ENEC
الإمارات للطاقة النووية

SUSTAINABILITY REPORT 2023

ENEC
الإمارات للطاقة النووية

ABOUT THIS REPORT

GRI 2021: 2-1, 2-2, 2-3, 2-5

We are delighted to publish the annual sustainability report for 2023 as an expression of our commitment to economic, social and environmental responsibility. This report is designed to provide a comprehensive update on ENEC's progress in these areas in 2023.

This report offers its internal and external stakeholders a thorough overview of the performance summary for 2023 across our governance structure and sustainability pillars: Economic, Environmental, and Social. The report covers the activities of the Barakah Nuclear Energy Plant, which is managed by the Emirates Nuclear Energy Company (known previously as Emirates Nuclear Energy Corporation). ENEC has two subsidiaries ENEC Operations (known previously as Nawah Energy Company) – mandated to operate and maintain the Barakah Plant; ENEC Commercial (known previously as Barakah One Company), responsible for managing the financial aspects of the program.

Reporting Standards

This report has been prepared in accordance with the GRI Reporting Initiative (GRI) Sustainability Reporting Standards, incorporating the Abu Dhabi Securities Exchange's (ADX) 31 Key Performance Indicators. Additionally, this report articulates our firm commitment to the 17 United Nations (UN) Sustainable Development Goals (SDGs).

Please refer to Appendix C to view the GRI content index and Appendix E for GCC ESG Metrics.

Reporting Period

The data covered in this report incorporates details of initiatives, programmes and achievements to demonstrate the progress on economic, environmental, social, and governance activities between 01 January 2023 and 31 December 2023.

For questions or comments regarding this report and the sustainability program, please visit www.enec.gov.ae or contact environment@enec.ae.

Disclaimer

This report contains commitment statements and reflects management's reasonable and current expectations. No assurance can be given that such expectations will prove correct. Such statements are subject to risks and uncertainties and should not be relied upon due to ever-changing future events that could materially change the outcome. This document has not been subject to review by an independent third-party assurance provided

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MESSAGE FROM
THE MD & CEO

In the Year of Sustainability for the UAE, we are proud to take the UAE Peaceful Nuclear Energy Program another step forward with Unit 3 beginning commercial operations. With three Units now operating commercially, we are delivering energy security, powering sustainable economic growth, driving innovation and contributing to achieve our Net Zero strategy by 2050.

– H.E. Mohamed Al Hammadi
Managing Director and Chief Executive Officer (ENEC)

As we celebrate the UAE's "Year of Sustainability," I am immensely proud of the strides we have made at ENEC. The year 2023 marks a pivotal moment in our journey, with the Barakah Nuclear Energy Plant's Unit 3 beginning commercial operations, just a year after Unit 2. With Unit 4 on the horizon, we are on track to achieve our mission of generating 25% of the nation's electricity, accelerating the UAE's journey towards Net Zero emissions. These milestones not only strengthen our energy security but also position Barakah as a global benchmark for nations seeking to diversify their energy portfolios amid international energy challenges.

The Barakah Plant now stands as the largest source of dispatchable clean electricity in the MENA region, significantly contributing to the UAE's Net Zero strategy by 2050. With three units now operational, we are delivering reliable, efficient, and sustainable electricity around the clock, ensuring the resilience of our national grid and reducing carbon emissions by millions of tons annually.

Our achievements extend beyond environmental impact. Through initiatives like the ADVANCE program and strategic partnerships, we are driving innovation, fostering local economic growth, and creating job opportunities. The launch of WiN Middle East exemplifies our commitment to inclusivity, empowering women to lead in the nuclear sector and shaping the future of nuclear science and technology in the region.

Barakah's success and ENEC's proactive role have positioned the UAE as a leader in nuclear energy. At COP28 in Dubai, ENEC effectively advocated for the "Triple Nuclear Declaration," encouraging nations to recognize nuclear energy as a critical pathway to achieving their climate and energy goals. As the first nuclear energy plant in the Arab World to start construction in 2012, Barakah has set a global standard for excellence in project management and cost efficiency.

The groundbreaking achievements at ENEC are the result of Emirati expertise and international collaboration. I extend my deepest gratitude to our teams and stakeholders for their relentless dedication. Together, we are building a sustainable future, demonstrating the transformative power of nuclear energy, and inspiring a new generation of climate champions.

Our commitment to sustainability is ever-evolving as we strive to enhance our ESG strategy, balancing energy security, financial performance, governance, and environmental stewardship. It is with great pride that I present the 2023 edition of our Sustainability Report, a testament to our ongoing efforts. Thank you for your continued support and commitment to our shared vision.

– H.E. Mohamed Al Hammadi
Managing Director and Chief Executive Officer (ENEC)

01 YEAR OF SUSTAINABILITY 2023 AT ENEC

Operate with Excellence

In the Year of Sustainability the UAE takes a significant leap towards Net Zero 2050 as Unit 3 of Barakah Nuclear Energy Plant starts commercial operations.

Supply Chain

Local Suppliers Engaged

51.9%

local registered suppliers

Local Procurement Spending

68.4% of total spend

Safe Operations

Barakah Plant WANO KPIs performance for the year 2023

Excellent

Lost Time Injury Frequency Rate (LTIFR)

0.35

Total Recordable Case Frequency Rate (TRCFR)

1.93

Protecting the Environment

The Barakah Plant provides significant environmental benefits for the nation today, and for the next 60 years and beyond.

Decarbonization

GHG Emissions Intensity

5.23 MTCO2eq./person

GHG Emission Offset

11,132,136 MTCO2eq.

Water

Water Intensity

103.45 m^3/person

Waste Water Recycled

88.70%

Energy

Energy Intensity

47.82 GJ/person

Waste

Hazardous Waste

149.53 metric tons

Non Hazardous Waste

7,586.76 metric tons

Growing with Our People

A powerhouse for the nation's development, energy security and stability, the Plant generates thousands of high-value jobs and stimulates billions of Dirhams of value for local companies.

Community Investments

2.1 (AED; Millions)

Women in Nuclear

Women in Management

6.59%

Women in workforce

17.17 %

Local Community Engagement

Emiratis in Workforce

52.54 %

Emiratis in Senior Management

68.13 %

Training and Development Hours

205,068 hours

KEY HIGHLIGHTS IN 2023

ADVANCE Program

The Emirates Nuclear Energy Company (ENEC) announced the launch of ADVANCE Program, a new program to harness the latest advancements in nuclear energy technologies. The program is provisioned to strengthen the UAE's position as a leading nation in delivering climate action by accelerating the global clean energy transition to Net Zero.

Various MOU's were signed to support development of innovative technologies and accelerate clean energy transitions.

ADVANCE Program

NET ZERO NUCLEAR

World Nuclear Association (WNA) and the Emirates Nuclear Energy Company (ENEC), with the support of the Atoms4NetZero initiative launched by the International Atomic Energy Agency (IAEA), called for unprecedented collaboration between government, industry leaders and civil society to triple global nuclear capacity to achieve carbon neutrality by 2050.

The declaration was signed by 25 nations during COP 28, hosted in Dubai, UAE.

Net Zero Nuclear Initiative

UNIT 3 Commercially Operational

Marking the UAE's Year of Sustainability and increasing its contribution to achieving the nation's Net Zero by 2050 targets, the Emirates Nuclear Energy Company (ENEC) delivered the third unit of the Barakah Nuclear Energy Plant in three consecutive years, this major accomplishment adds a further **1,400 megawatts (MW) of zero-carbon emission electricity capacity,** boosting total production from Units 1, 2 and 3 of Barakah to up to **4,200 MW of baseload, reliable, clean electricity 24/7 to the grid.**

02

WHO WE ARE

Pioneering Sustainable Nuclear Energy for a Clean and Prosperous Future

2.1 ABOUT ENEC

GRI 2021: 2-1

The Barakah Nuclear Energy Plant is a milestone in our journey for sustainable development and energy security

The UAE Peaceful Nuclear Energy Program

The UAE released its nuclear energy policy back in 2008, followed by the formation of the UAE's independent regulator, the Federal Authority for Nuclear Regulation (FANR) and the Emirates Nuclear Energy Company (ENEC) in 2009. ENEC is responsible for delivering the UAE Peaceful Nuclear Energy Program and the development of the flagship Barakah Nuclear Energy Plant, located in the Al Dhafra Region of Abu Dhabi Emirate. The Barakah Plant consists of four APR1400 nuclear reactors, and is the first nuclear energy plant in the UAE and wider Arab World.

ENEC has two subsidiaries: ENEC Operations (licensed and registered as Nawah Energy Company), responsible for operating and maintaining the Plant,while ENEC Commercial (licensed and registered as Barakah One Company) is responsible for the commercial and financial aspects.

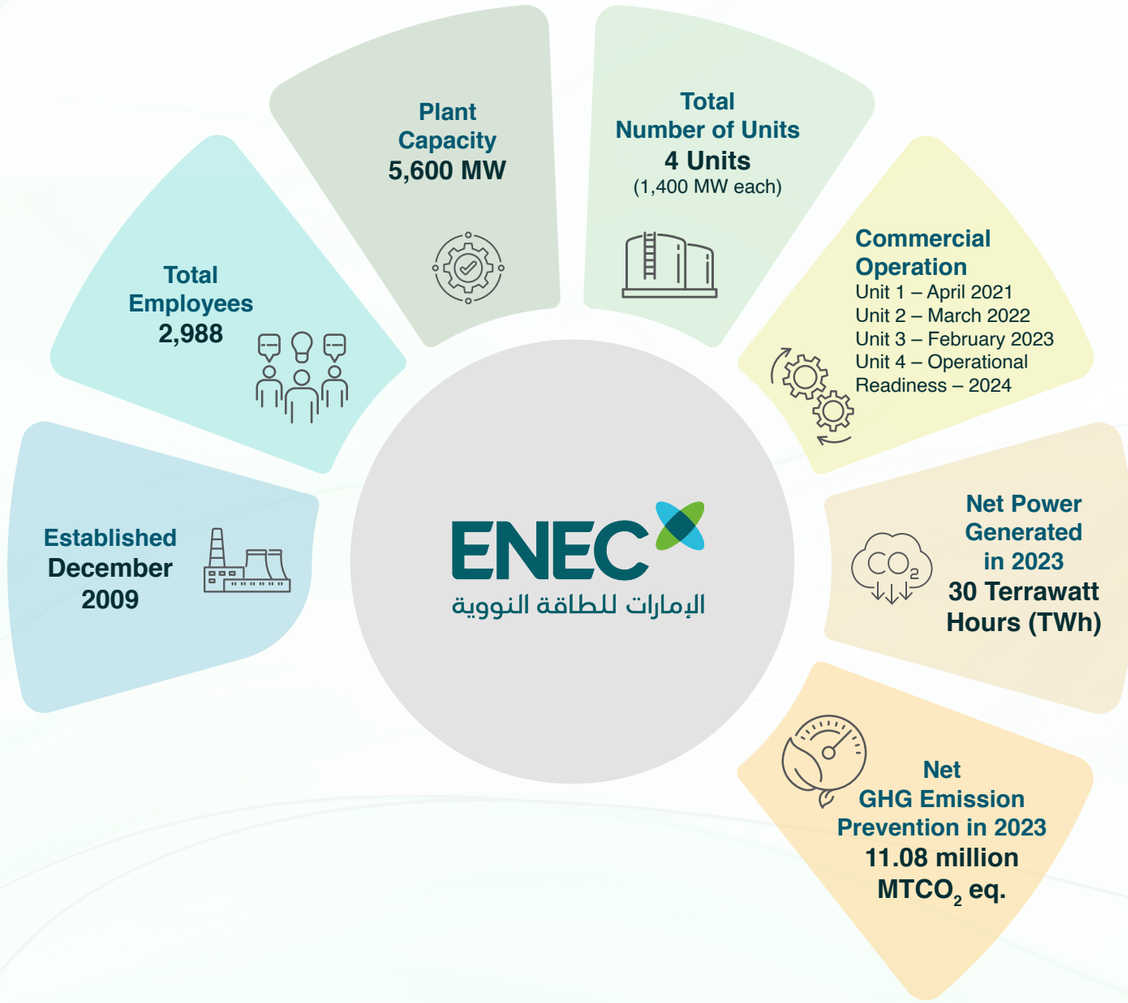
ENEC has made significant progress in the delivery of the UAE Peaceful Nuclear Energy Program. As of today, three units at the Barakah Plant are operating commercially, with the 4th Unit now online and set to commence commercial operations later in 2024. **The Plant will generate 40TW annually, providing 25% of the UAE's electricity needs, reducing around 22.4 million tons of carbon emissions annually, which is equivalent to removing 4.8 million cars off the road every year.**

The Barakah Plant features a diverse team of international experts from over 50 nationalities working with UAE Nationals, all committed to the production of clean electricity at the Barakah Plant. The plant is integral to the UAE's efforts to meet its growing electricity demands and achieving Net Zero by 2050. With four units online, ENEC is now advancing its plans to realize the full value of the UAE Program for the Nation. It is currently studying opportunities to invest in, develop and collaborate on nuclear energy projects in the UAE and overseas. Furthermore, ENEC envisions becoming a clean molecules produce in addition to electrons and heat, to rapidly decarbonize heavy industry. ENEC welcomes opportunities to partner with other nations to drive the tripling of global nuclear energy capacity by 2050 to meet Net Zero targets.

About ENEC

https://www.enec.gov.ae/about-us/overview/

Overview



Our Vision

Powering the growth of the UAE

Our Mission

Ensure a safe and sustainable peaceful nuclear energy program

Our Values

Our vision and mission are guided by our commitment to the six corporate values of Accountability, Teamwork, Safety, Integrity, Trust, and Excellence.

ATSITE

Accountability

Responsibility and authority are well-defined and clearly understood, and people take ownership for their work, delivering high quality results in a timely manner as efficiently as possible.

Teamwork

Individual and teams communicate and coordinate their activites within and across organizational boundaries, demonstrating a strong sense of collaboration and cooperation in connection with projects and operational activites.

Excellence

We actively pursue excellence thorugh the continues performance improvement of our projects, programs, and processes, which drives greater effectiveness and efficiency in pursuit of outstanding and sustainbale results.

Safety

Safety is the overriding priority at ENEC. We design and execute world-class safety and security processes and systems that ensu re the safety of the public, ENEC empolyees and the environment.

Trust

We build trust through adhering to nuclear standards, living our values, fulfilling our commitments, and promoting open and fact-based communications with our colleagues, our stakholders, and the general public.

Integrity

We listen to and respect the opinions, expertise, and traditions of others. We are accountable for our work, our business, and our actions. We do not tolerate discrimination or harassment.

2.2 GROUP STRUCTURE

GRI 2021: 2-6

Emirates Nuclear Energy Company

In December 2009, ENEC was founded with an objective of delivering the UAE Peaceful Nuclear Energy Program and laying the foundation for the nation's nuclear endeavours, epitomized by the Barakah Plant, which is the Arab World's first nuclear energy plant.

In 2009, KEPCO, South Korea's single largest public power electric utility, secured the prime contract for design, construction, and operation of the four reactors at the Barakah Plant. KEPCO's selection followed an exhaustive year-long assessment conducted by 75 international experts, evaluating diverse criteria such as safety, feasibility, and dedication to human resource advancement. The contract encompassed comprehensive training, human resource development, and educational initiatives, to support the UAE's endeavours to cultivate a proficient workforce for a thriving nuclear energy industry.

The Barakah Plant serves as a cornerstone of the UAE's vision for fostering sustainable growth and steering towards a future with a more diversified, cleaner energy portfolio for meeting our nation's energy needs. Through the development of the Barakah Plant, we are offering 24/7 clean electricity to fulfil domestic energy requirements while creating esteemed career opportunities for UAE Nationals. This initiative serves as a catalyst for nurturing a cutting-edge local nuclear industry, thus fortifying the UAE's sustainable economic trajectory and environmental conservation efforts. The Barakah Plant is pivotal in realizing the UAE's Net Zero objectives by 2050. Furthermore, it represents just the beginning of the UAE Peaceful Nuclear Energy Program, with ENEC spearheading efforts to draw in new investments and cutting-edge technologies, thus enhancing the role of nuclear energy within the nation.

ENEC Prime Contractor
https://www.enec.gov.ae/barakah-plant/prime-contractor/

Our Business Subsidiaries

GRI 2-1, 2-6, 2-9

In October 2016, ENEC signed a Joint Venture agreement with KEPCO, launching the Nawah Energy Company (now ENEC Operations) and Barakah One Company (now ENEC Commercial). Through the JV, KEPCO became a minority shareholder of Nawah and Barakah One Company, holding 18 percent in each subsidiary, while ENEC maintains the majority share of 82 percent in each subsidiary.

ENEC Operations

ENEC Operations (known previously Nawah Energy Company), a subsidiary of ENEC and partially owned by the Korea Electric Power Corporation (KEPCO), has been entrusted with the safe operation and maintenance of Units 1 to 4 at the Barakah Plant. It is an Emirati-led, multinational, and culturally diverse entity dedicated to operational excellence. ENEC Operations prioritizes the development of future nuclear energy leaders and upholding the highest standards of efficiency in operating the Barakah Plant. Unit 1 of the Barakah Plant commenced commercial operations in 2021, followed by Unit 2 in 2022 and Unit 3 in 2023 with Unit 4 set to commence commercial operations in 2024.

ENEC Commercial

ENEC Commercial (known previously Barakah One Company), a subsidiary formed through a Joint Venture between the Emirates Nuclear Energy Company (ENEC) and partially owned by the Korea Electric Power Corporation (KEPCO), assumes responsibility for overseeing the financial and commercial aspects of the Barakah Plant. ENEC Commercial is tasked with ensuring that ENEC and KEPCO adhere to the highest standards of quality, safety, and sustainability throughout all contracts, including the Prime Contract.

Additionally, in October 2016, ENEC Commercial and the Abu Dhabi Water and Electricity Company (ADWEC), now known as the Emirates Water and Electricity Company (EWEC), announced a Power Purchase Agreement (PPA) outlining the price-per-kilowatt structure for electricity generated by Barakah Plant Units 1 to 4. This agreement marks a significant commercial milestone for the project, establishing the price at which electricity from the Barakah Plant is produced and sold to the grid. With ENEC Commercial overseeing the commercial interests of the Barakah Plant, ENEC, ENEC Operations, and KEPCO persist in delivering the program in a safe, efficient, and commercially viable manner.

2.3 THE BARAKAH PLANT

GRI 2-6

Overview

The fourth and final unit at the Barakah Nuclear Energy Plant in Abu Dhabi, UAE, has begun its operational readiness preparations. The operations team at Barakah have now commenced the operational readiness testing required to demonstrate the unit is ready to receive the Operating License from the UAE's independent nuclear regulator; the Federal Authority for Nuclear Regulation (FANR).Unit 4 will now undergo national and international pre-operational assessments in preparation for receipt of Operating License and Fuel Load.

The lessons learnt from the previous three units have been effectively applied to the next unit, ensuring the swift and safe transition to operational readiness, with each unit passing through the phases of preparation in a more efficient manner while maintaining the same standards of quality and safety. The three commercially operating Units at Barakah, delivered in three consecutive years, are already generating more than 30TWh of zero-emission electricity all year round.

Operating and Regulatory Licenses

We are committed to upholding the highest standards of quality and transparency throughout the operations of the Barakah Plant. All our activities are conducted under the regulations of the Federal Authority for Nuclear Regulation (FANR), with strict oversight from the Nuclear Safety Review Board (NSRB). In addition, senior nuclear experts from the International Atomic Energy Agency (IAEA) and the World Association of Nuclear Operators (WANO) continuously carry out independent evaluations to assess the robustness of the UAE Peaceful Nuclear Energy Program.

In June 2022, Nawah Energy Company (now known as ENEC Operations) was granted an operating license by the Federal Authority for Nuclear Regulation (FANR), allowing for the safe commencement of fuel loading into Barakah Plant Unit 3. This milestone followed a thorough series of inspections and an extensive review of the Operating License Application (OLA) document. Since 2009, the UAE Peaceful Nuclear Energy Program has undergone over 470 inspections conducted by FANR, with additional independent assessments by WANO and IAEA. These rigorous evaluations ensure adherence to the highest international standards throughout the development and implementation of the UAE's nuclear energy program. Notably, the Barakah Plant, the first commercial nuclear facility in the Arab World, successfully received the Operating License for the fourth and final unit in November 2023. The operating license enabled Nawah Energy Company (now known as ENEC Operations) to proceed with commissioning and commercial operation of the unit, contributing to the UAE's vision for nuclear energy. Additionally, on December 17, 2023, Unit 4 safely completed its fuel load process.

