| Indonesia | - | 981,387.24 | - | 716,429.55 |
| Singapore | 9,553,807.10 | - | 9,712,344.45 | - |
| Senegal | - | 105,127.75 | - | 23,732.77 |
| United Arab Emirates | 50,798,140.76 | - | 53,354,566.36* | - |
| Bahrain | 14,659,572.45 | - | 16,855,707.25 | - |
| Kuwait | 13,359,380.61 | - | 12,555,768.10 | - |
| Morocco | 9,693,529.50 | 1,271,491.09 | 9,121,943.39 | 1,213,109.17 |
| Mongolia | - | 178,029.60 | - | 196,670.25 |
| Malaysia | - | 71,858.85 | | |
| Egypt | - | 1,257,506.98 | - | 1,294,015.53 |
| India | - | 2,371,209.88 | - | 2,033,882.24 |
| Oman | 10,763,012.64 | - | 10,811,495.85 | - |
| Pakistan | 6,818,709.14 | - | 7,035,460.37 | - |
| Qatar | 18,633,735.47 | - | 17,433,788.14 | - |
| South Africa | 984,052.83 | 904,490.06 | 975,611.04* | 691,171.60 |
| Saudi Arabia | 59,126,790.76 | - | - | - |
| Total | 195,992,393.59 | 7,622,641.56 | 139,957,799.65* | 6,634,757.00 |

* Restatements of 2021 reported data

| TABREED'S CONNECTED CAPACITY BY COUNTRY (KRT) | | |
|---|---|---|
| CONSOLIDATED | 2022 | 2021 |
| United Arab Emirates | 1,060 | 1,025 |
| Bahrain | 34 | 33 |
| Oman | 52 | 33 |
| Total Consolidated | 1,146 | 1,091 |
| United Arab Emirates | 9 | 9 |
| Saudi Arabia | 110 | 110 |
| Total Equity Accounted | 119 | 119 |
| Total | 1,264 | 1,210 |

| NET STEAM GENERATED (GJ) | | | |
|---|---|---|---|
| 2022 | 2021 | 2022 | 2021 |
| 99,401,058.68 | 475,131.26 | - * | 98,825,258.66 |
| Saudi Arabia | | Australia | |

*Kwinana Cogeneration Plant was a cogeneration facility located 40 kilometres (25 mi) south of Perth, Western Australia. It provided steam and electrical power to the BP Australia Kwinana Oil Refinery and electricity to Synergy. The plant closed in 2022.

# ENVIRONMENTAL INDICATORS

| FUEL CONSUMED (GJ LHV) | 2022 | 2021 |
|---|---|---|
| Australia | 12,018,949.82 | 20,598,959.56 |
| Bahrain | 144,531,436.79 | 165,006,882.49 |
| Kuwait | 111,599,523.12 | 105,634,202.24 |
| Morocco | 86,447,385.90 | 81,498,094.13 |
| Oman | 76,139,658.42 | 86,690,518.41 |
| Pakistan | 49,309,882.05 | 50,989,016.75 |
| Qatar | 158,254,210.14 | 150,924,552.40 |
| Saudi Arabia | 502,962,681.43 | 499,491,011.71 |
| Singapore | 71,558,731.55 | 71,557,814.08 |
| South Africa | 13,000,862.24 | 10,547,539.58 |
| United Arab Emirates | 477,828,346.95 | 503,341,794.43 |
| Total | 1,703,651,668.41 | 1,746,280,385.78 |

| ENGIE AMEA OPERATIONAL CARBON FOOTPRINT (KT $CO_2$ EQ) | 2022 | 2021 |
|---|---|---|
| Direct (Scope 1) GHG Emissions | 3,440.64 | 4,471 |
| Energy Indirect (Scope 2) GHG Emissions | 67.68 | 22 |
| Other Indirect (Scope 3) GHG Emissions | 29,837.30 | 30,146 |
| Total GHG Emissions | 33,345.61 | 34,639 |

GHG Emissions Factors
- Diesel: 2.691 kg$CO_2$/L
- Gasoline: 2.35 kg$CO_2$/L
- LPG: 1.61 kg$CO_2$/L
- Natural gas: 201.96 kg$CO_2$/MWh