Memberships

GRI 2021: 2-28

03

EMBEDDING SUSTAINABILITY INTO THE ORGANIZATION

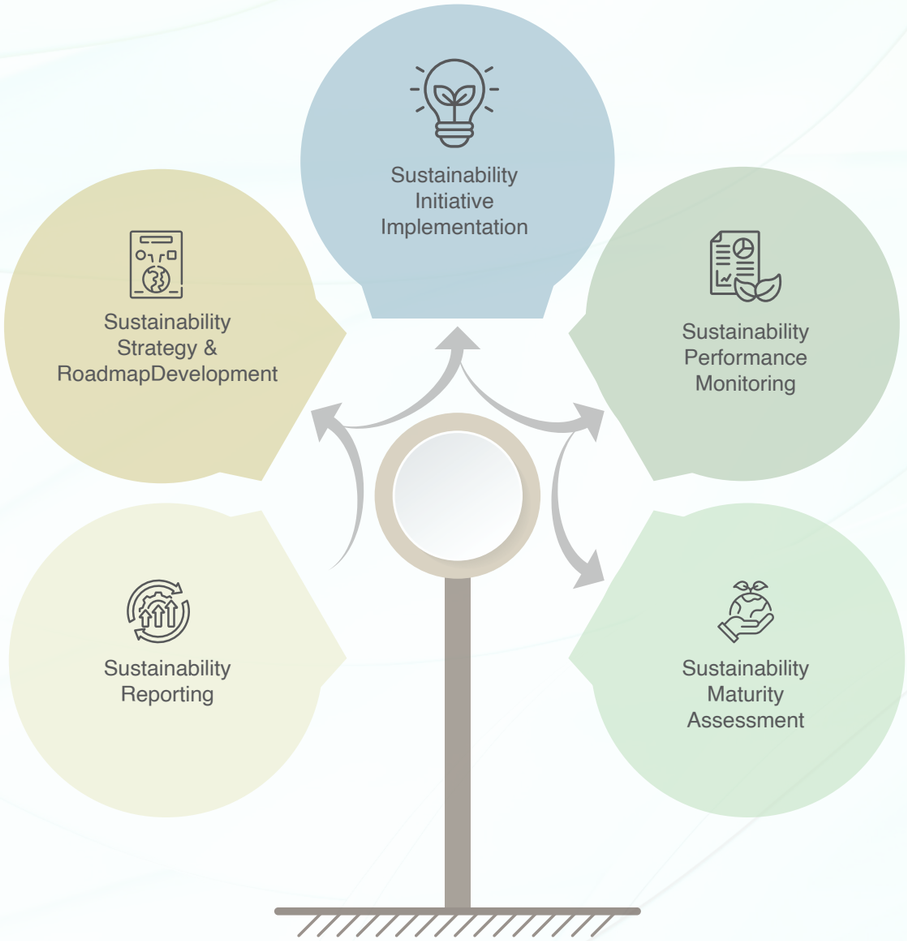
Commitment to fostering effective governance, resilient operations, and sustainable economic growth

3.1 STRATEGIC OUTLOOK

The Barakah plant's progress in all facets of design, construction and operation is an exemplary demonstration of ENEC's commitment to sustainability. As Unit 3 of the plant comes into operations and the 4th and final unit is prepared for operational readiness, ENEC proudly offers the world a success story inspiring young generation of climate change champions and accelerating the UAE's decarbonisation towards the goal of Net Zero emissions by 2050.

ENEC and its affiliated companies demonstrate strong commitment to sustainability. The Barakah Plant is the region's largest decarbonisation project which has significantly advanced the UAE's vision for sustainable development, economic diversification and energy security.

To achieve ENEC's sustainability stewardship, we have adopted an approach that seamlessly integrates stakeholder engagement, materiality and maturity analysis.



Strategy 2022-2026

As the Barakah Plant concludes the transition from construction to operations, shifting priorities are guiding its direction and strategy development process. To position the Program among the most advanced peaceful nuclear energy programs worldwide, we are focused on establishing and managing the adoption of safe practices, state-of-the-art technologies, and integrating guidelines from IAEA, INPO, and WANO.

The Strategy Department is responsible for providing guidance and direction to the business, focusing on key milestones and activities to achieve its objectives in the most efficient and effective manner.

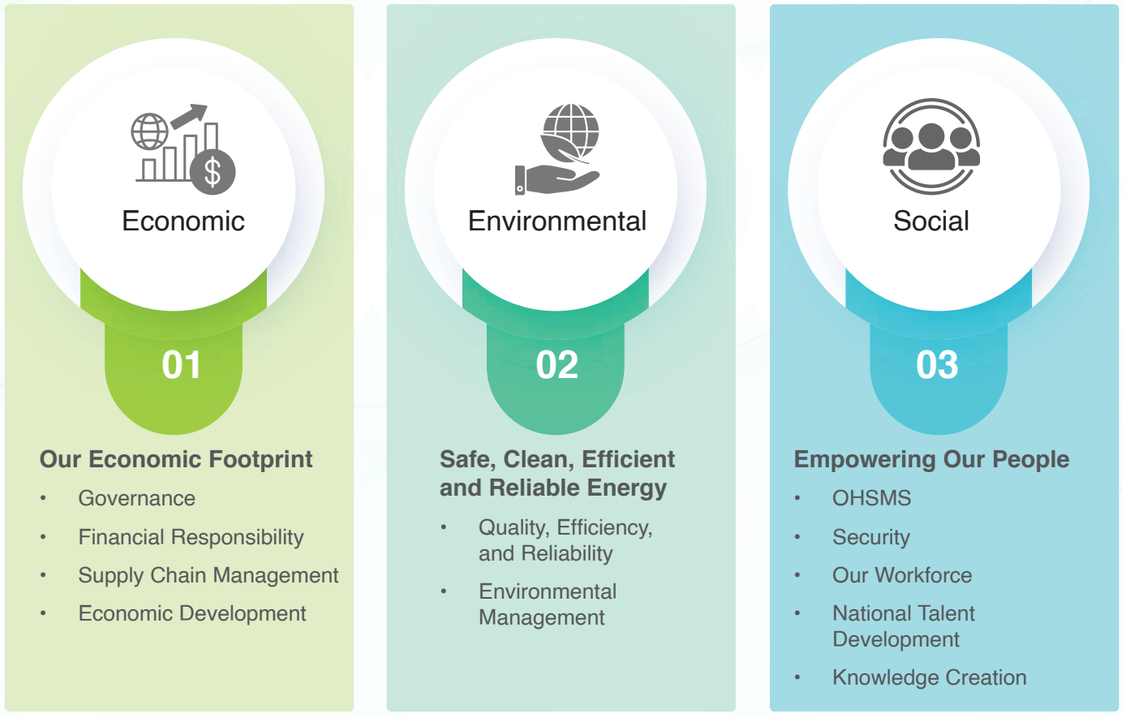
During the development of the Strategy for 2022-2026, key drivers were considered, including internal and external forces that shape the organization's strategy and outlook during distinct phases of its evolution. We are committed to continuously developing into a nuclear excellence and human performance-based entity.

Led by the strategy drivers and following the strategy management framework, the strategy was updated for the years 2022-2026.

Sustainability Management

Sustainability forms the foundation of our core principles, clearly manifested in our vision, mission, and values. To uphold this commitment, we have established a comprehensive Sustainability, ESG Strategy, and management program aligning with international benchmarks such as the UN SDGs, the GRI Sustainability Reporting Standards, and ADX ESG Disclosure Guidance, along with the national vision stated in the Abu Dhabi Economic Vision 2030 and the UAE Energy Strategy 2050. Our sustainability framework is built upon three essential pillars: ensuring the safe, clean, efficient, and reliable provision of energy to the UAE; driving economic growth by maximizing our economic contributions; and enhancing citizen well-being by empowering our people. Every aspect of sustainability and governance is meticulously addressed throughout the entire lifecycle of the nuclear energy plant, from construction to decommissioning, reaffirming our unwavering commitment to sustainability.

Sustainability Value Pillars



One of the themes of the Strategy 2022-2026 is 'Program Sustainability'. As the organization transitions from construction to producing 50% of the planned clean electricity with two operational units, it becomes paramount to sustain our ability to provide operations with the required materials and services, as well as developing an uninterrupted supply chain of suitably qualified and experienced personnel, operational spare parts, and consumables.

In addition to meeting our current operational needs, we must also plan for the future beyond the commercial operations of the four units. This includes exploring research and development opportunities to find technical solutions and enhancements that can help us maintain and extend the plant's lifespan. Achieving program sustainability will require a forward-looking approach that considers both present and future needs.

There are three objectives under the Program Sustainability theme:

1	Drive an integrated fuel cycle management and a fit - for - purpose R&D program:	Drive Program Sustainability through an integrated fuel cycle management and robust Research and Development (R&D) program.
2	Deliver a robust nuclear program supply chain for sustainable supply of materials and services:	Strengthen and enhance procurement, supply chain capability, and build robust material, equipment and services sourcing channels with critical and strategic suppliers and partners to assure the availability of the required supplies at the right time and cost.
3	Execute opportunities to support plant O&M, localization, and long-term program sustainability:	Establish the foundation for efficient and cost-effective operations, drive localization of critical supply chain parts, identify, and execute feasible future growth opportunities. All sustainable and most cost-efficient nuclear energy plants have localized supply chains and industries that can cater to the plant.

Sustainability Performance Management

We follow a Sustainability Performance Management Procedure to guide the implementation of our sustainability program. This procedure outlines the roles and responsibilities needed to achieve the following objectives:

- Establishing sustainability objectives, targets, and programs that align with our vision, mission, and strategic objectives.
- Monitoring and measuring the potential impacts of our activities, products, and services on sustainability and our stakeholders.
- Monitoring the performance of our sustainability initiatives.
- Ensuring compliance with our membership commitments to the Abu Dhabi Sustainability Group (ADSG).

To continually improve our sustainability performance, we have established clear and measurable objectives and targets monitor our progress, review our performance, and regularly report at all levels of our business.

Operational Efficiency

Performance Management Framework

The Performance Management Framework guides the organization towards achieving key milestones and objectives efficiently and effectively. By categorizing objectives under specific themes, it focuses the organization's attention, facilitating successful strategy execution. This strategy is articulated via strategic themes, underlying objectives, and supporting initiatives aimed at realizing desired outcomes in terms of people and culture.

The strategic performance dashboard presents the critical Strategic Indicators (SIs) results that measure the Organization's performance annually. The dashboard consists of three main pillars – Safety and Quality, Schedule, and Cost.

Despite the unique challenges presented by the evolving geopolitical and global economic landscape, the strategic performance results in 2022 met and/or exceeded targets on several indicators by a substantial margin.

> **Barakah has showcased a new model to the world for nuclear developments, presenting nuclear energy as a major force for decarbonization and grid stability in the UAE. The Plant is not only providing greater sustainability through clean electricity but is a catalyst for innovation in areas like clean hydrogen and development of new technologies that can take us closer to our target of Net Zero by 2050."**
>
> **– H.E. Mohamed Al Hammadi**
> *MD and CEO of ENEC*

Contribution to UN SDGs / Alignment to UN SDGs

The United Nations Sustainable Development Goals (SDGs) constitute a comprehensive framework of 17 interconnected goals encompassing social, economic, and environmental sustainability. These objectives aim to be accomplished by the year 2030.

These global goals are designed to create a better and more sustainable future for all through, among other issues, tackling climate change, ensuring access to clean water and affordable energy, and ending poverty.

Clean Energy plays a pivotal role in the pursuit to tackling climate change. At ENEC and its subsidiaries, we have aligned our sustainability strategy and program to help us monitor our progress towards the UN SDGs. Our efforts are crucial to the UAE's contribution to the UN SDGs, particularly in achieving SDG 7, which aims to promote affordable and clean energy. Once fully operational, the Barakah Plant will provide up to 25 percent of the UAE's total electricity needs.

Our sustainability pillars are aligned with the UN SDGs. More information on our contribution to the specific targets of each UN SDG is provided within the relevant chapters of this report.

Our Economic Footprint	• Governance • Financial Responsibility • Supply Chain Management • Economic Development • Combat Climate Change	
Safe, Clean, Efficient, and Reliable Energy	• Business Resilience • Environment Management System (EMS) • Quality, Efficiency, and Reliability	
Empowering our People	• Occupational Safety and Health Management System (OSHMS) • Security • Our Workforce • National Talent Development • Knowledge Creation	

3.2 MATERIALITY

GRI 2021: 3-1, 3-2

Materiality assessment forms a crucial part of our sustainability strategy and reporting. By engaging various stakeholders, internal and external organizations can better understand and address their concerns and expectations. Starting with the existing topics identified in 2021 – 2022, we undertook a comprehensive materiality assessment exercise to better reflect and understand the impact ENEC's activities and business relationships has or could have on the economy, environment, and society.

A systematic approach has been followed to identify the focus topics and update of the material matrix:

Questionnaire Development

A comprehensive questionnaire of 30 questions across ESG topics was developed using GRI sustainability reporting standards and covered various topics related to economic, social, and governance matters.

Online Survey

The survey was distributed online to collect input from stakeholders. The questions aimed to assess the perceived importance of various ESG topics, asking respondents to rate their significance on a scale of 1-10, to help ENEC prioritize and manage their ESG goals and commitments effectively.

Refreshing the existing list of Materiality Topics

The survey responses helped refresh the materiality list from the 2022 report. The inputs were analyzed to determine how the identified topics are interconnected and how they complement the existing materiality list. These topics were grouped based on the disclosures required as per GRI, ENEC's business perspective, ESG standards, and peer materiality matrices.

Prioritizing the Sustainability Issues

This prioritization was based on internal discussions with the management, stakeholder responses, alignment to national and international commitments and priorities including the UAE Energy Strategy 2050, Abu Dhabi Economic Vision 2030, ADX ESG Guideline, Paris Climate Agreement, and the UN's SDGs and the organization's sustainability strategies.

Selecting the Focus Topics

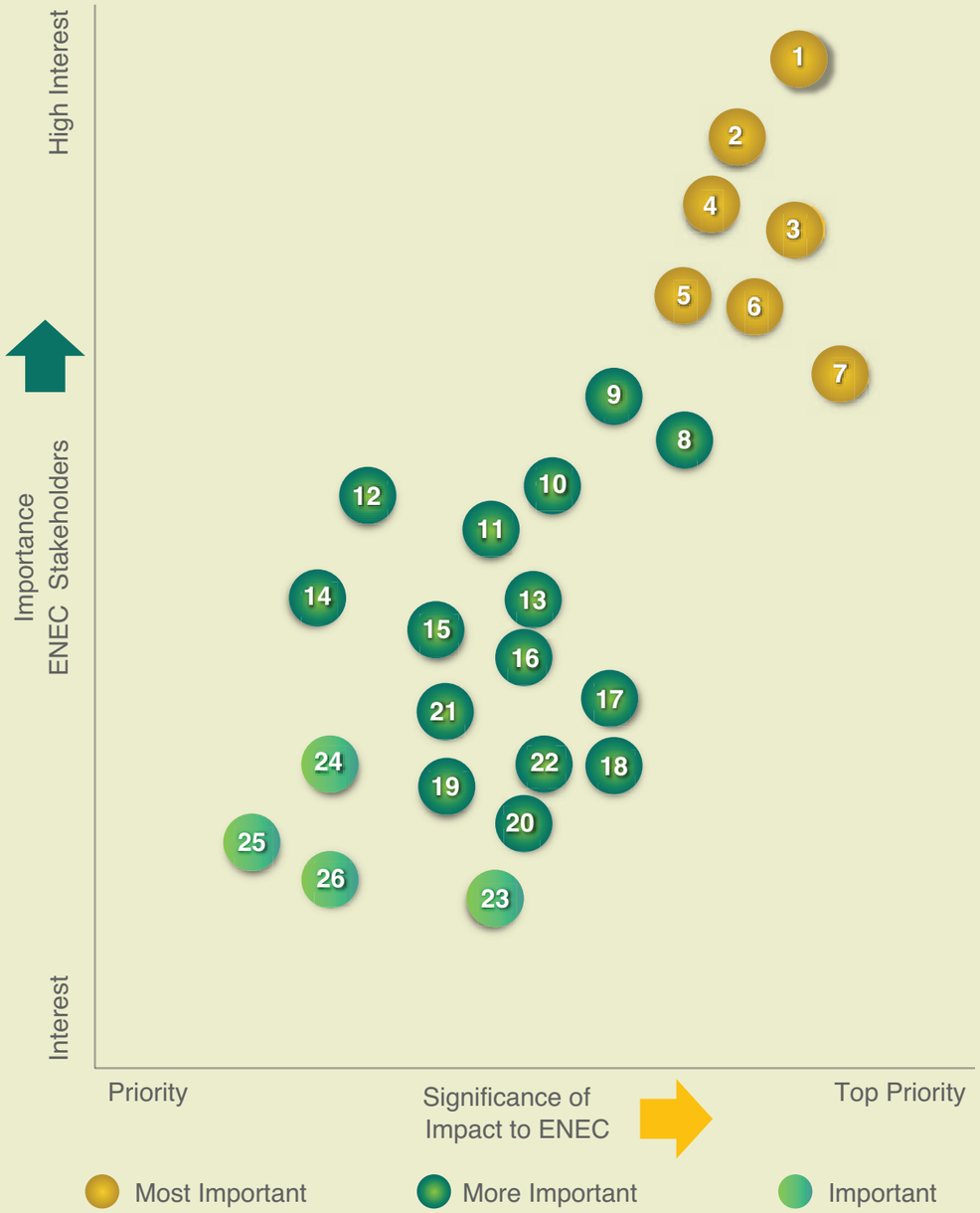
The selected topics were categorized under the 3 sustainability strategy pillars and were mapped to the respective GRI, ADSG disclosures and UN SDG goals.