Source: 2006 IPCC Guidelines for National GHG Inventories, Volume 2 Energy
GHG emissions is based on the GHG Protocol Corporate Standard and the ISO 14064 (completed by the ISO 14069

| WATER CONSUMPTION (M3) | | PAKISTAN | | AUSTRALIA | |
|---|---|---|---|---|---|
| | | UCH 2* | UCH 1* | Pelican Point** | Canunda** |
| Fresh water | Input | 3,621,386 | 4,660,386 | 50,375 | 20 |
| | Output | - | - | - | 10 |
| Non fresh water | Input | - | - | 216,432,000 | - |
| | Output | - | - | 216,482,375 | - |
| Total consumption | | 3,621,386 | 4,660,386 | - | 10 |

* Thermal assets with high requirements in water for operation
** Renewable assets with low requirements in water for operation

| WASTE MANAGEMENT | PAKISTAN | | AUSTRALIA | |
|---|---|---|---|---|
| | UCH 2 | UCH 1 | Pelican Point | Canunda |
| Non-hazardous waste & by products (tons) | 29.82 | 20.67 | 42.9 | 21.9 |
| Hazardous waste & by products (tons) | 11.71 | 11.67 | 4.4 | 4.76 |
| Recovery rate | 0.0% | 0.0% | 48.2% | 17.85% |
| Recovery rate of non-hazardous waste & by-products | 0.0% | 0.0% | 42.89% | 0.0% |
| Recovery rate of hazardous waste & by-products | 0.0% | 0.0% | 100.0% | 100.0% |

All our assets and entities operating in any local jurisdiction complies with local waste management permits for the removal of hazardous waste.



# SOCIAL INDICATORS

| ENGIE AMEA EMPLOYEES (HEADCOUNT) | GBU ALLOCATION | FEMALE | MALE | TOTAL | FEMALE MANAGERS | MALE MANAGERS | TOTAL |
|---|---|---|---|---|---|---|---|
| Australia | Flexible Generation & Retail | 64 | 126 | 190 | 49 | 72 | 121 |
| | Renewables | 55 | 85 | 140 | 39 | 75 | 114 |
| | Total | 119 | 211 | 330 | 88 | 147 | 235 |
| GCC & Pakistan | Energy Solutions | 118 | 2,582 | 2,700 | 12 | 177 | 189 |
| | Flexible Generation & Retail | 186 | 2,019 | 2,205 | 40 | 420 | 460 |
| | Renewables | - | 2 | 2 | - | 2 | 2 |
| | Total | 293 | 4,614 | 4,907 | 51 | 562 | 613 |
| India | Flexible Generation & Retail | - | 3 | 3 | - | 3 | 3 |
| | Renewables | 10 | 67 | 77 | 5 | 44 | 49 |
| | Total | 10 | 70 | 80 | 5 | 47 | 52 |
| North Africa | Renewables | 8 | 10 | 18 | 7 | 9 | 16 |
| | Total | 8 | 10 | 18 | 7 | 9 | 16 |
| South Africa | Flexible Generation & Retail | 21 | 66 | 87 | 1 | 25 | 26 |
| | Renewables | 46 | 90 | 136 | 20 | 30 | 50 |
| | Total | 67 | 156 | 223 | 21 | 55 | 76 |
| Southeast Asia | Energy Solutions | 283 | 1,644 | 1,927 | 97 | 329 | 426 |
| | Flexible Generation & Retail | 63 | 273 | 336 | 5 | 26 | 31 |
| | Renewables | 3 | - | 3 | 2 | - | 2 |
| | Total | 349 | 1,917 | 2,266 | 104 | 355 | 459 |
| Grand Total | | 857 | 6,967 | 7,824 | 277 | 1,212 | 1,489 |

| ENGIE AMEA HIRES BY REGION AND GENDER* | FEMALE | MALE | TOTAL |
|---|---|---|---|
| Australia | 38 | 35 | 73 |
| GCC | 38 | 275 | 313 |
| Pakistan | 1 | 5 | 6 |
| India | 3 | 15 | 18 |
| North Africa | 2 | 2 | 4 |
| South Africa | 14 | 13 | 27 |
| Southeast Asia | 107 | 474 | 581 |
| Total | 203 | 819 | 1,022 |
| | 19.9% | 80.1% | |

* New hiring is inclusive of both Permanent and Fixed term contracts

| ENGIE AMEA LEAVES BY REGION AND GENDER (VOLUNTARY) | 2022 | | | 2021 | | |
|---|---|---|---|---|---|---|
| | FEMALE | MALE | TOTAL | FEMALE | MALE | TOTAL |
| Australia | 14 | 36 | 50 | 18 | 42 | 60 |
| GCC | 20 | 253 | 273 | 28 | 421 | 449 |
| Pakistan | - | 3 | 3 | 1 | 15 | 16 |
| India | 7 | 47 | 54 | 1 | 13 | 14 |
| North Africa | 1 | - | 1 | 5 | 20 | 25 |
| South Africa | 6 | 18 | 24 | 9 | 128 | 137 |
| Southeast Asia | 111 | 313 | 424 | 155 | 352 | 507 |
| Total | 159 | 670 | 829 | 217 | 991 | 1,208 |

| ENGIE AMEA LEAVES BY REGION AND AGE (VOLUNTARY) | 0-30 | 31-54 | 55+ | TOTAL |
|---|---|---|---|---|
| Australia | 1 | 46 | 3 | 50 |
| GCC | 54 | 215 | 4 | 273 |
| Pakistan | - | 3 | - | 3 |
| India | 19 | 35 | - | 54 |
| North Africa | 1 | - | - | 1 |
| South Africa | 7 | 17 | - | 24 |
| Southeast Asia | 61 | 335 | 28 | 424 |
| Total | 143 | 651 | 35 | 829 |

| ENGIE AMEA NUMBER OF EMPLOYEES BY NATIONALITY | |
|---|---|
| Oman | 194 |
| United Arab Emirates | 241 |
| Bahrain | 118 |
| Saudi Arabia | 823 |
| India | 2,312 |
| Pakistan | 571 |
| Turkey | 5 |
| Kuwait | 36 |
| South Africa | 234 |
| Morocco | 22 |
| Australia | 280 |
| Egypt | 71 |
| Singapore | 659 |
| Tunisia | 3 |
| Malaysia | 183 |
| Philippines | 573 |
| Indonesia | 4 |
| Mongolia | 1 |
| Total | 6,330 |



| ENGIE AMEA OCCUPATIONAL HEALTH & SAFETY KPI'S | FLEXIBLE GENERATION & RETAIL | | RENEWABLES | | ENGIE SOLUTIONS | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | GCC | | SOUTHEAST ASIA | |
| | 2022 | 2021 | 2022 | 2021 | 2022 | 2021 | 2022 | 2021 |
| Fatal accident of contractors | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fatal accident of employees | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lost Time Accident (LTA) | 7 | 3 | 1 | 1 | 2 | 0 | 11 | 6 |
| Lost Time Injury (LTI) Frequency rate | 0.3 | 0.24 | 0.2 | 0.11 | 0.15 | 0 | 1.12 | 2.8 |
| Total Recordable Injury (TRI) rate | Not available | 1.18 | 2.37 | 0.92 | 3.49 | 0.93 | Not available | Not available |
| Safety Prevention rate | 0.92 | 0.97 | 1 | 0.97 | 0.93 | 1 | 0.86 | 0.8 |
| High Potential, Near Miss, and Unsafe Act/Condition Close out rate | 97.8% | 96% | 98.9% | 98% | 98% | 97% | 100% | 100% |
| Management Safety Visits | 38 | 40 | 22 | 5 | 163 | 19 | 99 | 34 |