#	UN SDG	ADX	GRI Disclosure	Description	Sustainability Value Pillar	Boundaries	Priority
1	-		3-3	Infrastructure Security[1]	Safe, Clean, Efficient and Reliable Energy	ENEC	Most Important
2		S7	403, 414	Workforce Health and Safety[2]	Empowering Our People	ENEC and Contractors	Most Important
3	-		2-27, 308	Regulatory and Framework Compliance - Environment and Sustainability	Our Economic Footprint	ENEC and Contractors	Most Important
4		E7	306	Radioactive Waste Management	Safe, Clean, Efficient and Reliable Energy	ENEC	Most Important
5		S8	403	Prevention from Nuclear Radiation – Workers and Public	Safe, Clean, Efficient and Reliable Energy	ENEC and Community	Most Important
6	-	E3	301, 302	Plant Operations[3]	Safe, Clean, Efficient and Reliable Energy	ENEC	Most Important
7	-	G6	418	Data protection library and strong firewall[4]	Our Economic Footprint	ENEC	Most Important
8	-			Research and Development	Our Economic Footprint	ENEC	More Important
9	-		404	State-of-the-art training and education for employees	Empowering Our People	ENEC	More Important
10	-	S3	401	Employee turnover rate	Empowering Our People	ENEC	More Important
11	-	S6	406	Non-Discrimination and Equal Opportunity	Empowering Our People	ENEC	More Important
12		S4	405	Diversity and Equal Opportunity	Empowering Our People	ENEC	More Important
13		S12	413	Local Communities	Empowering Our People	ENEC	More Important
14				Climate risk mitigation	Safe, Clean, Efficient and Reliable Energy	ENEC	More Important
15	-	E8	304	Environmental oversight	Safe, Clean, Efficient and Reliable Energy	ENEC and Contractors	More Important
16	-	G8	2-27	Environmental Compliance	Safe, Clean, Efficient and Reliable Energy	ENEC and Contractors	More Important
17		E1	305	Emissions	Safe, Clean, Efficient and Reliable Energy	ENEC and Contractors	More Important
18	-	G4	2-6	Supply Chain Assessment on ESG	Our Economic Footprint	ENEC and Contractors	More Important
19	-	G4	204	Procurement Practices	Our Economic Footprint	ENEC	More Important
20		G5	202, 205, 206	Market Presence, Anti-Corruption and Anti-Competitive Behavior	Our Economic Footprint	ENEC	More Important
21	-		201	Economic performance	Our Economic Footprint	ENEC	More Important
22		E4	302	Energy	Our Economic Footprint	ENEC	Important
23	-		403	Addressing the grievances for workforce and contractors	Empowering Our People	ENEC and Contractors	Important
24	-		203	Socio-Economic Compliance	Empowering Our People	ENEC	Important
25	-		203	Indirect Economic Impact	Empowering Our People	ENEC	Important
26	-	E6	303	Water and Effluents	Safe, Clean, Efficient and Reliable Energy	ENEC	Important

Notes

1 Material topic from 2022 - Infrastructural emergency preparedness, due to natural or man-made reasons - covered under Infrastructure Security
2 Material topic from 2022 - Healthy and Safe Work Environment - contractor and sub-contractors covered under workforce health and safety
3 Material topic from 2022 - Fuel Supply covered under plant operations
4 Material topic from 2022 - Customer Privacy covered under Data Privacy and Protection

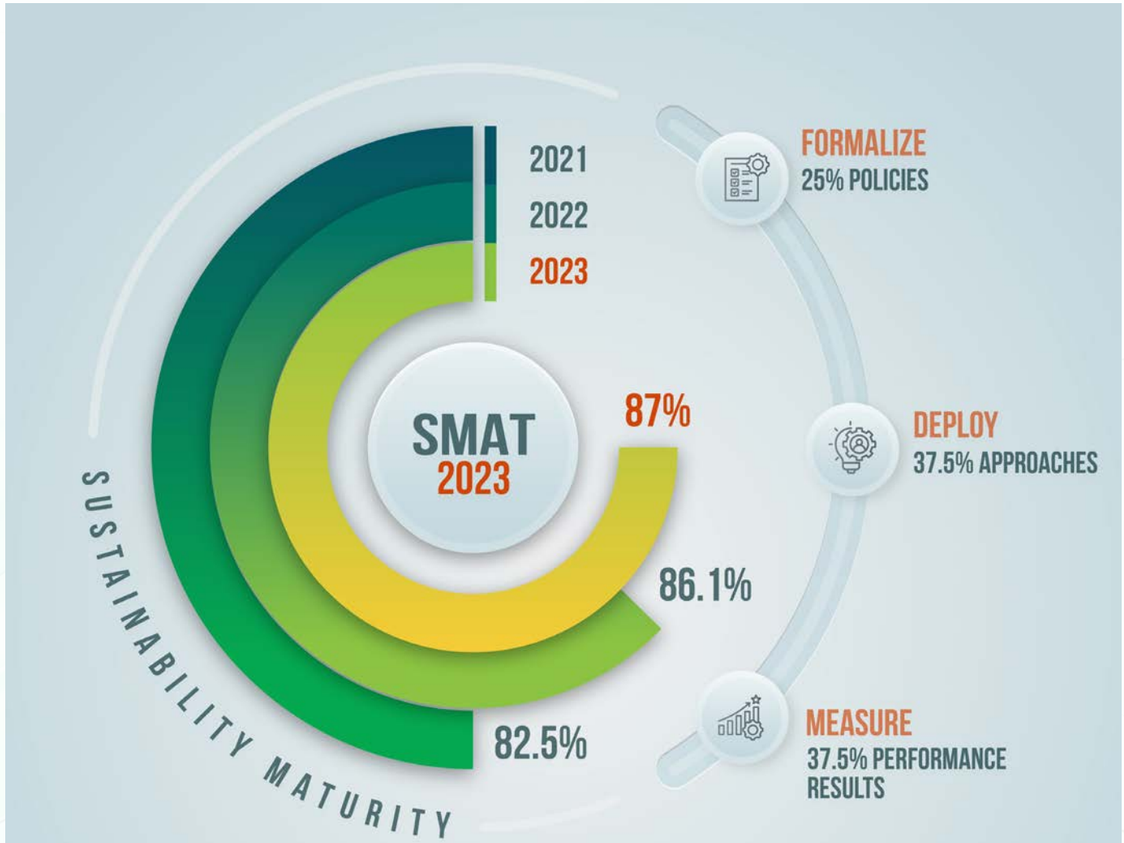
Material Matrix



Sustainability Maturity

We use the Sustainability Maturity Assessment Tool (SMAT), implemented by the ADSG and led by the Environment Agency of Abu Dhabi (EAD), to evaluate our sustainability management. This tool encompasses over 160 criteria that assess relevant sustainability policies, approaches, and performance across seven areas: management, owners, employees, suppliers, customers, community, and environment.

The results of the 2023 SMAT indicate that our sustainability program has consistently matured, with the maturity index increasing by 4.5% from 2021.



Management	Owners	Employees	Suppliers	Customers	Community	Environment
15%	10%	20%	10%	10%	15%	20%

3.3 STAKEHOLDER ENGAGEMENT

GRI 2021: 2-29

Local and international stakeholders are pivotal to the nuclear industry, ensuring diverse perspectives and robust support for sustainable operations. Effective engagement with these stakeholders fosters transparency, trust, and collaboration, essential for advancing nuclear projects. Maintaining strong relationships with stakeholders is crucial for achieving long-term success in the industry. Since ENEC is exploring investments in the nuclear sector, maintaining a good relationship with stakeholders will definitely support the evolution of ENEC's work as stakeholders have a crucial role in evolving businesses worldwide.

To keep them informed of our economic, environmental, social, and governance activities, we engage with stakeholders and listen to their feedback on what's important for our business. In 2023, we conducted several events, surveys, meetings, and focus groups to engage with our stakeholders directly. This allowed us to update them on our progress, strategic decisions, and priorities while gathering feedback and suggestions to improve as a responsible and sustainable business. This applies to our local and international stakeholders.

The yearly engagement plans are tailored around business needs and important projects of focus as per ENEC's annual strategy. It involves different international events planned throughout the year, local events with international participation, engagements with local and international embassies, organizing site visits for different levels of counterparts and the team's engagement with their focal points through frequent meetings.

The team takes into consideration any constructive feedback and puts together a plan to navigate through any miscommunication with any of its stakeholders, establish a strategy to enhance the engagement with the stakeholders and maintain a good connection with focal points.

Stakeholder Mapping

The Stakeholders are classified into three tiers based on the significance of their involvement with ENEC and/or ENEC's subsidiaries as described below:

Tier 1 (T-1) - Stakeholders are central to ENEC and its subsidiaries. Their non-involvement could significantly impact or halt the delivery or operation of the Barakah nuclear energy plant, or the UAE Peaceful Nuclear Energy Program.

Tier 2 (T-2) - Stakeholders are of importance to ENEC and its subsidiaries. Their lack of engagement could derive into delays of the delivery or operation of the Barakah nuclear energy plant, or reputational damage to ENEC and its subsidiaries, and the UAE Peaceful Nuclear Energy Program.

Tier 3 (T-3) - Stakeholders have certain significance to ENEC and its subsidiaries. They could influence some aspects of the delivery or operation of the Barakah nuclear energy plant, or some areas of the UAE Peaceful Nuclear Energy Program.

Please refer Appendix B for stakeholder mapping.

Stakeholders are categorized based on the nature of their mandate:

The External Stakeholders Working Group (ESWG)

The purpose of the ESWG is to improve and strengthen relationships with stakeholders by designating specific organizational responsibilities and contact points to facilitate better communication with them. This is intended to streamline communication channels and ensure more effective engagement with stakeholders.

The key objectives of the ESWG:

- Increase the executive team's awareness regarding key updates, issues, and support interactions with the strategic external stakeholders to enable effective decision-making.
- Ensure smooth coordination between the Organization and stakeholders.
- Align Organization's plans and staff in engagement and communication with stakeholders.
- Support the effective management of stakeholders to ensure that their expectations and interests are considered in the planning and implementation of policies and processes, to enhance stakeholder satisfaction and engagement while ensuring that our safety, security, quality, environmental and business objectives are not compromised.

International Stakeholders

International stakeholders are engaged through different activities such as international and local events, site visits, meetings and official business trips. Engaging with international stakeholders positions ENEC as the first civil nuclear strategic project in the nuclear industry in the region, builds ENEC's business beyond construction and operations, allowing ENEC to share knowledge and experiences with others alongside exploring business opportunities with other nations globally.

This is usually done through frequent meetings, annual international and local events, presidential joint committees, high-level meetings, surveys, calls and face-to-face meetings.

Outreach Program

The Outreach Program is designed to introduce and raise awareness about the UAE Peaceful Nuclear Energy Program across the UAE. This program is tailored to the needs of different societal groups and is designed to achieve the following goals:

As a part of this program a series of sessions were conducted (both physical and virtual) to spread awareness about UAE Peaceful Nuclear Energy Program for public.

Outreach sessions managed by the Stakeholder Relations department targeting students, public, government and private entities to be able to raise awareness about the program.

Success for the Outreach Program is measured through a combination of qualitative and quantitative metrics, including:

- **Stakeholder Engagement:** Tracking the level of participation and feedback from stakeholders in workshops, forums, and other outreach events.
- **Satisfaction Survey:** Assessing the efficacy of information during the sessions through the survey.

In 2023, **over 100 successful outreach sessions** were conducted for students and stakeholders, with **more than 4000 attendees**. Impressively, the overall satisfaction rate was **96.18%**, which reflects the effectiveness and impact of these engagements.

Stakeholder Satisfaction

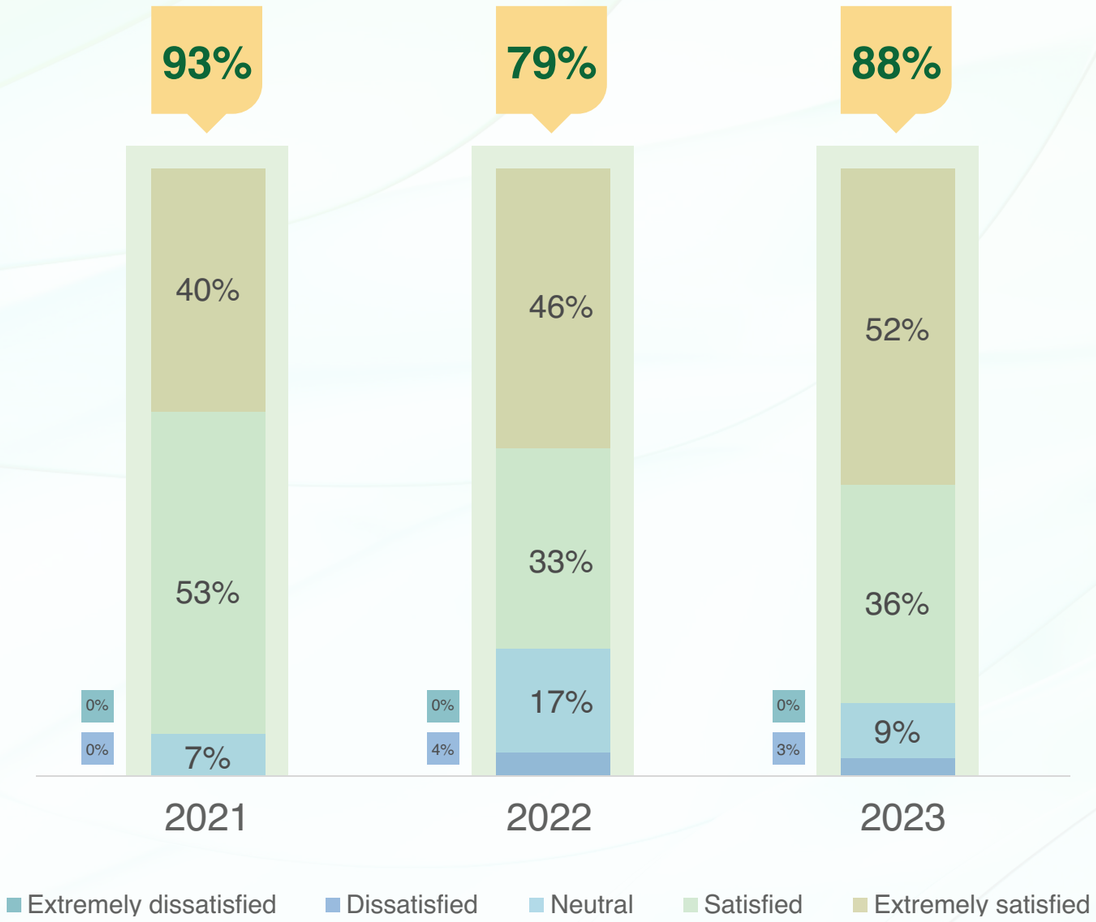
With an aim to assess external stakeholders' experience and enhance the quality of their interaction with our organization in the future, an annual survey is conducted through our Stakeholder Relations Function. As a part of our strategy, we gauge their experience and gather their feedback on specific areas that require improvement.

Stakeholder Satisfaction Survey

As part of our Strategy to maintain a strong relationship with external stakeholders, we conduct an annual survey through our Stakeholder Relations team to assess their experience with us. The purpose of this survey is to gauge the satisfaction level of our external stakeholders and gather feedback on specific areas that need improvement. The aim is to enhance their experience with us in the future.

There is a noticeable increase in the overall external stakeholder satisfaction rate from 79% in 2022 to 88% in 2023.

Satisfaction Levels for interactions with ENEC and its subsidiaries



Public Opinion Poll

The organization conducts an annual public opinion poll to gauge awareness, support, and perception about Nuclear energy and the UAE Peaceful Nuclear Energy Program.

The following are the results of a public opinion poll conducted in 2023:

1. Recently conducted public opinion poll shows that 85 per cent of UAE residents support nuclear energy use for generating clean electricity
2. Regional awareness for nuclear energy has grown by **15 points to 78 per cent since 2022**
3. In regard to the current impact of the UAE Peaceful Nuclear Energy Program on the Emirates, 43% of the respondents reported that Nuclear is the largest source of clean electricity in the UAE, 42% reported that the program provides high value careers for UAE Nationals and 41% highlighted that the program prevents the release of over 22.4 million tons of carbon emissions annually.
4. The shift of opinion on nuclear energy has been increasing in the last 3 years **(84% for 2023, 83% for 2022 and 77% for 2021)**
5. The perception that the benefit of utilizing nuclear technologies outweigh the risks has increased by **8% in 2023 (87% for 2023 vs. 79% in 2022)**
6. The UAE Peaceful Nuclear Energy Program awareness level has significantly increased to **77%**

Sustainability Engagements with the World

> *The UAE is a success story for harnessing the potential of nuclear energy to create a change of clean products through the Barakah Nuclear Energy Plant."*
>
> **Mohamed Al Hammadi,**
> *Managing Director and Chief Executive Officer of ENEC*

A Global Champion of Clean Energy

ENEC has been a proponent of advancing nuclear energy as a clean energy source globally. Its influence has been notable on various significant global platforms

2nd International Conference on Climate Change and the Role of Nuclear Power in Net Zero:
At the climate conference in Vienna, ENEC highlighted the essential role nuclear energy will play in delivering Net Zero and the significant benefits it has brought to the UAE today.

H.E. Al Hammadi, highlighted about how nuclear can power energy intensive industry sustainably, focusing on areas such as Artificial Intelligence (AI), datacenters, and the rapid digital revolution of industries, noting that data centers alone now utilize 4-5% of total global power supply, and this will only grow as greater digitalization occurs.

Atlantic Council Global Nuclear Energy Policy:
At the Atlantic Council Global Nuclear Energy Policy Summit 2023 held in New York , ENEC featured on the panel session with leaders from World Nuclear Association, Idaho National Laboratory and Nuclear Energy Policy initiative at Atlantic council. The key point delivered during this summit was that ENEC is utilizing its experience, skills and carbon-emissions free electricity from Barakah to accelerate the development of clean molecules such as clean hydrogen, heat and steam. These clean molecules will play an important role in preventing carbon emissions and supporting nations get closer to their Net Zero targets.

World Nuclear Symposium:
At the World Nuclear Symposium 2023 held in London United Kingdom, H.E Mohamed Al Hammadi, MD and CEO of ENEC discussed how essential nuclear energy is to Net Zero, and how it can supercharge the energy transition.

Assistant Secretary for Nuclear Energy at the U.S. Department of Energy visits Barakah Nuclear Energy Plant:
Dr. Kathryn Huff, Assistant Secretary for Nuclear Energy at the U.S. Department of Energy, visited the Barakah Nuclear Energy Plant to witness the operations and meet the teams who were working to ensure clean electricity around the clock in addition to decarbonizing the UAE's power grid. She appreciated the Barakah Plant as one of the most successful construction projects to date thanks to the international collaboration facilitated by the UAE and expressed the United States' commitment to continued cooperation with the UAE in advancing civil nuclear energy.

Nuclear Energy Forum:
ENEC is the supporting partner of the Nuclear Energy Forum and MD Al Hammadi joined panel discussions on the UAE's global leadership position in the clean energy transition.During World Utilities Congress (WUC), held in Abu Dhabi from 8 to 10 May 2023, ENEC showcased the continued impact and progress of the Barakah Plant, a nation-defining strategic energy infrastructure project, alongside global utilities leaders.

World Future Energy Summit:
At the World Future Energy Summit (WFES), held in Abu Dhabi from 16 to 18 January 2023, ENEC showcased the continued progress of the Barakah Nuclear Energy Plant, a nation-defining strategic energy infrastructure project, which is spearheading efforts towards achieving UAE's Net Zero by 2050 target by preventing millions of tons of carbon emissions annually. ENEC's commitment to international collaboration was further strengthened following the signing of a new MoU to establish strategic working groups for a Net Zero Acceleration Program.

ENEC at COP28

COP28 is the 28th annual United Nations (UN) climate meeting, where governments discuss how to limit and prepare for future climate change. It is an opportunity to **identify global solutions for limiting global temperature rise to 1.5 degrees, inform countries' preparations for revised and more ambitious Nationally Determined Contributions (national climate plans) due by 2025, accelerate the green transition that is already happening and ultimately achieve the delivery of the Paris Agreement goals.** The summit took place in Dubai, in the United Arab Emirates (UAE) from 30 November to 12 December 2023.

At COP28, the role of nuclear energy in achieving global climate goals was a significant topic of discussion. It was the first time nuclear energy was formally announced as one of the solutions to climate change. It was one of the first COP conference where nuclear had a good momentum and presence with experts highlighting nuclear energy's potential to provide clean and reliable energy. The conference underscored the need for increased investment in nuclear technology and infrastructure to accelerate the global transition to clean energy.

Role of ENEC

The team from ENEC was led by our Managing Director & CEO along with the other CEO's and chiefs in the organization.ENEC employees were given the opportunity to be part of COP28 and were encouraged to participate and attend different events on the sidelined of COP28.The focus was on nuclear as a source of clean energy. UAE invited other countries to be part of Tripling Nuclear by 2050. ENEC launched the ADVANCE program.

ENEC witnessed great feedback from international and local stakeholders on our engagement in COP28. All the events organized by ENEC have received a great media focus and have influenced the direction of COP28 to a positive direction for the nuclear industry for the first time in the history of this conference. The team will continue to advocate for nuclear energy in COP29 and keep the momentum going with neighbouring countries that joined the declaration to triple nuclear by 2050.

Below are the list of major activities that took place during COP28

Net Zero Nuclear Summit:

The Emirates Nuclear Energy Company (ENEC) played a leading role in bringing focus and attention to the global race to generating clean electrons and molecules during the opening day of the Net Zero Nuclear Summit which took place in Dubai, during COP28. **The Net Zero Nuclear Summit, was held on the sidelines of COP28, where 22 countries pledged to triple global nuclear energy capacity to achieve Net Zero by 2050.** The event was hosted by leaders of the Net Zero Nuclear initiative, which called for unprecedented collaboration between government and industry to at least triple global nuclear capacity to achieve carbon neutrality by 2050.