| AWARD 202 | AWARDS PROVIDER | REGION |
|---|---|---|
| Transaction of the Year for Renewable/Off Grids to ENGIE Energy Access (Africa) and the CrossBoundary Energy Access | Nigeria Power Sector Awards 2022 | Africa |
| Solar Impulse Efficient Solution | Solar Impulse Foundations | Africa |
| Solar Home System Company of the Year | Africa Solar Industry Association (AFSIA) | Africa |
| Jury prize | Internal | Africa |
| Employee's Choice Award | Internal | Africa |
| Blue Innovation Excellence Award | Canstar | Australia |
| Site Safety Award for the Hazelwood Rehabilitation Team | ENGIE's CEO Excellence Award (Internal Award) | Australia |
| 2022 Hydorgen TCP Award of Excellence for NuGen™ "ZEHS" project | IEA Hydrogen TCP | Global |
| Sustainability and Innovation Pioneer in Water at the 1st edition of the Decarbonization and Climate Action (DACA) Awards | The Arab Green Summit (TAGS) | Gulf Cooperation Council, Pakistan, United Arab Emirates (UAE) |
| Great Company to Work for 2022 | EQ Int'l (First Source Energy India Pvt Ltd) | India |
| Best Large-Scale Project for solar power project in Raghanesda, Gujarat | Mercon India Solar Awards 2022 | India |
| Power Project of the Year Award for the NADEC project | Middle East Economic Digest (MEED) | Kingdom of Saudi Arabia (KSA) |
| Middle East & Africa PPP Deal of the Year for Yanbu4 project | PFI Awards 2021 | Kingdom of Saudi Arabia (KSA) |
| Water Deal of the Year for Jubail3B Desalination | IJ Global Awards | Kingdom of Saudi Arabia (KSA) |
| Refinance Deal of the Year for Riyadh PP11 Refinance | IJ Global Awards | Kingdom of Saudi Arabia (KSA) |
| HSE Gold Award for Uch & Uch II projects | National Electric Power Regulatory Authority (NEPRA) | Pakistan |
| Pandemic Resilient Team Award | Singapore International Facility Management Association (SIFMA) | Southeast Asia |
| Smart FM Technology Integration Award | Singapore International Facility Management Association (SIFMA) | Southeast Asia |
| Pandemic Resilient Team Award | Singapore International Facility Management Association (SIFMA) | Southeast Asia |
| R&D Project of the Year for the REIDS-SPORE project | 2022 Asian Power Awards | Southeast Asia |



| AWARD 202 | AWARDS PROVIDER | REGION |
|---|---|---|
| Pinnacle Partner of the Year Award for ENGIE Infrastructure Technology Solutions (ITS) | Schneider Electric | Southeast Asia |
| Outstanding Capability Award for ENGIE Infrastructure Technology Solutions (ITS) | Huawei Singapore | Southeast Asia |
| Outstanding Black Diamond Partner of the Year (SEA) Award for ENGIE Infrastructure Technology Solutions (ITS) | Vertiv | Southeast Asia |
| Impact Investor Award to ENGIE Lab Singapore | Investing in Green Hydrogen 2022 Forum | Southeast Asia |
| WSH Performance (Silver) Award to ENGIE Property Services | Workplace Safety and Health Council (Statutory body under the Singapore Ministry of Manpower) | Southeast Asia |
| Culture of Acceptance, Respect and Empathy (CARE) Award to ENGIE Services Singapore | Workplace Safety and Health Council (Statutory body under the Singapore Ministry of Manpower) | Southeast Asia |
| WSH Award for Supervisors to Vadivelan Sibanyanam of ENGIE Services Singapore | Workplace Safety and Health Council (Statutory body under the Singapore Ministry of Manpower) | Southeast Asia |
| BCA Green and Gracious Builder Award 2022 to ENGIE RCS | Green and Gracious Builder Scheme Approving Authority | Southeast Asia |
| Corporate Winner | National Alumni Association of Singapore (INSEAD) 2022 | Southeast Asia |
| 1st runner up in Energy Sector Category for its sustainability strategy in the Arab region | Arabia CSR Network | United Arab Emirates (UAE) |
| Best Performing Company – Mid Cap to Al Batinah Power Company S.A.O.C | Alam Al-Iktisaad Award 2022 | United Arab Emirates (UAE) |
| Health and Safety Initiative Award | Smart Built Environment Awards | United Arab Emirates (UAE) |
| Best Energy Services Company of the Year | Sustainable Innovation Awards 2022 | United Arab Emirates (UAE) |
| Distinction at the International Safety Awards 2022 to ENGIE Solutions | British Safety Council | United Arab Emirates (UAE) |
| Sustainability and Energy Management Award to ENGIE Solutions | MEFMA Awards of Excellence 2022 | United Arab Emirates (UAE) |
| Utility Project of the Year for Jubail 3B and Ar Rayyis Yanbu-4 proejcts | Middle East Energy Awards 2021 | United Arab Emirates (UAE) |
| Silver Award in Innovation in Sustainable Technologies | Gulf Sustainability Awards 2022 | United Arab Emirates (UAE) |
| Gold winner for the 'Best Net-Zero Initiative' - Large Organisations Category | Gulf Sustainability Awards 2022 | United Arab Emirates (UAE) |