Ministerial Declaration: Tripling Nuclear Energy by 2050

A historic Ministerial Declaration signed at the COP28 UN climate change conference in Dubai by more than twenty countries sets a **clear goal of tripling global nuclear energy capacity by 2050.** The declaration was announced by the heads of state of France, Romania, Sweden, Poland, Czech Republic, Bulgaria, Belgium, and the United States Special Presidential Envoy for Climate, as well as energy ministers and senior officials of the other countries signing the declaration. **The 25 countries supporting this declaration made commitments to include nuclear energy at the heart of their strategies for climate change mitigation.**

The Net Zero Nuclear Industry Pledge

The Net Zero Nuclear Industry Pledge was launched, in an event held as part of the COP28 Presidency Thematic Program, in Dubai, United Arab Emirates. Endorsed by 120 companies, headquartered in 25 countries, and active in over 140 nations worldwide, **the Pledge committed industry to a goal of at least a tripling of nuclear capacity by 2050.** The companies endorsing the Pledge are matching the ambition and pragmatism shown by those governments which signed the Nuclear Ministerial Declaration earlier this week. Both the Ministerial Declaration and the Net Zero Nuclear Industry Pledge commit to the goal of tripling nuclear capacity by 2050.

3.4 RESEARCH AND DEVELOPMENT

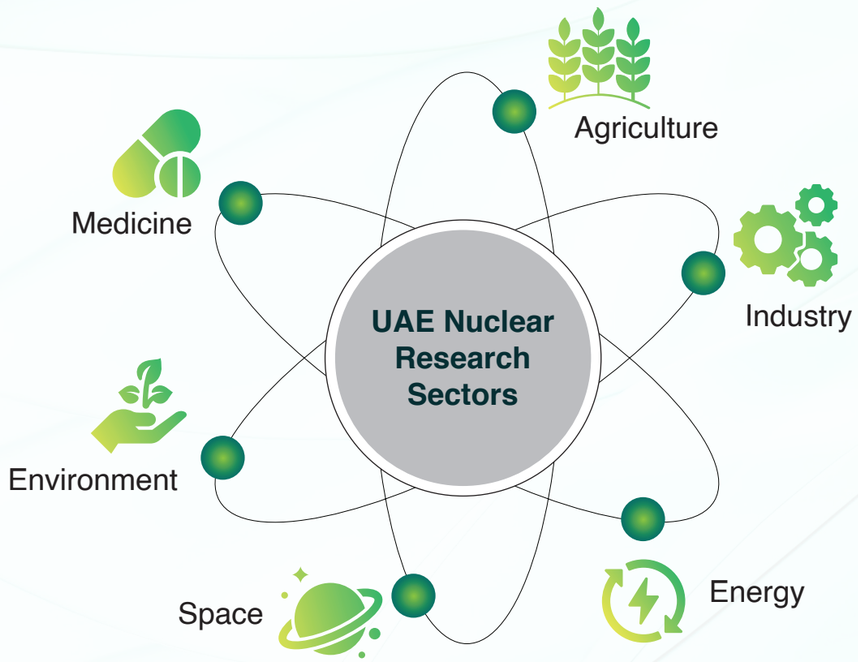
The Research and Development (R&D) Department is tasked with leading and managing a portfolio of projects that support the UAE's Peaceful Nuclear Energy Program by:

- Enhancing Overall Safety (nuclear, public, and environmental)
- Boosting operational Reliability and Efficiency
- Ensuring long-term Sustainable Operation and Maintenance
- Fulfiling Regulatory Requirements
- Building Human and National Knowledge Capability

The vision of the R&D program is to actively contribute to the UAE's aspiration of becoming a prominent regional and global leader in nuclear research for peaceful purposes. The mission of the R&D program is to spearhead research initiatives that foster the sustainability and human capacity development of the nuclear program. Through these efforts, we aim to make significant contributions to the UAE's knowledge economy and clean energy objectives.

Key Focus Areas

The R&D Program aims to develop a comprehensive research portfolio encompassing the following sectors:



To support sustainability efforts at the Barakah Plant, the R&D Program provides solutions and opportunities for the following 12 Research Focus Areas (RFA) below:

1. **Chemistry:** Researching chemical processes and interactions within the nuclear power plant to improve efficiency, safety, and sustainability.

2. **Concrete:** Developing innovative concrete formulations and testing methodologies to enhance the durability, strength, and resistance of structures within the plant.

3. **Fuel:** Advancing fuel technologies and designs to optimize performance, increase energy output, and reduce waste generation.

4. **Human Factors:** Investigating human-machine interaction, cognitive processes, and ergonomic design to improve safety, efficiency, and decision-making within the plant.

5. **Long-Term Operations:** Conducting studies on plant operations, maintenance strategies, and aging management to ensure the safe and reliable long-term operation of the Barakah Plant.

6. **Maintenance:** Developing advanced maintenance techniques, predictive maintenance models, and condition monitoring systems to optimize plant performance and minimize downtime.

7. **Materials:** Researching nuclear-grade materials, including alloys, ceramics, and composites, to enhance their properties, performance, and resistance to extreme conditions.

8. **Power Optimization:** Exploring methods to maximize power output, increase efficiency, and optimize plant performance while maintaining safety and reliability

9. **Radiation Protection:** Developing innovative radiation shielding materials, monitoring techniques and safety protocols to protect workers and the environment from radiation exposure.

10. **Safety Analysis:** Conducting in-depth safety assessments, risk analyses, and accident scenario modelling to ensure the plant's safety systems and procedures are robust and effective.

11. **Sustainability:** Investigating sustainable practices, resource conservation, waste reduction, and environmental impact mitigation to enhance the overall sustainability of the Barakah Plant.

12. **Spent Fuel and Radioactive Waste:** Developing advanced techniques for the safe handling, storage, and disposal of spent fuel and radioactive waste, ensuring long-term safety, and minimizing environmental impact.

By focusing on these Research Focus Areas, the R&D Program aims to drive innovation, enhance safety, optimize performance, and ensure the long-term sustainability of the Barakah Plant as a safe, reliable, and environmentally responsible source of nuclear power.

The R&D Program is actively exploring opportunities in the research and development of three key areas: Clean hydrogen production, Small Modular Reactors (SMRs), and Advanced Reactors.

R&D Collaborations

مركز الإمارات للتكنولوجيا النووية
Emirates Nuclear Technology Center

The Emirates Nuclear Technology Center (ENTC) at Khalifa University was established through a collaboration between ENEC, FANR, and Khalifa University (KU). Serving as a pivotal hub, ENTC is dedicated to fulfilling present and future research needs in advancing the UAE Peaceful Nuclear Energy Program. Its foremost aim is to provide secure, environmentally friendly, and effective nuclear energy solutions, in accordance with the Abu Dhabi Vision 2030 and the UAE National Energy Strategy 2050, all while prioritizing the safety of the populace, employees, and surroundings.

ENTC's mission revolves around conducting research in pivotal thematic domains of nuclear technology crucial for establishing a risk-informed foundation for the secure functioning of nuclear power facilities. This encompasses activities such as estimating potential consequences and developing strategies to address events of accidents. The primary research focus of ENTC spans Nuclear Safety and Systems, Nuclear Materials and Chemistry, and Radiation Safety in the Environment.

The R&D Program collaborates with government entities, institutions, academia, and the industrial sectors to work on various technical focus areas aligned with the R&D roadmap milestones for the Barakah Plant and the UAE Peaceful Nuclear Energy Program. The program covers projects and activities in areas such as materials research, fuel cycle optimization, environmental considerations,

Small Modular Reactors (SMRs), and hydrogen generation projects contribute to building the National Nuclear R&D capabilities and promote the growth of the knowledge economy.

Furthermore, the R&D Program places significant emphasis on human capacity and ecosystem capability development. It aims to foster a nuclear R&D culture across ENEC and its subsidiaries and the UAE. The program supports collaborative R&D projects between UAE national academia and the nuclear industry, facilitating site visits where students and Principal Investigators (PIs) interact with sponsors and subject matter experts. These visits provide an opportunity to gain insight into the research specifications and expected solutions for implementation at the Barakah Plant.

Through these initiatives, the R&D Program is committed to advancing nuclear research, nurturing talent, and fostering collaborations to contribute to the development of a sustainable and knowledge-based economy.

In 2023, the R&D Program successfully launched three projects.

- Firstly, in collaboration with TII and Khalifa University, Quantum-inspired algorithms tailored for nuclear reactor physics, aiming to develop a unified mathematical framework for solving the neutron transport equation (NTE) with tensor networks in regimes relevant to reactor physics simulations.

- Secondly, another project with TII and Khalifa University Quantum-inspired algorithms for computational fluid dynamics, aiming to develop a unified mathematical framework for solving the Navier-Stokes (NS) equation with tensor networks in regimes relevant to nuclear-reactor simulations.

- Lastly, the program partnered with EPRI to advance manufacturing processes. The Objective is to leverage and refine the agnostic results and framework to develop a Roadmap towards Advanced Manufacturing (AMM) specifically for Barakah and local supply chain.

This Industry Wide Roadmap will provide thorough R&D and testing, and necessary activities to go from initial identification of candidate components based on techno-economics and supply chain challenges to final component quality assurance ready for installation. The overall objective is to develop a roadmap for deploying AMMs for commercial nuclear applications. It focuses on laser powder bed fusion additive manufacturing (LPBF), however there is an opportunity to expand to include additional AMMs in the future.

In addition to this, the department **initiated the first Nuclear Innovation Technology Summer School (NITSS),** an educational program designed to foster the next generation of nuclear technology experts by providing them with hands-on experience and cutting-edge knowledge in the field. These initiatives reflect a strong commitment to both technological advancement and educational excellence in the nuclear sector.

Clean Energy Certificates

ENEC plays a critical role in Abu Dhabi's transition to a sustainable energy sector by contributing to the growth of a market for green certification through the generation of clean energy. This initiative aligns with the increasing global demand for Energy Attribute Certificates (EACs), which provide proof of clean energy consumption and help organizations meet ESG indicators for sustainable financing. In Abu Dhabi, the Clean Energy Certificates, a local form of EACs adhering to the International Renewable Energy Certificate (I-REC) Standard, are issued to verify the ownership of electricity from renewable sources like solar and nuclear energy. The Emirates Water and Electricity Company (EWEC) is responsible for registering nuclear and renewable energy generation facilities, including ENEC's Barakah Plant, (which is projected to generate 88% of Abu Dhabi's clean electricity by 2025). This system promotes transparency, reduces carbon footprints, and encourages investment in green energy.

ADVANCE Program

The R&D department marked a milestone in 2023 with the launch of the Small Modular Reactor (SMR) Program called ADVANCE Program, a new program to harness the latest advancements in nuclear energy technologies. The program is provisioned to strengthen the UAE's position as a leading nation in delivering climate action by accelerating the global clean energy transition to Net Zero.

The program will evaluate the latest technologies in the advanced, Small Modular Reactor (SMR) and microreactor categories, which can generate clean electrons and molecules, such as steam, hydrogen, and ammonia, as well as process heat for industrial processes. Within the 'Year of Sustainability 2023' in the UAE, the ADVANCE program will support the continued rapid decarbonization of the country's heavy and energy intensive industries, creating further sources of clean energy while using the latest technologies and helping to deliver Net Zero by 2050.

ENEC currently is working with national stakeholders to determine deployment pathways, and with international partners for both technology and project collaboration opportunities. ENEC signed multiple MOUs with advanced and SMR technology providers throughout COP 28 to start working on opportunities for collaboration, investment and deployment. The program is strengthening the UAE's position as a leading nation in delivering climate action by fast-tracking the global clean energy transition.

The ADVANCE Program boosts the UAE's R&D and innovation activities, enhancing national intellect that can cross-pollinate to related sectors. By collaborating with international partners and evaluating cutting-edge technologies, ENEC aims to revolutionize the UAE's energy landscape, particularly in heavy and energy-intensive industries, aligning with the nation's ambitious Net Zero by 2050 goal.

With the final unit of the Barakah Nuclear Energy Plant poised to begin fuel load, the UAE has already made substantial progress in decarbonizing its power sector and energy-intensive industries. Now, ENEC shifts its focus to the next phase of the UAE's Peaceful Nuclear Energy Program, **emphasizing the pivotal role of advanced reactors in achieving the country's Energy Strategy and Net Zero targets.**

ENEC's commitment to advancing nuclear energy technology underscores its position as a global leader in the clean energy transition. By harnessing the potential of advanced reactors and SMRs, the UAE not only addresses its own energy needs but also sets an example for other nations striving to reduce carbon emissions and enhance energy security.

04

BUILDING TRUST FOR OUR STAKEHOLDERS

Commitment to fostering effective governance, resilient operations, and sustainable economic growth

4.1 GOVERNANCE

Governance is one of the key topics selected among our sustainability objectives and is a crucial part of our sustainability value pillars related to Economic Footprint

Our Governance related sustainability objectives are:

To establish and maintain a world-class governance framework that ensures transparency, accountability, and ethical conduct in all aspects of nuclear energy operations, contributing to the long-term sustainability of ENEC and its subsidiaries and fostering public trust.

The foundation of our corporate governance processes lies in responsible stewardship of our economic, environmental, and social dimensions. The Board of Directors and the leadership team are committed to maintaining our viability and prosperity, continually enhancing our Environmental, Social, and Corporate Governance (ESG) standards. Our standards undergo annual evaluation and rating by our holding company, ADQ. Our robust and streamlined governance structure not only facilitate effective business operations but also ensure thorough assessment and management of risks that may affect our plants and operations. Additionally, it guarantees appropriate utilization of funds.

Governance Structure and Composition

GRI 2-9, 2-12

Under the guidance and direction of the Board of Directors, ENEC and its subsidiaries consistently evaluate existing arrangements to bolster governance excellence. This involves aligning our processes, procedures, and performance with the standards set forth by the Abu Dhabi Accountability Authority (ADAA), Federal Authority for Nuclear Regulation (FANR), World Association of Nuclear Operators (WANO), and the Institute of Nuclear Power Operations (INPO), and other applicable laws and legislations.

ENEC and its subsidiaries recognize the crucial role of strong leadership and commitment in advancing the UAE's Peaceful Nuclear Energy Program. This program is steered by a Board of Directors, comprising members renowned for their expertise in the nuclear, corporate, and governmental sectors, alongside an executive management team. We have instilled a steadfast governance philosophy and Code of General Business Principles and Ethics, which drive our pursuit of business excellence and enable us to surpass international benchmarks.

UN SDGs Addressed

Equal opportunity and reduce inequalities

Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard

Develop effective, accountable and transparent institutions at all levels

Primary expenditures as a proportion of the original approved budget, by sector (or by budget codes or similar).

Substantially reduce corruption and bribery

Monitor and disclose the proportion of business/ person who had at least one contact with a public official and who paid a bribe to a public official or were asked for a bribe by those public officials, during the previous 12 months.

Promote and enforce non-discriminatory laws and policies for sustainable development

Monitor and disclose the proportion of the population reporting having personally felt discriminated against or harassed in the previous 12 months on the basis of a ground of discrimination prohibited under international human rights law.

Board of Directors: Nomination and Selection

GRI 2-10, 2-17, 2-18

The Board of Directors are the supreme authority entrusted by Abu Dhabi Law No. 8 of 2021, with full authority to govern and oversee the Organization's activities. It has the power, objectives and responsibilities set forth in Law No. 8 and the ADQ decision dated 03 June 2021.

Board members are appointed based on their expertise, including their understanding of the unique safety and security responsibilities of ENEC and its subsidiaries. The Board is a collegial body, but members can act critically and independently of one another, especially when such independence enhances nuclear safety, security, and reliability.

It is an essential requirement for the Board Members to participate in an induction program and receive the necessary training in nuclear power, safety, and decision-making. The Chairman of the Board subjects the Board Members to performance evaluation measures at the end of their respective terms. **The performance results are considered for renewal of appointment for a further period and shared with the Abu Dhabi Executive Council, if requested.**

GRI 2021: 2-9, 2-10, 2-11

His Excellency
Khaldoon Khalifa Al Mubarak
Chairman, Board of Directors

His Excellency
Eng. Suhail Mohamed Faraj Al Mazrouei
UAE Minister of Energy and Industry
Vice-Chairman, Board of Directors

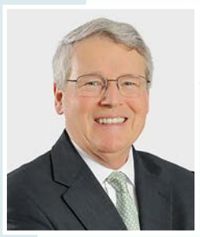
H.E. Mohamed Hassan Alsuwaidi
UAE Minister of Investment,
Member, Board or Directors

H.E. Awaidha Murshed Ali Al Marar
Member, Board of Directors

H.E. Mohamed Al Hammadi
Managing Director and ENEC CEO,
Member, Board of Directors

Masood M. Sharif Mahmood
Member, Board of Directors

David V. Scott
Member, Board of Directors



Michael J. Wallace
Member, Board of Directors

Charles G. Pardee
Member, Board of Directors

Board Committees

GRI 2021: 2-9, 2-13, 2-14

The Board has three committees to oversee the activities and to provide clear direction. The responsibilities of each committee are outlined in a written charter approved by the board.

Board Committee	Description	Sustainability Issues Addressed
Committee on Nuclear Power (CNP)	CNP oversees and advises the Board of Directors on nuclear safety, security, reliability, regulation, and environmental matters related to the construction and operation of the nuclear units. The CNP consists of three board members and external members with extensive prior nuclear industry experience.	- Health and Safety - Security - Quality and Reliability - Environmental Management
Audit, Risk, and Compliance Committee (ARCC)	ARCC assists the Board in discharging its responsibilities overseeing Audit, Governance, Risk Management, and Compliance functions. The ARCC is composed of three members and chaired by a Board Member. One member of the committee is at least independent of the ENEC Board of Directors.	- Health and Safety - Governance and Accountability - Risk Management - Ethics - Regulatory Compliance
Human Capital Committee (HCC)	HCC, comprised of at least two Board members, reviews, and advises the Board of Directors on issues regarding human resources and staffing, compensation, and senior executive succession planning.	- Resourcing and Succession - Emiratization - Training and Development

We have established and enforced a robust set of standards, principles, and model behaviours for our employees to adhere to as a part of their duties. It is mandatory for all employees, contractors, business partners, and representatives to uphold the utmost standards of personal and professional integrity across all facets of their engagements. We expect full compliance from all our stakeholders with regard to applicable laws, rules, regulations, standards, policies, and procedures.

Auditing and Accountability

GRI 2021: 2-16, 2-23, 2-26

We regularly report our financial performance and the performance of our subsidiaries to the Department of Finance (DoF), Abu Dhabi Development Holding Company (ADDH; now known as ADQ), and the Department of Energy (DoE). To ensure timely, meaningful, and reliable disclosures of our financial performance, the following mechanisms are in place:

Statutory Audit: Conducted by an external audit firm, which provides an opinion on the financial statements prepared by the management. The external audit firm conducts a review of the quarterly financial statements, audits the annual financial statements, and reports the results to the Audit, Risk and Compliance Committee.

Internal Audit: Regular reviews and audits of our financial and non-financial systems, processes, conducted by the internal audit team.

ADAA: ENEC and subsidiaries are subject to Abu Dhabi Accountability Authority (ADAA) oversight. ADAA is the supreme entity responsible for promoting the principles of accountability, transparency, and integrity across Abu Dhabi entities. It seeks to ensure public resources and funds are managed, collected, and expended efficiently, effectively, and economically, safeguarding them for future generations.

External Audit: Conducted quarterly, bi-annual, and annual audits by an independent third-party auditor, reporting the findings directly to the ENEC Board of Directors.

Management Systems (MS) Internal and External Audits: Conducted annually according to management system requirements internally by the MS team and externally by appointed third parties.

Internal Audit

GRI 2021: 2-16

Our internal audit function provides independent **objective assurance and advisory support** to Senior Management and the Board of Directors by evaluating and recommending improvements related to risk management, internal control, governance processes, and supporting anti-fraud and misconduct investigations. Our internal audit function is well established and acts as an assurance provider to the Board of Directors, reporting directly to the Board via the ARCC. The function conducts annual risk assessments covering all activities, including performance, finance, procurement & supply chain, Information, and Communications Technology (ICT), human resources, operations and any audit-related issues that arise annually. The internal audit function adheres to the Institute of Internal Auditors (IIA) standards and the requirements set by ADAA and is subject to periodic assessments by ADAA.

The Combined Assurance Framework (CAF) is implemented to provide a means for the internal audit function and other assurance providers to work together and align their assurance processes. As a result, the audit committee and senior management are given insights on governance, risk management, and control arrangement from a comprehensive, holistic perspective. As part of the 2023 audit plan, all risks identified, including mitigation plans, were assessed to ensure the appropriate implementation of measures to eliminate and minimize any potential negative impacts.

Business Principles, Ethics and Compliance

GRI 2021: 2-26

We maintain robust set of standards, principles, and model behaviours to ensure the utmost adherence to ethical standards and integrity, alongside compliance with all relevant legal and regulatory mandates. This approach fosters a corporate culture aligned with pertinent legal and regulatory requirements, devoid of any instances of fraud or misconduct.

Compliance

The Ethics and Compliance Department is part of the Legal Division of ENEC Operations and provides compliance services across ENEC and its subsidiaries. The Enterprise Ethics and Compliance Department, reporting to the General Counsel of ENEC Operations, is responsible for establishing, operating, and maintaining the compliance program and building a robust culture of ethics and compliance at ENEC and its subsidiaries.

Policies and Frameworks

Ethics and Compliance Framework	• Ethics and Compliance Program, covers ethical, legal, and regulatory compliance aspects • Based on an international standard, the ISO 37301 framework (Compliance Management System – Requirements with guidance for use) and the Internal Control Framework from the Committee of Sponsoring Organizations (COSO).
Governance, Risk, and Compliance (GRC) Policy	• This policy implements an integrated, systematic, and proactive corporate governance structure to achieve the organizational goals. • It establishes and maintains governance over our subsidiaries with a high level of performance while managing diverse risks and promoting compliance with the highest standards of ethics and applicable agreements, laws, and regulations.
The Ethics and Compliance Policy	• Enterprise Ethics and Compliance Policy statement confirms our commitment to ethical conduct and compliance with applicable laws and regulations. • Across ENEC and its subsidiaries, we adopt a zero-tolerance approach to all forms of fraud and misconduct. This is reflected across the organization through this Policy.

Compliance and Ethics Program Governance

GRI 2-18

Board Oversight of the Compliance Program

The Audit, Risk and Compliance Committee (ARCC), which is a Board Committee, oversees the ethical compliance and legal and regulatory compliance programs. A report is presented to the ARCC every quarter on the implementation and performance of the Compliance Program.

Management Oversight of the Compliance Program

The Compliance Review Board (ECRB), a management oversight body comprising of the CEOs and the Senior Officers of ENEC and its subsidiaries, maintain the management oversight and conducts management reviews on the compliance program implementation, performance, and effectiveness.

Advisory Body for the Compliance Program

The Compliance Council (ECC) continues to provide advice on implementing the compliance program. The Vice Presidents and Directors, who are the compliance area owners of the business form the Council, offer the necessary support for the implementation of the compliance program.

Enterprise Employee Relations and Ethics Committee

This committee oversees the investigations of fraud and misconduct cases and endorses the investigation reports for necessary disciplinary actions. This committee also reviews the cases referred for final warning and termination for consistency in the application of sanctions to violations pertaining to our Code of General Business Principles and Ethics.

Legal and Regulatory Compliance Program

GRI 2-27

Compliance Program

We continue to maintain and regularly update a compliance universe, which is a live repository of all applicable international, federal, and local laws, regulations, licenses, permits, and commitments, in coordination with the relevant subject matter experts from legal and other functions. This includes various compliance areas based on the subject managed, and owners and ambassadors are assigned to demonstrate compliance on their applicable obligations. The Ethics and Compliance Department facilitates the establishment of compliance registers for each area and regularly monitors them.

Some of the significant laws enacted in 2023 that are applicable to include:

- Cabinet Decision No. (74) of 2023 on the Executive Regulation of Federal Decree-Law No. (28) of 2022 on Tax Procedure
- Cabinet Decision No. (75) of 2023 on the Administrative Penalties for Violations Related to the Application of Federal Decree-Law No. (47) of 2022 on the Taxation of Corporations and Businesses
- Ministerial Resolution No. (455) of 2023 Concerning the Process for Implementing the Emiratization Targets for Private Sector Establishments that Employ Between 20 And 49 Employees in Selected Economic Activities.
- Ministerial Decision No. 496 of 2023 on the Preservation of the Worker's Entitlements in the Event of His Death
- Resolution No. 14 of 2023 of the Board of the Management of the Federal Authority for Nuclear Regulation Granting Emirates Nuclear Energy Company P.J.S.C the License for the Construction of Unit Four of the Barakah Nuclear Facility and Related Regulated Activities
- Resolution No. 15 of 2023 of the Board of Management of the Federal Authority for Nuclear Regulation Granting to Emirates Nuclear Energy Company P.J.S.C the License for the Transportation of Unirradiated Nuclear Fuel
- Resolution No. 16 of 2023 of the Board of Management of the Federal Authority for Nuclear Regulation Granting Emirates Nuclear Energy Company P.J.S.C the License of the Selection of a Site for Construction of a Fuel Assembly Fabrication Facility
- Federal Tax Authority Decision No. 12 of 2023 Conditions for Forming the Tax Group by Subsidiaries of a Government Entity for the Purposes of Federal Decree[1]Law No. 47 of 2022 on the Taxation of Corporations and Businesses
- Ministerial Resolution No. 331 of 2023 regarding Chemicals Banned and Restricted for Use in the United Arab Emirates
- Ministerial Resolution No.(27) of 2023 Regarding the Extension of the Deadline for the Conversion of Employment Contracts
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- Ministerial Resolution No. (662) of 2022 on the Amendment of Some Provisions of Ministerial Resolution No.(279) of 2022 Regarding the Monitoring of Emiratization Rates in the Private Sector and the Imposition of Contributions on Non-Compliant Establishments
- Ministerial Decision No. 43 of 2023 Concerning Exemption from Tax Registration for the Purpose of Federal Decree-Law No. 47 of 2022 on the Taxation of Corporations and Businesses
- ADAA Chairman's Decision #42 as amended by Law #35 of 2023 on Disclosures requires all persons holding supervisory board positions or executive management positions within such companies to submit a periodic disclosure of their personal financial standing to ADAA.

The implementation of the Governance, Risk and Compliance platform (Emtithal 360) is underway to automate our compliance management processes.

Ethical Compliance Program

GRI 2016: 205-1, 206-1

Code of General Business Principles and Ethics (the Code)

- ENEC and its subsidiaries Code of General Business Principles and Ethics stipulates the expected professional behaviours (compliance with legal obligations regarding ethical conduct) from all employees irrespective of their category of employment.

- It covers a wide range of topics including anti-fraud, anti-corruption, and misconduct, Health, Safety and Environment, treating each other with respect, preventing harassment, intimidation, retaliation, and discrimination, assuring non-retaliation against employees who raise concerns, protecting assets of the organization and other related topics.

It is mandatory for each employee to complete training on the Code annually. The training completion is tracked using Learning Management System Taqa (LMS Taqa) and adherence to ethics and prevention of fraud and corruption principles is ensured through annual disclosures through the Disclosure Management System.

Code of Conduct for Suppliers

The Supplier Code of Conduct sets forth the principles and standards of conduct that we expect from suppliers, their employees, subcontractors, and sub-suppliers to abide by during the provision of goods and services.

The Supplier Code of Conduct includes topics such as compliance with legal and regulatory requirements, compliance with policies and procedures, health and safety management, business continuity management, environmental and sustainability leadership, labour issues and human rights, ethical business conduct, the Anti-Fraud and Misconduct Program (AFMP), conflicts of interest, engagement with external parties, general management and administration supplier concerns, monitoring and compliance with the supplier code, and breach of the Supplier Code of Conduct.

To support compliance with this Code, suppliers shall ensure that the Code is shared with all individuals assigned to perform work for or on behalf of ENEC and its subsidiaries, and that individual with the skills, expertise, and certifications necessary to uphold the principles and meet the standards of the Code execute the related tasks.

Promoting an Ethical Culture

GRI 2016: 205-1,205-2, 206-1

Anti-Fraud and Misconduct Program (AFMP)

The AFMP procedure was established with an aim to:

- Support prevention, detection, investigation, and addressing instances of fraud or misconduct within our organization.

- Foster honesty and ethical behaviour in the organization's culture and environment.

The whistleblowing system outlined by the AFMP procedure provides a framework to promote responsible and secure whistleblowing. It serves to receive and address any concern or complaint regarding fraud and/ or misconduct by providing anonymous reporting channels to report suspected incidents of fraud, fraudulent activity, or misconduct.

The four reporting channels are:

i. Toll-free hotline available in multiple languages 24/7 across several countries

ii. Dedicated email address for reporting concerns

iii. Dedicated Web Portal – internal and external

iv. Provision to submit verbal/ written complaints using AFMP reporting forms

The AFMP procedure prioritizes protecting whistleblowers, condemning and addressing any retaliation against them for reporting concerns in good faith.

ENEC Reporting
My Voice (starcompliance.com)

Managing the Risks of Fraud, Bribery and Corruption

A Fraud Risk Management Framework has been developed to delineate the principles and methodologies aimed at preventing, detecting, and deterring instances of fraud, bribery, and corruption within the workplace.

In alignment with regulations set forth by the ADAA, a comprehensive **fraud risk management assessment** was conducted across various areas including prime contracts, procurement, human resources, nuclear training, industrial development, information security, and information and communication technology. The primary objective of this assessment is to identify potential fraud scenarios, evaluate their associated risks, review existing control measures, and determine actions necessary to minimize the risk to As Low as Reasonably Practicable (ALARP) levels.

Managing the Risks due to Sanctions

Sanctions Compliance Program aims to:

- Minimize/eliminate exposure of the Organization to entities or individuals designated under various sanction lists including the UAE's terrorist list

- Support ENEC and its subsidiaries to comply with the requirements of UAE Federal Law, and the terms and conditions set by our lenders and other partners.

A sanctions screening tool has been deployed through which we continually screen and monitor our suppliers for any sanctions update and adverse media information against our critical suppliers and apply the necessary controls.

Furthermore, we have also instituted a questionnaire to conduct integrity due diligence on our suppliers through the supplier lifecycle module under SAP Ariba, as managed by the Supplier Relationship Management Team.

Awareness Campaigns and Training

GRI 2016: 205-1

Onboarding Sessions

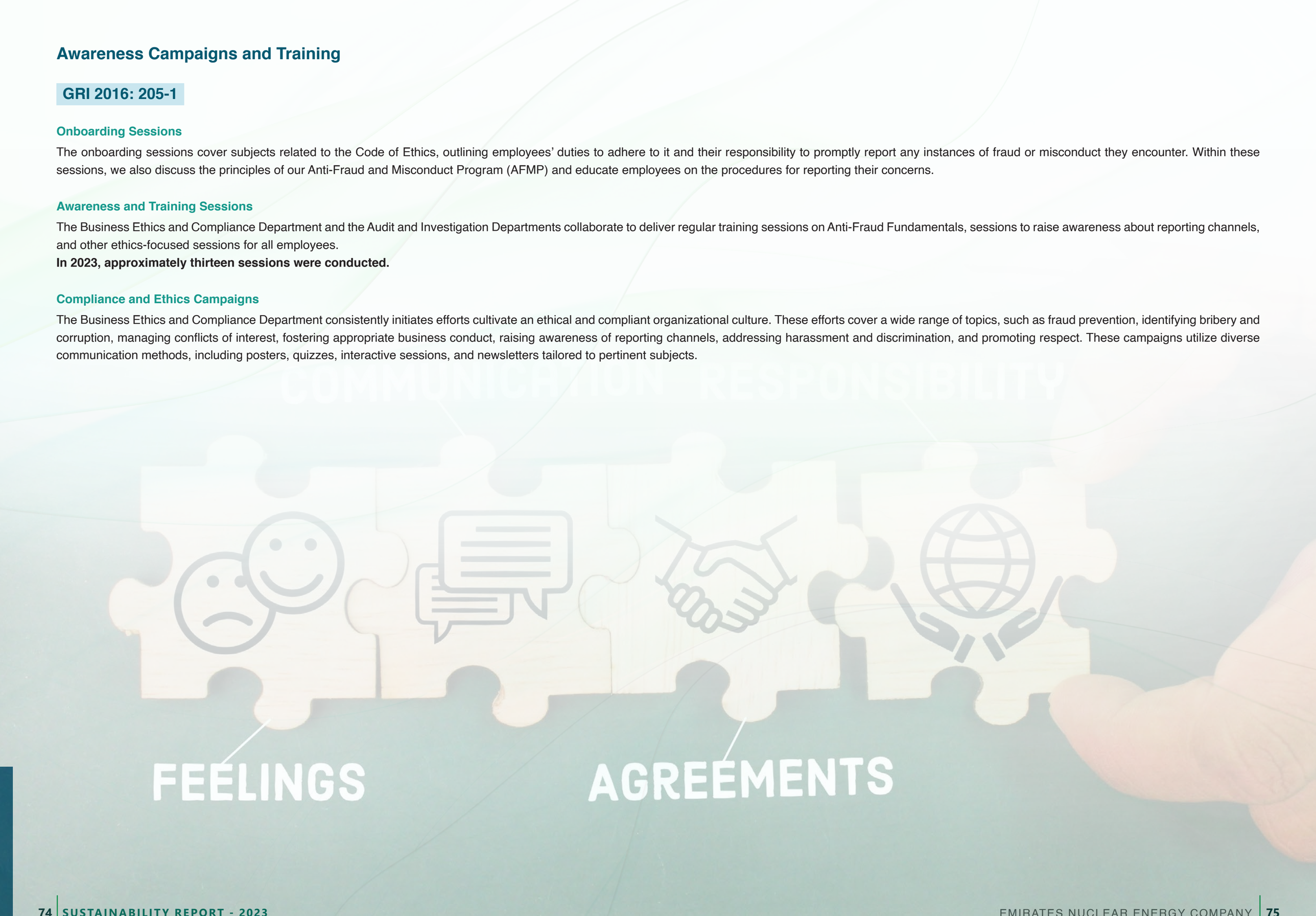
The onboarding sessions cover subjects related to the Code of Ethics, outlining employees' duties to adhere to it and their responsibility to promptly report any instances of fraud or misconduct they encounter. Within these sessions, we also discuss the principles of our Anti-Fraud and Misconduct Program (AFMP) and educate employees on the procedures for reporting their concerns.

Awareness and Training Sessions

The Business Ethics and Compliance Department and the Audit and Investigation Departments collaborate to deliver regular training sessions on Anti-Fraud Fundamentals, sessions to raise awareness about reporting channels, and other ethics-focused sessions for all employees.
In 2023, approximately thirteen sessions were conducted.

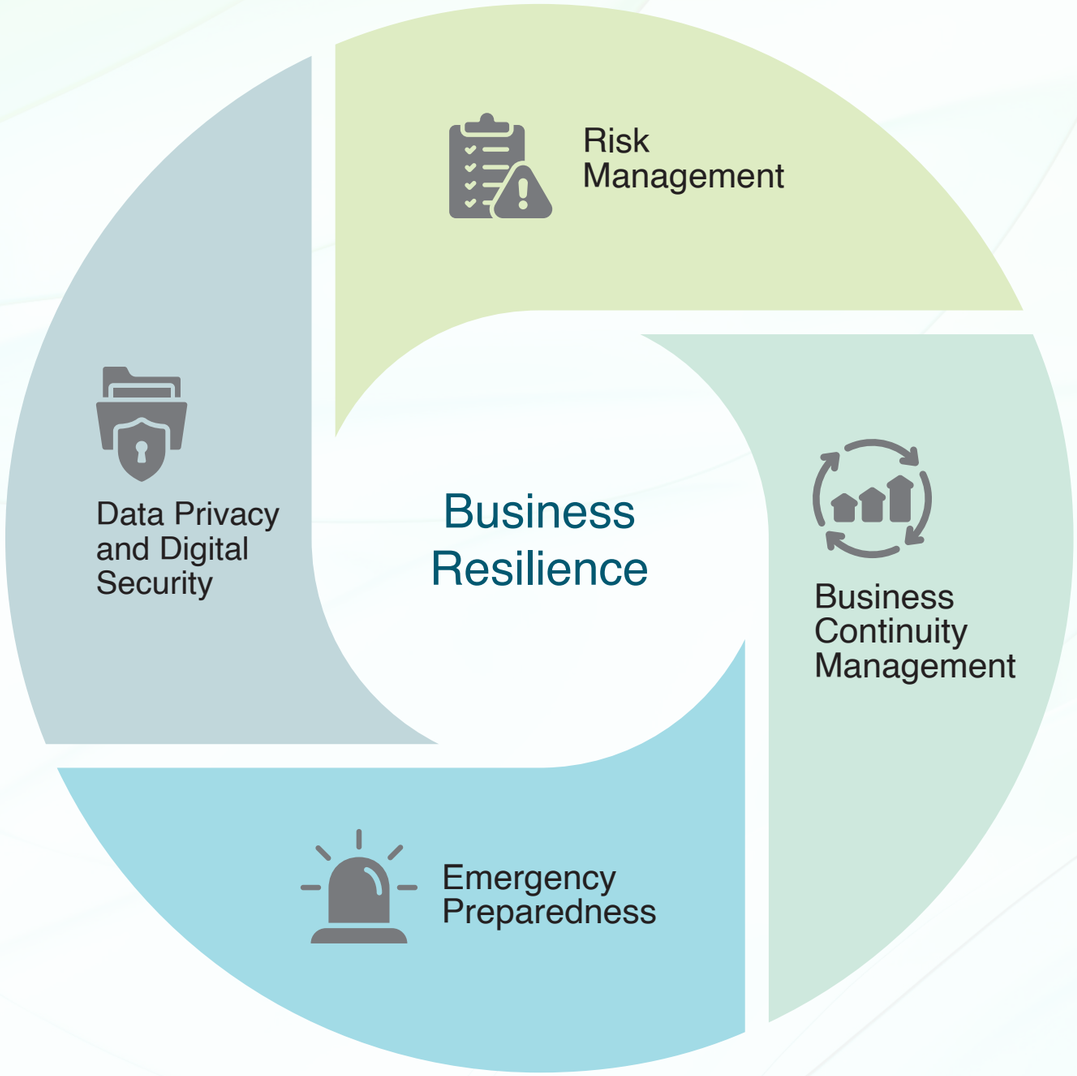
Compliance and Ethics Campaigns

The Business Ethics and Compliance Department consistently initiates efforts cultivate an ethical and compliant organizational culture. These efforts cover a wide range of topics, such as fraud prevention, identifying bribery and corruption, managing conflicts of interest, fostering appropriate business conduct, raising awareness of reporting channels, addressing harassment and discrimination, and promoting respect. These campaigns utilize diverse communication methods, including posters, quizzes, interactive sessions, and newsletters tailored to pertinent subjects.



4.2 BUSINESS RESILIENCE

Business resilience is essential for the organization to maintain operational stability, manage risks, prepare for emergencies, ensure business continuity and uphold stakeholder confidence. Our comprehensive Risk Management program integrates assurance frameworks, business continuity management, and crisis response protocols, ensuring swift and efficient responses to potential events to mitigate impacts and uphold business continuity. The Risk Management team meticulously evaluates key Environmental, Social, and Governance (ESG) risks as part of their responsibilities.



Risk Management

GRI 2021: 2-12, 2-24

The Enterpise Risk Management Committee (ERMC) functions as Risk Counsel for ENEC, its subsidiaries, and their Boards. The Board of Directors are responsible for overseeing the processes established to identify and to proactively, assess, manage, report, and monitor material risks that threaten to achieve the goals and objectives.

The formalized ERM process has been established based on best practices from the IRM/AIRMIC/ ALARM 2002, COSO ERM Framework 2004, ISO31000:2009, and the PMI, as well as incorporating lessons learned from practical experience on both nuclear projects and large, complex non-nuclear projects.