# ABOUT THIS REPORT

ENGIE Asia, Middle East and Africa (AMEA) 2023 Sustainability Report is the 3rd Sustainability Report issued by ENGIE AMEA. ENGIE AMEA is part of the ENGIE Group, a global reference in low-carbon energy and services. ENGIE AMEA is committed to communicate its regional activities through an annual Sustainability Report, aligned with the Integrated Report issued by the ENGIE Group.

The Report covers the period from January 1, 2022 to December 31, 2022. The Sustainability Report is published in July 2023.

## SCOPE AND BOUNDARIES

ENGIE AMEA is a consolidation of entities operating in different regions across Asia, Middle East and Africa, which span across 3 main activities: Renewables, Flexible Generation & Retail, and Energy Solutions. In this year's report, we have also included a section for the Group's subsidiaries. We recognize that our subsidiaries play a vital role in our overall strategy and success, and this section offers a deeper insight into their individual and collective contributions. Further information about the ENGIE Group can be found in our Universal Registration Document 2022.

The Report covers the sustainability approach, priorities, activities, performance and achievements of our regional operations during the reporting year and covers the geographical scope of, GCC and Pakistan, India, North and South Africa, Southeast Asia and Australia, in particular within the following countries: Australia, Bahrain, Egypt, India, Indonesia, Kuwait, Malaysia, Mongolia, Morocco, New Zealand, Oman, Pakistan, Qatar, Saudi Arabia, Senegal, Singapore, South Africa, United Arab Emirates

The Report does not include the activities or performance of our suppliers, contractors or partners, unless otherwise stated.

## REPORT CONTENT

The content of the Sustainability Report covers the areas that we consider vital to our business and stakeholders and are aligned to People, Planet and Profit. We are enhancing our strategy to address our most material issues and support sustainable growth. We take a precautionary approach to all decisions and specially for meeting our commitments to managing environmental and social impacts and risks. We are proactive in our risk management strategies concerning climate change and the environmental and social impact of our activities along our value chain. For assets where we are a minority shareholder, we work closely with our partners to identify the best ways to manage our impact and reduce our negative footprint.

## EXTERNAL ASSURANCE

We did not commission independent assurance of our Regional Sustainability Report. The content of the report is to the best of our knowledge and abilities accurate and correct and key data has been validated through external audits at Group Levels which form part of the Universal registration documents. We invest in our systems, policies, procedures, risk management and strategy in order to capture more accurately and extensively information to further leverage sustainability reporting.



We apply the reporting principles Accuracy, Balance, Clarity, Comparability, Completeness, Sustainability context, Timeliness and Verifiability to ensure the quality and proper presentation of the information disclosed in the Sustainability Report.

## SUPPORT

The Sustainability Report has been developed with the support of Sustainability Knowledge Group (www.sustainabilityknowledgegroup.com).