The Risk Management team has conducted multiple benchmarks over the past years and has actively engaged in diagnostic reviews, including with ADQ. Our implementation stands out as the most advanced among our group of companies. Our maturity is demonstrated through the adoption of Board-approved tolerance and appetite criteria, a combined assurance framework, and effective escalation methods for the Enterprise Risk Management Committee (ERMC). With the committee comprising all C-suite members, our risk management process is not only highly advanced but also prominently visible throughout the organization.

Quality, Efficiency, and Reliability

GRI 2021: 2-4

ENEC and its subsidiaries, are dedicated to upholding safety standards through their Quality Assurance (QA) program. This QA program has been developed to guarantee that the first nuclear energy plant in the UAE is built, operated, and maintained in accordance with the highest industry standards, regulatory requirements, and licensing obligations.

The QA program we have implemented is a crucial component of our organization's Integrated Management System, encompassing not only our own operations but also those of our contractors and sub-contractors within our supply chain. By extending the reach of our QA program to all facets of our activities, our goal is to uphold the highest standards of safety, quality, availability, and reliability. Thus far, we have invested over 40,000 man-hours into conducting quality audits across every aspect of the program.

In order to maintain high standards and improve the effectiveness of the program, routine audits of the IMS, NIMS framework and QA program are carried out. **Throughout the year 2023, a total of 132 internal and external QA/MS audits and assessments were conducted on various components of the IMS/NIMS framework and QA program. This encompassed 71 Internal Audits and assessments, as well as 61 Supplier audits.**

Quality Assurance
https://www.enec.gov.ae/about-us/leadership-and-governance/quality-assurance/

Business Continuity Management

The Business Continuity Management (BCM) Department, within the Corporate Strategy and Governance (CSG) function, is tasked with the comprehensive development, execution, and oversight of Business Continuity (BC) capabilities to embed resilience into daily operations.

Business Continuity Management Program Organization and Scope

The objective of the BCM program is to maintain the performance of activities needed to achieve business objectives, and to meet stakeholder expectations following business disruptions.

These BCM processes adhere to the stipulations outlined by the National Emergency Crisis and Disasters Management Authority (NCEMA) regulation, as well as other relevant laws and regulations. In compliance with the requirements of NCEMA 7000:2021 and ISO 22301:2019 BCM standards, we set out key objectives to enhance program implementation and ability to respond to business disruptions, particularly to recover prioritized business processes, contributing to the delivery of clean energy, utilizing predefined resources, and dependencies.

Business Continuity Management Program Compliance and Reporting

According to Federal Decree-Law No. 2 of 2011, Article 19, ENEC and its subsidiaries are obligated to create plans that ensure business continuity based on the UAE National Standard for BCM - NCEMA 7000. To ensure consistency in implementation and internal reporting of BCM compliance across, the BCM Department, working in collaboration with Business Ethics and Compliance, developed a Business Continuity Compliance Register documenting the specific requirements of NCEMA 7000.

In addition to internal reporting of BCM compliance against NCEMA 7000, reporting against the provisions in the International Standard for Business Continuity Management: ISO 22301 is regularly conducted. The Corporate Management Systems Group develops the Business Continuity Management Matrix to assess compliance with ISO 22301, with technical support from the BCM Department.

ENEC and its subsidiaries, fulfil requests from external entities for reports and assessments on BCM compliance. Among the external entities, which request and receive reports and assessments on BCM compliance from ENEC and its subsidiaries are Abu Dhabi Emergency, Crisis, and Disasters Management Centre (ADCMC), ADQ and DoE. The BCM Program implementation reports to ADCMC are based on compliance with NCEMA 7000.

Moreover, various stakeholders including the Quality Assurance (QA), ADCMC, DoE, and an independent third party have audited the BCM Department in 2023 to measure compliance level with the NCEMA 7000:2021 and ISO 22301:2019 Standards.

Business Continuity Management Program Accomplishments, 2023

In 2023, the BCM Department achieved the following significant accomplishments:

- Completed DoE and ADCMC joint audit and achieved NCEMA:2021 certification with 1 NC.
- Implementation of PMD-PRC-BCM-0002 Interim BC Plan for BC exercise across functions/ processes included in 2023 scope.
- An audit conducted by an independent third party led to the recertification of ISO 22301:2019.
- Conducted a joint awareness session with DOE, which received positive feedback from participants.

Emergency Preparedness

We ensure that commissioning and operations of all programs, processes, and activities are developed, implemented, and completed in a safe and effective manner.

Our Emergency Preparedness and Response program is a comprehensive program developed in collaboration with internal and external stakeholders. It covers all aspects of nuclear emergency activities, emergency response organization, emergency equipment, training, and awareness.

ENEC Operations is the custodian of the Barakah Emergency Preparedness Program, which ensures that commissioning and operations of all programs, processes, and activities are developed, implemented, and completed in accordance to their processes in a safe and efficient manner.

The comprehensive program focuses on a commitment to protect the health and safety of employees, the public, and environment from a potential radiological event, and developing and implementing functional roles and capabilities in the following areas:

01 | EP Programs

- Onsite Emergency Preparedness
- Offsite Emergency Preparedness
- Emergency Response Equipment and Facilities
- Barakah Emergency Plan and associated Implementing Plans and Procedures

02 | EP Drills, Exercise and Training

- Emergency Response Training
- Drill and Exercise Programs

03 | EP Crisis Management

Emergency Preparedness and Response

The ability of ENEC Operations to respond to a radiological emergency at the BNPP in a timely and effective manner must be periodically demonstrated in order to obtain, and maintain, an operating license from FANR. Emergency drills and exercises are scheduled at periodic intervals to test the effectiveness of ENEC Operations Emergency Response Plan, and it's implementing procedures, which include: emergency communications, the timely response of the Emergency Response Facilities, the adequacy of emergency response resources, and the coordination between the various agencies involved.

ENEC Operations is working closely with FANR, local stakeholders, the IAEA and international nuclear experts to ensure that their Emergency Preparedness and Response Program adheres to the highest international standards.

Key Performance Indicators as described in ENEC Operations business plan are closely monitored to ensure all aspects of the Emergency Preparedness and Response Program are maintained to the highest levels. Additionally, the onsite emergency plan includes assessment criteria and protective actions to return the plant to a stable condition in case of radiological emergencies.

Training and Certifications

The focus of the EP training section is to train and qualify ERO personnel to perform their duties during an emergency. Specialized instructors in EP conduct different sets of initial and continuing trainings to maintain the performance and qualifications of the ERO personnel.

Emergency Response Organization (ERO) qualification

Maintaining ERO members' qualification goes through multiple process, starting with setting monthly checks through TAQA for all ERO members. In addition, weekly team checks are done prior to the duty to ensure that there is no unqualified ERO member on the next duty. Moreover, ERO members with a near date of qualification expiry are contacted by EP employees immediately to assist ERO members in maintaining their qualification and remove any ERO members from Roster who fails to renew their qualification before taking their duty. Moreover, all ERO members get their qualification checked before adding them officially to the main ERO Roster.

EMERGENCY PREPAREDNESS HIGHLIGHTS IN 2023

01 **There were 84 updates to the emergency preparedness and response procedures throughout the year.** The purpose of changes was editorial and enhancements to address feedback from drills, exercises, audit and inspections.

02 **In 2023, emergency preparedness held and coordinated (320) trainings including Tabletops and SAMG trainings sessions.**

03 **In 2023 Emergency Preparedness conducted four drills, out of which 1 was FANR evaluated exercise integrated with the stakeholders.**

04 **There were eighteen (18) different emergency response training sessions conducted in HQ with a total of 100 employees attending them.**

05 **As part of the Annual Evacuation Drill Plan for 2023, two (2) evacuation drills were held.**

06 **In addition, Offsite response organization leads conducted a site visit before each drill to go through the onsite response facilities and processes.**

Data Privacy and Digital Security

GRI 418

Security is an overriding priority and to secure the operation of the UAE's first nuclear plant and contribute to the resilience of the UAE's critical energy infrastructure.

The organization has shown unconventional commitment and adherence towards the security of criticalinformation and information systems in accordance with the regulations, guides and standards of UAE's Federal Authority for Nuclear Regulation (FANR) - The official regulated body that controls and supervises the nuclear sector in line with International Atomic Energy Agency (IAEA) Safety Standards, Cyber Security Council (CSC), TDRA UAE Information Assurance Standard (UAE IA), Department of Energy (DOE), UAE Data Privacy Law, and other national and international standards and best practices.

The organization maintains a robust risk-based Cyber Security program (IT/OT) that assures a comprehensive implementation of an organization-wide Information Security Management system that works collaboratively with all internal and external stakeholders, regulators and communities on management of cybersecurity strategy and planning, risks, awareness and training, compliance, performance evaluation, human resources security, asset management, physical and environmental security, operations security, communications, access control, third-party security, information systems acquisition development and maintenance, Information system incident management, information security continuity management.

Our cyber security program applies the security in depth concept for holistic protection and continual improvement is at the core. The program is ISO 27001 certified and scored one of the top three ADQ Cybersecurity Programs with 98% UAE IR Adherence.

The organization is on a digital transformation journey where Cyber Security continually uncovers opportunities and high-end abilities to manage the increasing risks surrounding this new paradigm. Cloud Security Standard and Framework with AI considerations is an example of how the program is augmenting and enhancing the ecosystem to manage risks and threats for the digital age.

4.3 SUSTAINABLE ECONOMIC GROWTH

GRI 2021: 3-3

The UAE Peaceful Nuclear Energy Program is a vital part of the UAE's clean energy ecosystem of low-carbon technologies, ensuring the sustainability, reliability, and resiliency of the UAE grid for at least the next 60 years. Barakah is just the beginning, with ENEC focused on exploring and incubating strategic investments in nuclear energy locally and internationally that support the UAE's growth and development goals. Gas demand in Abu Dhabi Emirate is now at an 11-year low because of the significant transformation in how the Emirate is generating its electricity.

The UAE Peaceful Nuclear Energy Program not only ensures national energy security but also catalyzes future economic expansion. By creating skilled job opportunities and fostering new business ventures in the local market, the program contributes significantly to the country's socio-economic development. ENEC's leadership has displayed a new model to the world for nuclear developments, with Barakah widely recognized as one of the most advanced, nuclear plants globally.

Sustainability Objectives

Our goals for sustainable economic development encompass the following objectives:

- Financial responsibility – Deliver cost-effective power through a combination of fiscal responsibility and effective operational execution.
- Supply chain management – Develop a supply chain that is increasingly local and meets the environmental, social, and sustainability standards of the nuclear industry.
- Economic development – Become a driving force behind the UAE's investment plan, providing business development opportunities and contributing to the UAE's GDP.
- Action to combat climate change – Deliver zero carbon electricity to the energy grid, thereby reducing the UAE's GHG emissions.

UN SDGs Addressed

TARGET 7.2

By 2030, increase substantially the share of renewable energy in the global energy mix

Disclose renewable energy share in the total final energy consumption.

TARGET 8.2

Diversify, innovate, and upgrade for economic productivity.

Achieve higher levels of economic productivity through diversification, technological upgrading, and innovation, including through a focus on high value added and labour-intensive sectors.

TARGET 8.3

Substantially reduce corruption and bribery

Promote development-oriented policies that support productive activities, creation of decent work, entrepreneurship, creativity, and innovation, and encourage the formalization and growth of micro, small- and medium-sized enterprises, including through access to financial services.

TARGET 9.2

Promote policies to support job creation and growing enterprises.

Promote development-oriented policies that support productive activities, creation of decent work, entrepreneurship, creativity, and innovation, and encourage the formalization and growth of micro, small- and medium-sized enterprises, including through access to financial services.

TARGET 12.7

Promote sustainable public procurement practices.

Promote public procurement practices that are sustainable, in accordance with national policies and priorities.

Financial Responsibility

ENEC and its subsidiaries' commitment to responsible and productive business operations is commendable. By establishing comprehensive guidelines and protocols, they ensure the efficient and effective utilization of government resources dedicated to the UAE Peaceful Nuclear Energy Program. This approach not only maximizes the program's benefits but also underscores a dedication to transparency, accountability, and sustainability. By adhering to these standards, ENEC and its subsidiaries contribute to the program's success while upholding the highest standards of corporate governance and ethical conduct.

Project Financing

GRI 2016: 201-1, 201-2

ENEC established a comprehensive, sound financial structure that has allowed for the construction of the UAE's first nuclear energy plant and infrastructure to progress towards the delivery of Units 1 to 4. The overall project financing requirements are estimated at United States Dollar (USD) 27.2 billion:

- USD 17.9 billion comes from a direct loan by the Government of Abu Dhabi.
- USD 2.5 billion has been provided as a direct loan from the Export–Import Bank of Korea (KEXIM), which was refinanced to FAB and ADCB (New Commercial Loan) during 2023.
- USD 0.3 billion was generated through loan agreements with five local and international commercial banks.
- A total of USD 6.5 billion in equity commitments were made for the establishment of the Barakah One Company (now ENEC Commercial) in exchange for equity interest in the company, shared between ENEC (82%) and KEPCO (18%).

In addition to the above, ENEC had entered into a financing arrangement for the 1600 unit site accommodation project from HSBC amounting to USD 175 million, and a working capital facility with FAB for AED 1.29 Bn.

ENEC's JV Barakah One successfully completed refinancing of the Barakah plant through prominent UAE banks, driving greater in-country value and demonstrating strong investor confidence in the project. The Plant has showcased to the world that such projects are bankable and can be delivered in a timely manner with utmost quality and safety.

Direct Economic Value Generated

Budgeting and Spending

GRI 2016: 201-1, 201-2

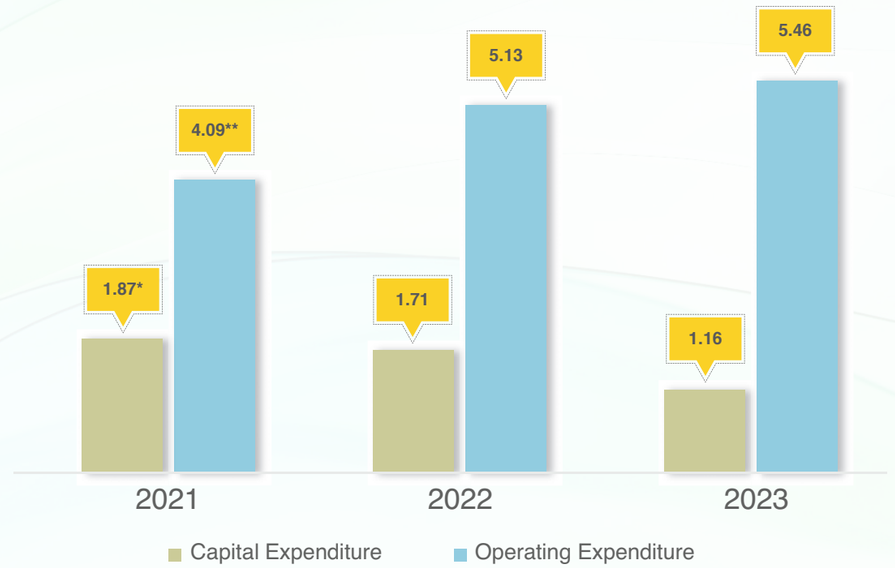
ENEC's rigorous financial management practices demonstrate a commitment to fiscal responsibility and accountability. ENEC has developed the necessary policies and procedures to conduct business in an accountable and efficient manner to ensure the UAE Peaceful Nuclear Energy Program makes optimal use of government resources.

Measures are in place to ensure funds are spent efficiently and within budget. Expenditures are monitored closely, and authorized personnel per the appropriate Delegation of Authority (DOA) approve all expenses before being committed.

Payments are approved based on the limit authorized in the respective Board-approved DOA, which is reviewed and updated periodically.

We monitor the financial performances of the departments within the organization and identify opportunities for cost optimizations.

Direct Economic Value Distributed (AED, billion)



Scope: ENEC, ENEC Operations, ENEC Commercial

** Capex in 2021 is reinstated to exclude the capitalized JV interest*

*** Opex in 2021 is reinstated to exclude depreciation.*

Operating Expenditures for all years are stated with the operating expenditure, employee wages and benefits, sponsorship and Training

The significant growth in revenue is primarily due to the commercial operation date (COD) of Barakah Unit 3 in February 2023. Capital expenditure was lower compared to the previous year as construction of Unit 4 approached completion. However, the rise in operating costs is a reflection of the rapid growth of operation and maintenance costs as ENEC started Unit 1 in 2021, Unit 2 in 2022 and Unit 3 in 2023. The major contributors in the increase in 2023 compared to 2022 is mainly due to increased nuclear fuel consumption for Unit 3, two refuel outages in 2023 versus one in 2022, along with a ramp-up in operations. There was minimal increase in the expenditures related to employee wages. Training and development costs were lower in 2023. However, training costs are anticipated to rise significantly in 2024.

Commitment to Local Community

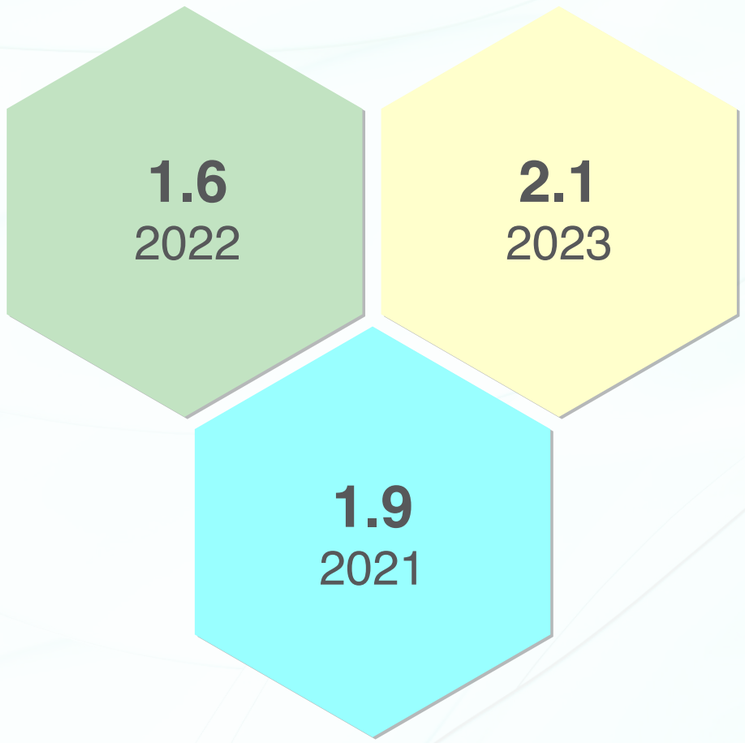
GRI 2016: 413-1

The organization demonstrated its dedication to the local community by making contributions totalling over AED 2.1 million through sponsorship of various activities. These contributions signify the organization's commitment to social responsibility and community engagement, emphasizing its role as a responsible corporate citizen. By supporting local initiatives and events, the organization not only strengthens its ties with the community but also fosters positive relationships and promotes social welfare, reflecting its broader commitment to sustainable development and community enrichment.

The community investments were made in the Al Dhafra Region and Abu Dhabi to support the sustainable development goals.

Community Investments

Donations and Sponsorships (AED, millions)



Sustainable Supply Chain Management

GRI 2021: 2-6, 3-3

Our supply chain operations encompass crucial domains, including Governance, Oversight, Support, and Performance (GOSP), strategic procurement, strategic contract management, operational procurement, inventory management, and warehouse and logistics. These functions are supervised and assessed based on four essential components: skilled personnel, processes (e.g., SAP systems), procedures, and warehouse facilities. Collectively, they ensure efficient planning, sourcing, procurement, receipt, storage, transportation, and issuance of essential materials and services required for the safe and secure operation of the Barakah Plant.

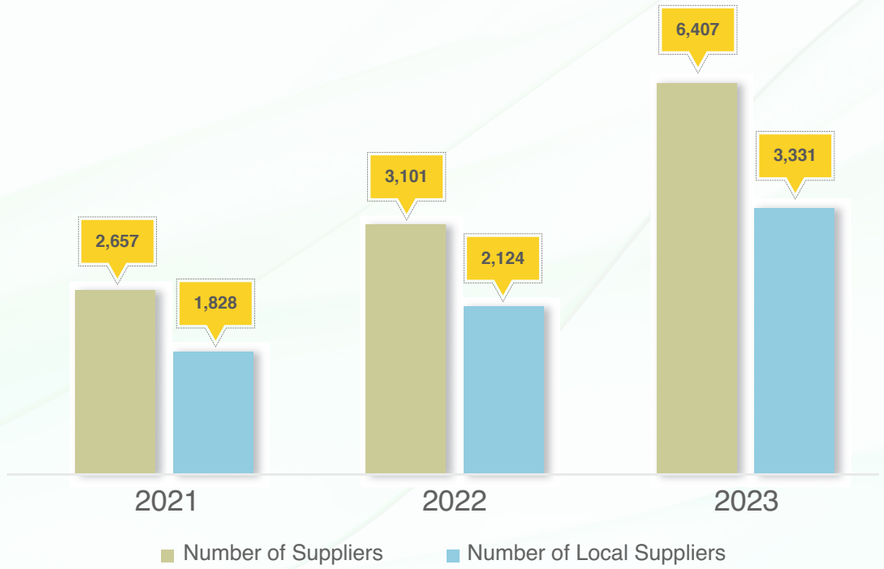
Our supply chain has a vast global reach, spanning the needs of constructing and operating the Barakah Plant and related facilities, such as office buildings and accommodation units. With 6407 registered suppliers actively vying for contracts, our supplier network is extensive and diverse. It includes a wide array of entities, ranging from locally owned Small and Medium-sized Enterprises (SMEs) to large-scale Multinational Companies (MNCs). This diversity underscores our commitment to engaging businesses of varying sizes and backgrounds, reinforcing our operational support through inclusive partnerships.

ENEC and its subsidiaries are tasked with fulfilling their corporate procurement needs, which span a variety of requirements including expert services, ICT equipment, and onsite support services. The Procurement and Supply Chain (PSC) team within ENEC operates as a centralized service to facilitate procurement and contracting processes, ensuring the acquisition of goods and services under favorable contractual terms while complying with legal and regulatory obligations. Moreover, the procurement function aligns with sustainability goals, emphasizing environmentally and socially responsible sourcing practices. ENEC Operations SC, responsible for procuring materials and services specific to plant operations, operates similarly, overseeing procurement and contracting activities to secure optimal terms and conditions while ensuring compliance with nuclear safety and quality requirements. As the Prime Contractor, KEPCO maintains its own supplier and subcontractor network, with the organization assuming oversight responsibilities to ensure adherence to organizational standards and UAE-specific requirements, thereby maintaining quality standards and regulatory compliance throughout the KEPCO procurement process.

Supplier Code of Conduct
https://www.enec.gov.ae/doc/supplier-code-of-conduct-pri-version-211120191-5e04bff053da3.pdf

Contractor HSES Management Procedure
https://www.enec.gov.ae/doc/enec-standard-hse-requirements-for-contractors-60c5f19aac042.pdf

Supply Chain Overview



Scope: ENEC, ENEC Operations, ENEC Commercial

Supply Chain Expenditure

Annual Spend on Suppliers (USD Millions)

Scope: ENEC, ENEC Operations, ENEC Commercial

Labor Practices

The Supplier Code of Conduct, outlines mandatory labor practices that suppliers must adhere to. Compliance with labor laws and the implementation of proper worker welfare practices are deemed essential prerequisites for suppliers to qualify for registration or contract awards.

Previously, suppliers were required to sign a statement confirming their adherence to worker welfare standards, serving as a verification mechanism. However, in response to a decision by the relevant government department, the collection of this explicit compliance statement has been discontinued. This decision stems from the recognition that the provisions outlined in the statement are adequately addressed and covered by existing laws and regulations.

Supplier Risks and Screening

In order to address potential risks and meet our internal standards for Health, Safety, Environment, and Sustainability, we proactively oversee our supply chain to ensure it complies with stringent ethical standards. Additionally, we work towards ensuring that our suppliers adopt the essential environmental, social, and labor practices and procedures to conduct their operations responsibly.

Every supplier registering through our specialized supplier portal must agree to and follow our ‘Supplier Code of Conduct.’ This detailed document outlines the principles and standards of behavior expected from each supplier. It covers a wide range of topics such as fraud prevention, ethical conduct, conflict of interest management, procedures for whistleblowing, legal compliance, and our steadfast dedication to environmental stewardship and sustainability leadership.

Our Sustainable Procurement Guidelines, in alignment with our sustainability policies, objectives, and procedures, serve as valuable resources for integrating sustainability factors into our procurement process. By incorporating sustainability elements into our procurement practices, we actively contribute to advancing the organization’s sustainability goals and building a more sustainable future.

With the Support of QA Team and VQM Team the number of Suppliers that are able to provide services and products of Q Class Nature has seen growth. 180 Suppliers have been added to NASL.

Supply Chain Localization

GRI 2016: 204-1

To maximize the economic benefits for the UAE from nuclear energy and enhance supply security, the organization strives to prioritize the procurement of goods and services from local suppliers whenever feasible. In 2023, approximately 51.9% of registered suppliers were local. **Additionally, 3,482 AED million, equivalent to 68.4% of total procurement spend, supported local suppliers.**

In alignment with these initiatives, ENEC continued the implementation of the In-Country Value (ICV) Program throughout 2023. This program holds significant national strategic importance as it aims to boost the overall expenditure retained within the country. By achieving this goal, the program stimulates investments in business development, nurtures the growth of local human capabilities, and augments productivity within the local economy. Aligned with the UAE's vision, the ICV Program supports the future expansion of market capabilities within the country while fostering strong business relationships between the organization and both local and international companies. **In 2023, the suppliers awarded contracts had an average ICV score of 30 percent.**

ENEC actively backs the Khalifa Fund for Enterprise Development (KFED), an organization committed to advancing and aiding entrepreneurial endeavours in Abu Dhabi. At present, there are 16 registered KFED companies acting as suppliers to ENEC, and we actively promote their involvement in bidding for upcoming contracts. Through collaboration with KFED, ENEC nurtures a conducive environment for local businesses and plays a role in fostering the expansion and evolution of the entrepreneurial ecosystem in the region.

Annual Spend on Suppliers

	2021	2022	2023
Total procurement spending on suppliers based in the UAE (USD millions)	792	517	948
Percentage of registered suppliers that are locally based (%)	68.8	68.5	51.9
Percentage of procurement spending on locally based suppliers (%)	84	73	68.4
Number of KFED suppliers registered (Locally owned SME companies funded by KFED) (Cumulative)	28	28	16

Scope: ENEC, ENEC Operations, ENEC Commercial

Localization Efforts

The Industrial Development Team has worked with multiple companies that can potentially serve the Barakah Nuclear Power Plant through services and products and during 2023 we had a number of suppliers collaboration through partnerships and MoU. Al Masaood and Bertin Technologies have signed a partnership agreement for RP Instruments, and a partnership has been signed between Florence Commercial Agencies and CZEC Operation And Maintenance Engineering Co., Ltd. The Industrial Development team has supported the development of local radiochemistry laboratory accredited ISO17025 and now we are locally testing Boron 10 & Boron 11.

The team has facilitated close to 40 supplier meetings with end users and have facilitated 5 supplier forums during 2023.

Collaboration with Government Entities

The Industrial Development team has been working with UAE governmental entities such as Abu Dhabi Department of Economic Development for localization opportunities, and the Ministry of Industry and Advanced Technology for the In Country Value Program.

Economic Development

GRI 2016: 203-1,203-2

The Barakah Plant's development has significantly contributed to both short-term and long-term economic growth in the Al Dhafra Region and the UAE. The project has created numerous job opportunities and spurred substantial investments in local infrastructure, which will continue to have a lasting impact throughout the plant's lifecycle. Furthermore, it has enabled local businesses to meet the quality standards necessary for participation in the global nuclear supply chain.

Country Value Management Team

The In-Country Value Management (ICVM) team has been assigned the responsibility of establishing robust partnerships with local UAE companies, ensuring their alignment with the high standards of quality and technical proficiency necessary to secure contracts within the UAE Peaceful Nuclear Energy Program. Operating within the comprehensive framework of the Roadmap for plant sustainability, localization, and future business expansion, the BID team is empowered to spearhead the creation of a sustainable and localized nuclear supply chain. Concurrently, they aim to cultivate an environment conducive to attracting international suppliers to establish their presence within the UAE.

In 2023, the ICVM team exhibited steadfast commitment to localizing the supply chain for the Barakah Plant and advancing plant support initiatives. We effectively reached key milestones as outlined in the ICVM Localization Plan, underscoring our dedication to the UAE nuclear program.

Throughout the year, significant strides were made in localizing non-safety related materials and services, integrating local suppliers into the supply chain of the Barakah Plant. Furthermore, the qualification of a radiological protection testing laboratory bolstered our capacity to meet stringent safety standards. Collaboration with esteemed nuclear industries from France and Korea was deepened, nurturing valuable partnerships and facilitating knowledge exchange. In 2023, multiple conferences and events were held, including two France-UAE Supplier Association (E-Fusion) events in the UAE and France, and the Local Supplier Forum which took place in Barakah. These gatherings attracted a considerable number of participants and facilitated constructive discussions among various stakeholders, including international companies, local suppliers, and our representatives.

We actively fostered partnerships between international suppliers and local companies, nurturing mutually beneficial business relationships. Our close collaboration with governmental entities such as the Ministry of Industry and Advanced Technology (MOIAT) ensured alignment of industrial strategies, reinforcing our cohesive approach.

Local Supplier Forum May 2023

Initiatives and Programs

The BID team has emphasized certifying local suppliers with ASME Nuclear Quality Assurance (NQA-1) accreditation and enhancing nuclear-specific capabilities within the local organizations, including testing laboratories.

In 2023, the Quality Assurance (QA) and Industrial Development (ID) teams collaboratively organized one NQA-1 Awareness Sessions, which were attended by 7 local companies. The primary objective of these sessions was to offer comprehensive insights into the implementation of the NQA-1 Management System. By facilitating a common understanding and commitment to the NQA-1 standards within the nuclear industry, these sessions encouraged collaboration and knowledge sharing among participants.

Beyond supply chain localization, the team has proactively participated in plant support and initiatives for business growth. These endeavors span critical domains such as Materials and Engineering Excellence, as well as Knowledge Management. These areas play a vital role in sustaining operational efficiency and driving ongoing enhancements within the plant. Additionally, the team has dedicated efforts to assist new nuclear start-ups, fostering an environment of innovation and collaboration within the nuclear industry.

Knowledge Transfer and Partnerships

GRI 2016: 203-1,203-2

We take pride in supporting local businesses in the UAE and their commitment to nurturing a domestic nuclear energy supply chain. As part of the Barakah Plant, we collaborate closely with UAE companies to ensure their adherence to stringent quality and technical standards essential to securing contracts within the national nuclear energy program. This dedication aligns with the UAE's strategy for economic and industrial development, aiming to enhance the manufacturing sector's output, value, and environmental sustainability.

The UAE's economic growth, coupled with operations at the Barakah Plant, opens up opportunities for local companies to form partnerships with seasoned international counterparts. These collaborations aim to meet the demands of the four nuclear reactor units at the Barakah Plant and other potential entrants in the Middle East nuclear sector. Serving as a bridge between local and international entities, the ID team plays a pivotal role in facilitating their participation in the program, promoting joint ventures, collaborations, and knowledge exchange.

A Memorandum of Understanding (MOU) with Toshiba was signed in 2023, with the aim of facilitating collaboration between Toshiba and Nawah Energy Company (now known as ENEC Operations), to expedite the support of Toshiba when it comes to spare parts and to localize some of Toshiba's operations in the UAE that will provide additional growth to the UAE-based nuclear industry and provide comprehensive support for the operations and maintenance of the Barakah Plant.

Investments in UAE

https://www.enec.gov.ae/suppliers/supplier-education/investor-guide-and-investments-in-the-uae/

05

ADVANCING ENVIRONMENTAL STEWARDSHIP

Commitment to protecting our natural resources and conserving our ecosystem

5.1 ENVIRONMENTAL STEWARDSHIP

Barakah : Preventing millions of tons of carbon emissions annually, securing environmental benefits for the nation now and for generations to come

Nuclear energy plants offer a distinctive advantage in electricity generation by producing power with net negative greenhouse gas emissions. Consequently, the Barakah Plant significantly contributes to the UAE's journey towards achieving Net Zero objectives, effectively reducing its carbon footprint on both national and global levels.

Our Environmental and Sustainability objectives include:

Environmental Management – Adhere to the highest available standards and regulations while working to prevent pollution, preserve biodiversity, conserve water and energy resources, and handle waste effectively.

Preserving our resources, spanning from energy and water to air quality and biodiverse ecosystems, and concurrently diminishing waste and emissions of pollutants, are fundamental for sustaining ecosystem health. This approach ensures human wellbeing and offers sustainable access to vital resources, all of which are indispensable for fostering economic development.

UN SDGs Addressed

Reduce Illness and Death from Hazardous Chemicals and Pollution

By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.

Improve water quality, wastewater treatment and safe reuse

By 2030, improve water quality by reducing pollution, eliminating dumping, and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater, and substantially increasing recycling and safe reuse globally.

Universal access to modern energy

By 2030, ensure universal access to affordable, reliable, and modern energy services.

Global Energy Mix

By 2030, increase substantially the share of renewable energy in the global energy mix.

By 2030, increase substantially the share of renewable energy in the global energy mix

Disclose renewable energy share in the total final energy consumption.

Substantially reduce waste generation

By 2030, substantially reduce waste generation through prevention, reduction, recycling, and reuse.

Integrate climate change measures.

Integrate climate change measures into national policies, strategies and planning and lower the Greenhouse Gas (GHG) emissions by the country.

Environment Management Approach

GRI 2021: 2-27

Our nuclear energy facility has been constructed and operated after receiving environmental permits and clearances from the Environment Agency - Abu Dhabi (EAD). We have diligently adhered to the environmental assessment process set forth by EAD and conducted extensive environmental research, which facilitated the selection of appropriate locations, evaluation of environmental effects, routine environmental monitoring requirements and implementation of appropriate prevention and mitigation measures.

Environmental Risks and Mitigation Measures

GRI 2021: 2-25, 2-27

Our Construction Environment Management Plan (CEMP) for the building phase and the operational Environment Management Plan (OEMP) for the operational phase, both approved by EAD, help us ensure environmental considerations are appropriately addressed. The annual third-party audit of the OEMP was conducted in May 2023, marking the third year of operation. The audit findings indicate that the Barakah Plant is primarily in compliance with the requirements of the EAD operational environmental permit requirements and the OEMP, with no major non-compliance, non-conformity, or deviations recorded during the 2022 reporting period.

Environment and Sustainability Charter, co-signed with the Prime Contractor, is a pledge and signifies the our commitment to implementing the prevention, mitigation, and monitoring strategies outlined in the approved CEMP.

- We conduct environmental performance monitoring and reporting activities diligently, as per the approved environmental studies and in alignment with the environmental permit conditions set by EAD and national regulations.

As part of our commitment to environmental stewardship, we've established an Environmental Management System (EMS) certified against ISO 14001:2015 standards. Notably, in 2023, we documented zero significant environmental incidents. Moreover, we achieved full compliance environmental legislation or permit conditions, underscoring our commitment to maintaining a responsible environmental track record.

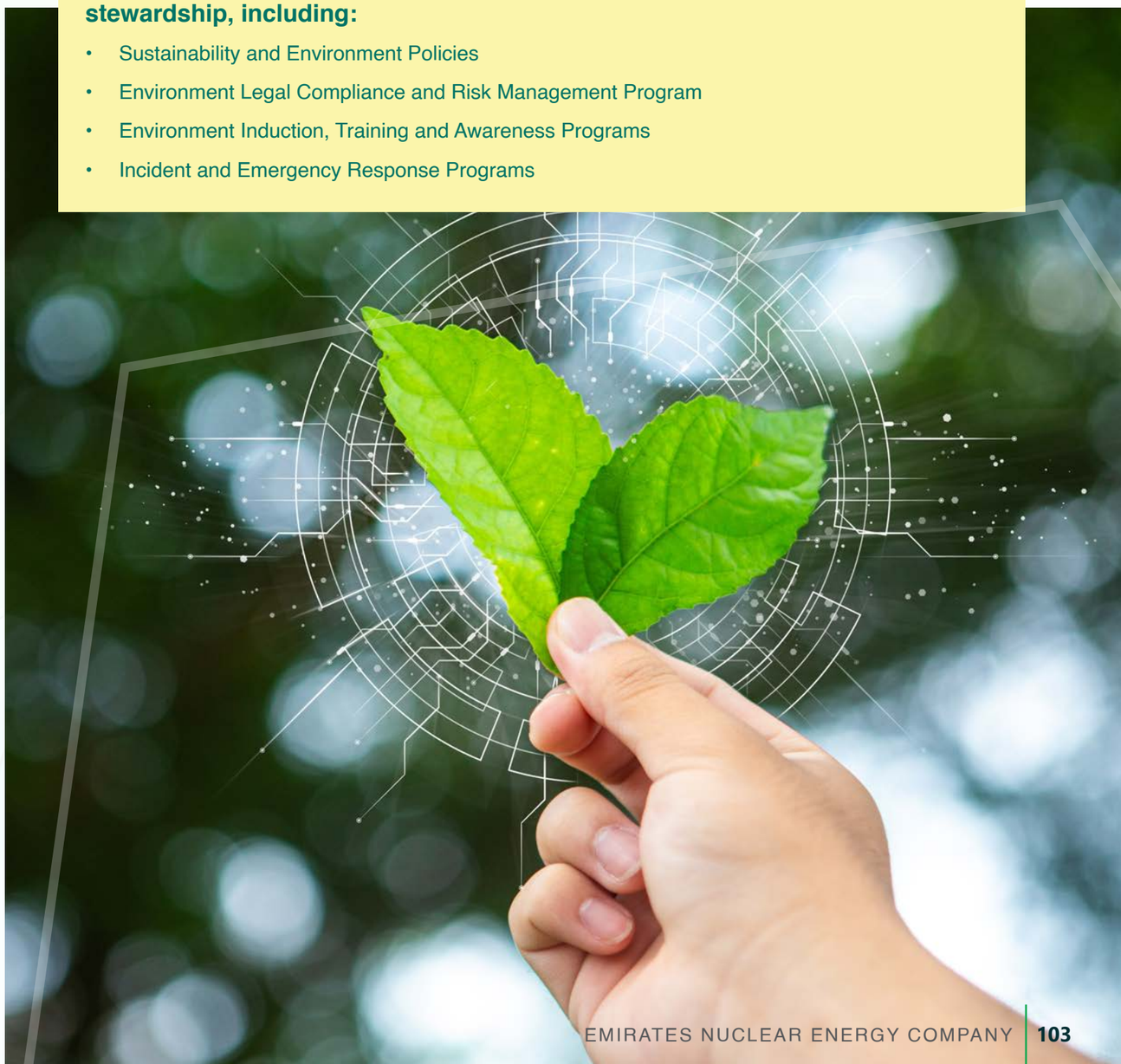
Environment Management System (EMS)

GRI 2021: 2-23, 2-24

We prioritize the implementation of a robust Environment Management program. This commitment is upheld through the establishment, implementation, and supervision of an EMS that adheres to both local and international norms and standards.