## INFORMATION ABOUT ENGIE IS AVAILABLE ONLINE

- 2022 Management report and Annual Consolidated Financial Statements: https://www.engie.com/sites/default/files/assets/documents/2023-02/ENGIE_2022%20Management%20report%20and%20annual%20consolidated%20financial%20statements.pdf
- Universal Registration Document 2022: https://www.engie.com/sites/default/files/assets/documents/2023-03/ENGIE_URD2022_VA_MEL.pdf
- Policies and procedures: https://www.engie.com/en/group/ethics-and-compliance/policies-and-procedures

## YOUR FEEDBACK IS IMPORTANT TO US

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# GRI CONTENT INDEX

| | | | | | | |
|---|---|---|---|---|---|---|
| Statement of use | ENGIE AMEA has reported in accordance with the GRI Standards for the period from 1 January 2022 to 31 December 2022 | | | | | |
| **GRI 1 used** | **GRI 1: Foundation 2021** | | | | | |
| Applicable GRI Sector Standard(s) | Not applicable | | | | | |
| **GRI STANDARD/ OTHER SOURCE** | **DISCLOSURE** | **LOCATION** | **OMISSION** | | | **GRI SECTOR STANDARD REF. NO.** |
| | | | **REQUIREMENT(S) OMITTED** | **REASON** | **EXPLANATION** | |
| **General disclosures** | | | | | | |
| GRI 2: General Disclosures 2021 | 2-1 Organizational details | 23, 156, 157 | | | | |
| | 2-2 Entities included in the organization's sustainability reporting | 156, 157 | | | | |
| | 2-3 Reporting period, frequency and contact point | 156, 157 | | | | |
| | 2-4 Restatements of information | 149 | | | | |
| | 2-5 External assurance | 156 | | | | |
| | 2-6 Activities, value chain and other business relationships | 23-25, 28-75, 85-87 | | | | |
| | 2-7 Employees | 117, 152 | | | | |
| | 2-8 Workers who are not employees | - | 2-8 a.<br>2-8 b.<br>2-8 c. | Information unavailable | ENGIE is currently developing the mechanisms to better monitor contracted employees | |
| | 2-9 Governance structure and composition | 78-79<br>UNIVERSAL REGISTRATION DOCUMENT 2022 pg. 152, 175-180 | | | | |
| | 2-10 Nomination and selection of the highest governance body | UNIVERSAL REGISTRATION DOCUMENT 2022 pg. 179 | | | | |
| | 2-11 Chair of the highest governance body | 78<br>UNIVERSAL REGISTRATION DOCUMENT 2022 pg.152, 168 | | | | |
| | 2-12 Role of the highest governance body in overseeing the management of impacts | 78-81 | | | | |
| | 2-13 Delegation of responsibility for managing impacts | 78, 79<br>UNIVERSAL REGISTRATION DOCUMENT 2022 pg. 60, 61 | | | | |
| | 2-14 Role of the highest governance body in sustainability reporting | UNIVERSAL REGISTRATION DOCUMENT 2022 pg. 66 | | | | |
| | 2-15 Conflicts of interest | 84<br>UNIVERSAL REGISTRATION DOCUMENT 2022 pg. 133, 168 | | | | |
| | 2-16 Communication of critical concerns | 84<br>UNIVERSAL REGISTRATION DOCUMENT 2022 pg.133, 140 | | | | |
| | 2-17 Collective knowledge of the highest governance body | UNIVERSAL REGISTRATION DOCUMENT 2022 pg. 141, 175 | | | | |
| | 2-18 Evaluation of the performance of the highest governance body | UNIVERSAL REGISTRATION DOCUMENT 2022 pg. 171, 181 | | | | |



| GRI STANDARD/ OTHER SOURCE | DISCLOSURE | LOCATION | OMISSION | | | GRI SECTOR STANDARD REF. NO. |
|---|---|---|---|---|---|---|
| | | | REQUIREMENT(S) OMITTED | REASON | EXPLANATION | |
| GRI 2: General Disclosures 2021 | 2-21 Annual total compensation ratio | UNIVERSAL REGISTRATION DOCUMENT 2022 pg.190 | | | | |
| | 2-22 Statement on sustainable development strategy | 4, 5, 22 | | | | |
| | 2-23 Policy commitments | 80-85<br>UNIVERSAL REGISTRATION DOCUMENT 2022 pg.98, 132-134 | | | | |
| | 2-24 Embedding policy commitments | 80-85<br>UNIVERSAL REGISTRATION DOCUMENT 2022 pg.98, 132-134 | | | | |
| | 2-25 Processes to remediate negative impacts | 84, 94, 95, 98-101, 103-109, 125, 126, 139, 140 | | | | |
| | 2-26 Mechanisms for seeking advice and raising concerns | 84<br>UNIVERSAL REGISTRATION DOCUMENT 2022 pg.133 | | | | |
| | 2-27 Compliance with laws and regulations | 84<br>UNIVERSAL REGISTRATION DOCUMENT 2022 pg. 95, 126, 127, 168, 357, 361, 376, 412, 413 | | | | |
| | 2-28 Membership associations | 18 | | | | |
| | 2-29 Approach to stakeholder engagement | 12-15 | | | | |
| | 2-30 Collective bargaining agreements | UNIVERSAL REGISTRATION DOCUMENT 2022 pg. 114 | | | | |
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| **Economic performance** | | | | | | |
| GRI 3: Material Topics 2021 | 3-3 Management of material topics | 11, 27 | | | | |
| GRI 201: Economic Performance 2016 | 201-1 Direct economic value generated and distributed | 148 | | | | |
| | 201-2 Financial implications and other risks and opportunities due to climate change | 94-96 | | | | |
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| GRI 3: Material Topics 2021 | 3-3 Management of material topics | 84 | | | | |
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| GRI 3: Material Topics 2021 | 3-3 Management of material topics | 28-67 | | | | |

| GRI STANDARD/ OTHER SOURCE | DISCLOSURE | LOCATION | OMISSION | | | GRI SECTOR STANDARD REF. NO. |
|---|---|---|---|---|---|---|
| | | | REQUIREMENT(S) OMITTED | REASON | EXPLANATION | |
| GRI 302: Energy 2016 | 302-1 Energy consumption within the organization | 150 | | | | |
| | 302-2 Energy consumption outside of the organization | 149 | | | | |
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| | 302-5 Reductions in energy requirements of products and services | 54-56 | | | | |
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| GRI 303: Water and Effluents 2018 | 303-1 Interactions with water as a shared resource | 44-47, 104, 105 | | | | |
| | 303-2 Management of water discharge-related impacts | 64, 65, 104, 105 | | | | |
| | 303-3 Water withdrawal | 151 | | | | |
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| GRI 304: Biodiversity 2016 | 304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas | 107, 108 | | | | |
| | 304-2 Significant impacts of activities, products and services on biodiversity | 107 | | | | |
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| GRI 305: Emissions 2016 | 305-1 Direct (Scope 1) GHG emissions | 150 | | | | |
| | 305-2 Energy indirect (Scope 2) GHG emissions | 150 | | | | |
| | 305-3 Other indirect (Scope 3) GHG emissions | 150 | | | | |
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| **Employment** | | | | | | |
| GRI 3: Material Topics 2021 | 3-3 Management of material topics | 117-119 | | | | |
| GRI 401: Employment 2016 | 401-1 New employee hires and employee turnover | 152 | | | | |
| **Occupational health and safety** | | | | | | |
| GRI 3: Material Topics 2021 | 3-3 Management of material topics | 114-116 | | | | |



| GRI STANDARD/ OTHER SOURCE | DISCLOSURE | LOCATION | OMISSION | | | GRI SECTOR STANDARD REF. NO. |
|---|---|---|---|---|---|---|
| | | | REQUIREMENT(S) OMITTED | REASON | EXPLANATION | |
| GRI 403: Occupational Health and Safety 2018 | 403-1 Occupational health and safety management system | 114 | | | | |
| | 403-3 Occupational health services | 115 | | | | |
| | 403-4 Worker participation, consultation, and communication on occupational health and safety | 115 | | | | |
| | 403-5 Worker training on occupational health and safety | 114, 115 | | | | |
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| | 403-9 Work-related injuries | 153 | | | | |
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| **Non-discrimination** | | | | | | |
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## TOPICS IN THE APPLICABLE GRI SECTOR STANDARDS DETERMINED AS NOT MATERIAL

| TOPIC | EXPLANATION |
|---|---|
| Not applicable | |
| Not applicable | Not applicable |

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