The EMS encompasses various essential elements related to environmental stewardship, including:

- Sustainability and Environment Policies
- Environment Legal Compliance and Risk Management Program
- Environment Induction, Training and Awareness Programs
- Incident and Emergency Response Programs



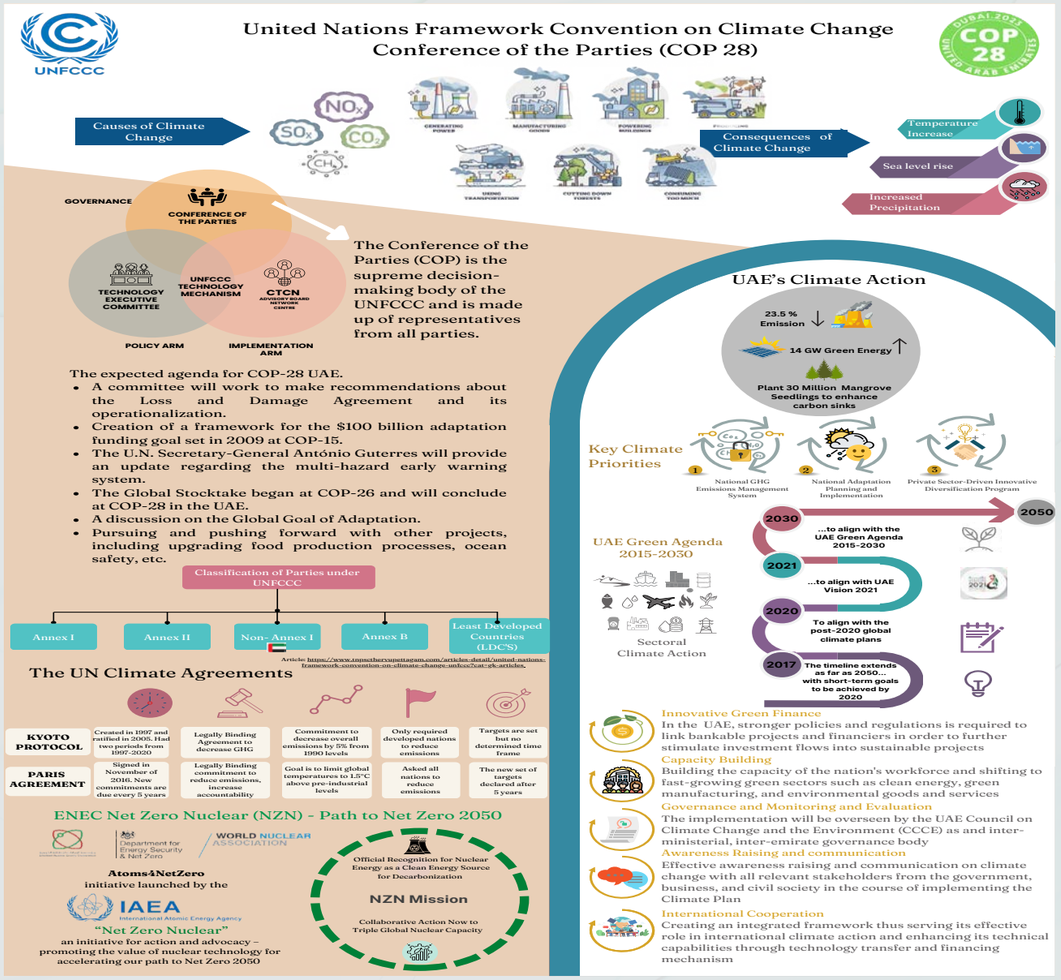
Sustainability Initiatives

Q1-2023 - United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP)

Since 2023 has been declared the ‘Year of Sustainability’ solidifying the UAE’s commitment to addressing current global challenges and promoting sustainable practices at an individual and community level.

The year 2023 also aim to showcase the UAE’s commitment towards fostering a global collaboration in seeking innovative solutions to challenges, such as energy, climate change and other pressing issues related to sustainability.

This was highlighted on a global stage at the 28th edition of the United Nations Framework Convention on Climate Change (UNFCCC) Conference of Parties (CoP) which was held in Expo City Dubai from 30 November to 12 December 2023.

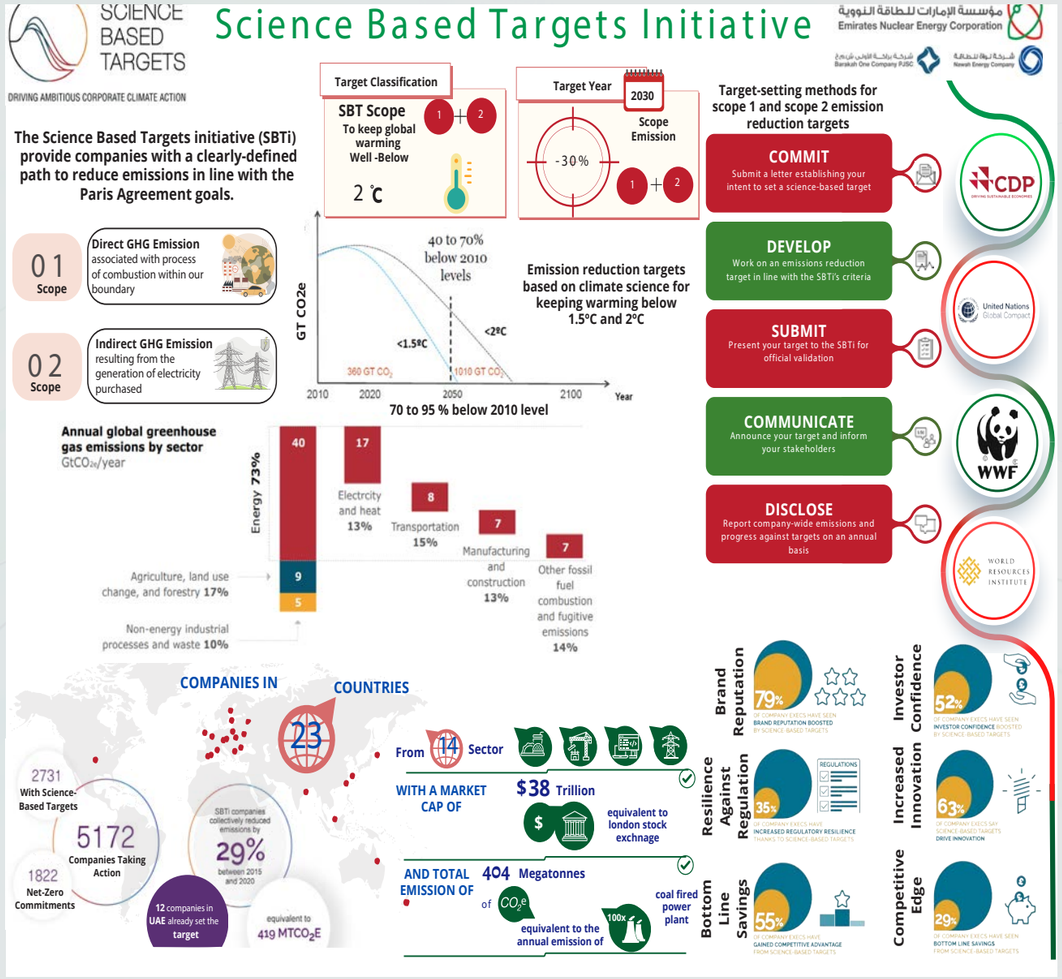


Q2-2023 - Science Based Target initiative (SBTi)

Science-Based Target Initiative (SBTi) brings together esteemed organizations such as the United Nations Global Compact, the World Resources Institute, and Carbon Disclosure Project (CDP) to facilitate the transition to a low-carbon economy.

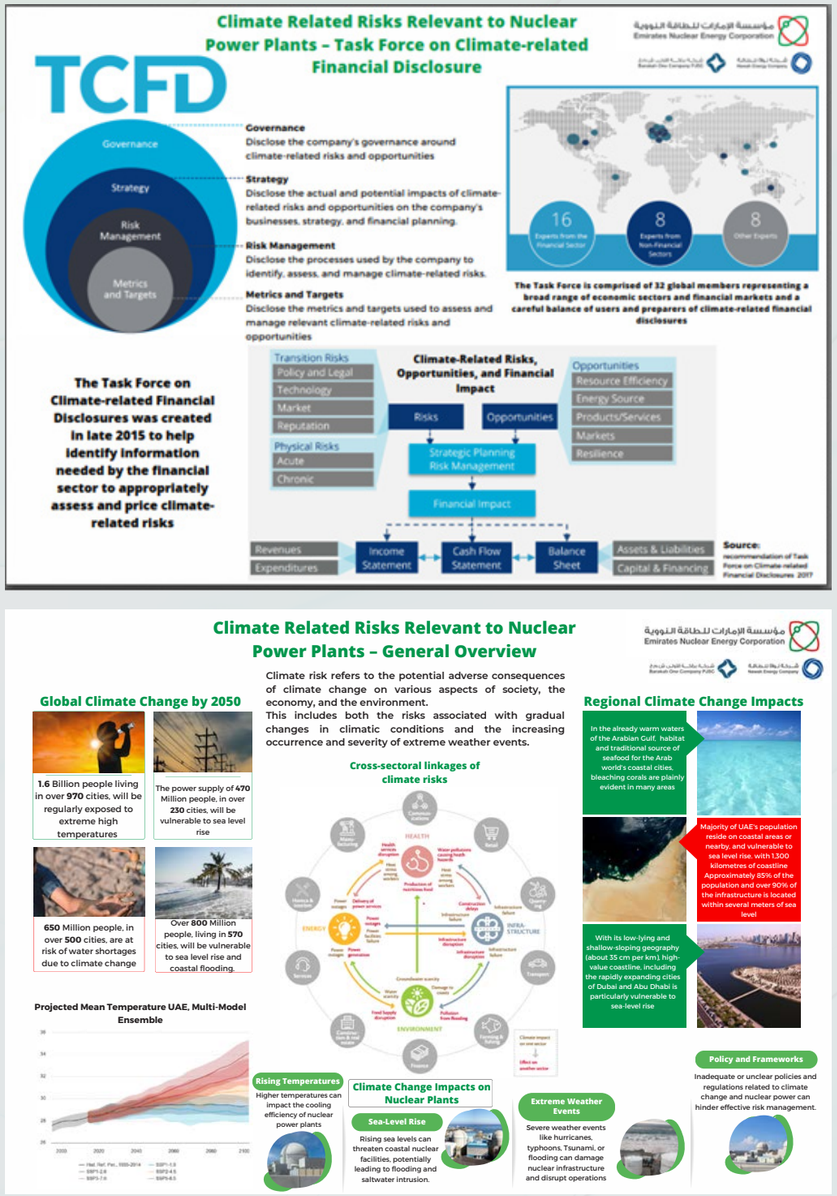
In our session, we explored the significance of science-based targets, which empower companies to set ambitious greenhouse gas (GHG) emission reduction goals based on scientific evidence.

By aligning corporate objectives with the latest climate science, the SBTi empowers businesses to become pivotal players in the fight against climate change and the creation of a sustainable future. The session highlighted the benefits of adopting science-based targets, delve into the methodologies employed, and showcase successful companies that have embraced this transformative initiative.



Q3-2023 - Climate Related Risks Relevant to Nuclear Power Plants – General Overview

An enlightening session was held on the critical intersection of climate change risks and nuclear power plants, with a particular focus on the UAE. As a nation facing unique environmental challenges due to its arid climate and vulnerability to rising sea levels, the UAE is increasingly exposed to the impacts of climate change. In this session, we explored how these climate-related risks pose a distinct set of challenges and opportunities for the UAE's burgeoning nuclear energy sector. We delved into discussions on rising temperatures affecting plant operations, changing precipitation patterns impacting water resources, and the need for robust strategies and frameworks to mitigate the effects of extreme weather events.

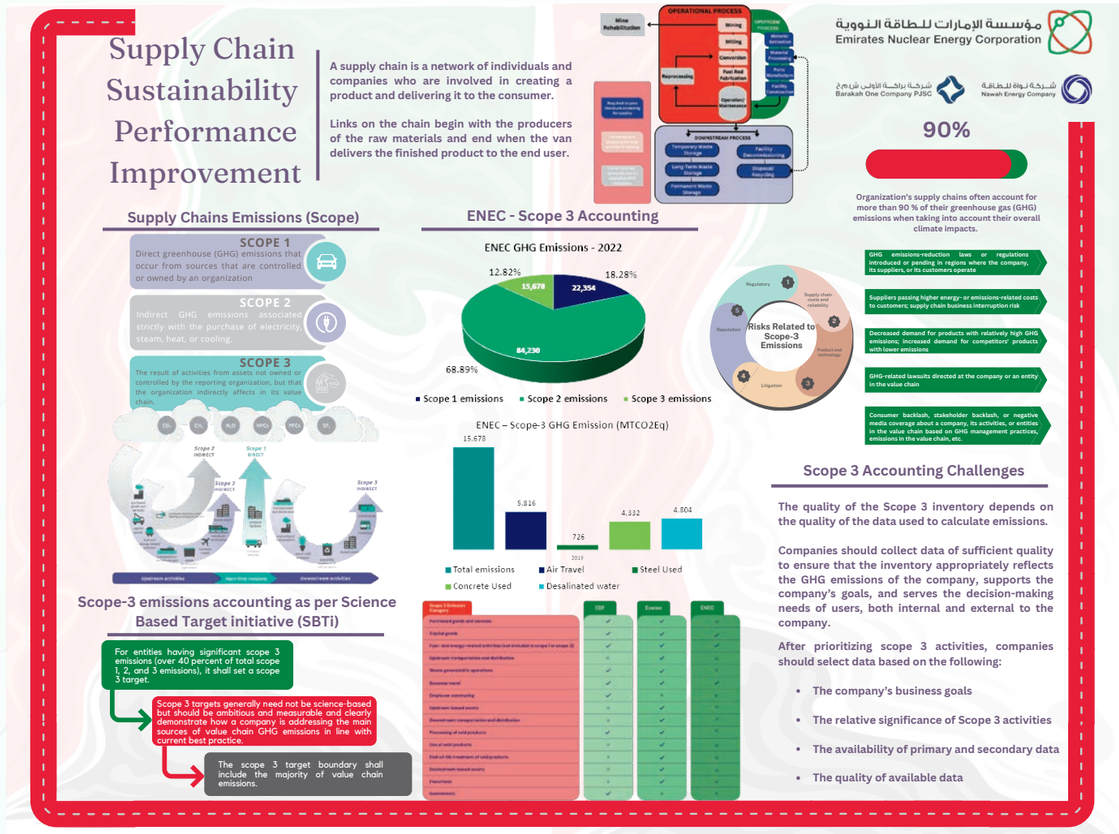


Q4-2023 - Supply Chain Sustainability Performance Improvement – Overview

In an era where businesses are increasingly recognizing the importance of sustainable practices, understanding the role of supply chains in this context is crucial.

In this session, we focused on the often-overlooked Scope 3 emissions—those indirect emissions embedded in our supply chains. As we navigated through strategies, risks, and opportunities in mitigating these emissions, we aimed not only to minimize environmental impact but also to strengthen the overall sustainability of our organization.

From fostering transparency and engaging suppliers in eco-friendly practices to innovating in product design and embracing renewable energy sources, our journey towards sustainability is both challenging and full of promise. We explored these avenues towards our commitment to a more sustainable and resilient supply chain future.



Annual Beach Clean Up

An annual beach clean-up was held in November 2023 with over 85 volunteers from the organization, KEPCO, and other subcontractors. More than 500 kilograms of general waste and recyclables which are mainly wood waste was collected from the beach in the vicinity of the Barakah Plant.

5.2 DECARBONIZATION

As the inaugural nuclear plant in the Arab World, ENEC plays a pivotal role in advancing decarbonization efforts within the UAE. By generating electricity through nuclear energy, ENEC significantly reduces the nation's reliance on carbon-intensive energy sources. This transition to clean energy aligns with global sustainability goals and demonstrates the UAE's commitment to mitigating climate change.

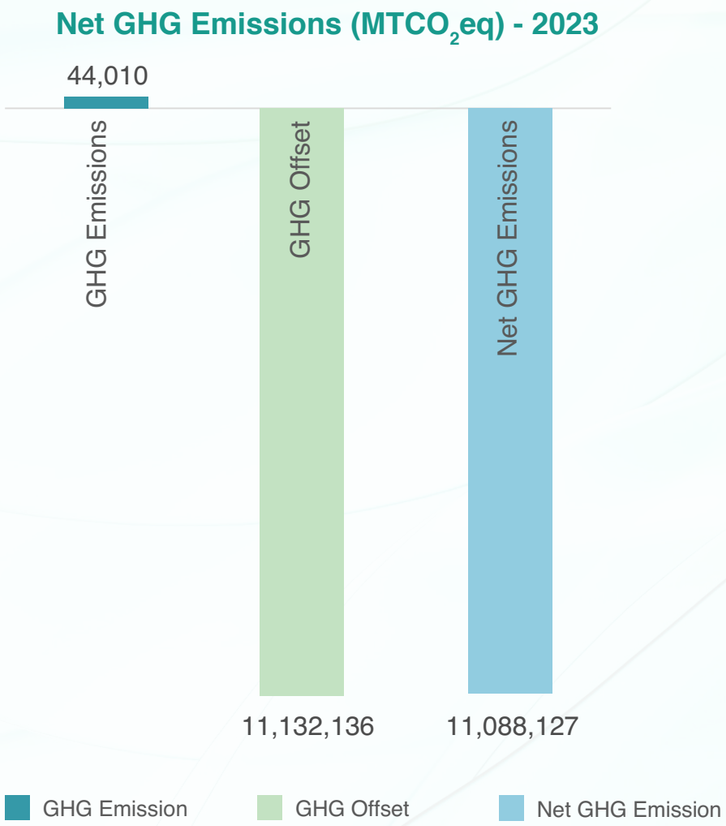
GHG Emissions

GRI 2016: 305-1, 305-2, 305-3

The UAE is actively addressing the challenge of climate change and spearheading a transition towards clean electricity. Through investments in clean baseload energy sources like nuclear, in addition to renewables, our country is developing an energy portfolio that will satisfy the growing demand for electricity while significantly reducing carbon emissions. This strategic approach brings us closer to fulfilling our international obligations for reducing emissions as outlined in the Paris Agreement on climate change.

With 3 units fully operational and contributing significant clean electricity to the UAE grid, Barakah plant's GHG offset and Net GHG emissions for the year 2023 are presented below

Net GHG Emissions ($MTCO_2eq$) - 2023



We tracked direct and indirect emissions from the construction and operation processes of the plant as follows.

- Scope 1 emissions are direct emissions generated from the burning of fossil fuels, e.g., petrol and diesel used for heavy machinery, generators, and light vehicles.
- Scope 2 emissions are generated from the use of electricity and are known as 'indirect' since energy plants elsewhere generate the actual emissions.
- Scope 3 emissions are known as 'other indirect emissions' since they occur outside the boundaries of the organization, such as the supply chain, and come from the provision of products and services.

GHG Emissions ($MTCO_2eq$)

Scope: ENEC, ENEC Operations, ENEC Commercial, Contractors

GHG Emission Intensity

GRI 2016: 305-4

The decrease in the total GHG emissions can be attributed to a significant reduction in Scope 1 emissions. In 2022 Unit 3 was in Start up Process and needed initial steam which was being generated by the Onsite Auxiliary boiler. These boilers run on diesel and consumption is high during the startup. Also, the Emergency diesel generators in U3 were being tested continuously prior to start.

In 2023 the above activities were almost over, and the initial steam required for Unit 4 was drawn from unit-3, hence there is no need for auxiliary boiler to be pressed into service.

All the above factors contributed to the decrease in the amount of diesel consumption in 2023. There was reduction in the usage of electricity due to completion of construction activities.

GHG Emissions Intensity ($MTCO_2eq./person$)

2021	2022	2023
7.63	9.97	5.23

Scope: ENEC, ENEC Operations, ENEC Commercial, Contractors

5.3 ENERGY MANAGEMENT

Effective energy management, consumption, and utilization are crucial for ENEC's net-zero goals, optimizing resource efficiency and minimizing carbon emissions, thus driving sustainable energy practices and supporting environmental objectives.

Energy Consumption

GRI 2016: 302-1, 302-2, 302-4

Implementing the Estidama Pearl Building Rating System demonstrates our commitment to environmental responsibility and contribute to the UAE's efforts to create more sustainable and resilient communities.

Our buildings have implemented a high level of energy and water conservation measures in its design and construction as required by the Estidama Pearl Building Rating System. The design measures improve energy saving during the entire operational life of the building.

- The HQ building, located in Masdar City, has achieved a 4 Pearl design and construction rating under the Estidama Pearl Building Rating system.
- The guesthouse at the Barakah Plant has also received a 2 Pearl Estidama rating for design and construction. Along with our contractors, we have set internal targets to reduce their energy consumption. We plan and implement the monthly monitoring program.
- We utilized gasoline and diesel as direct energy sources during the construction phase.
- Electricity imported from the national grid, indirect energy use, is used for lighting, equipment, and ancillary buildings at the Barakah Plant.

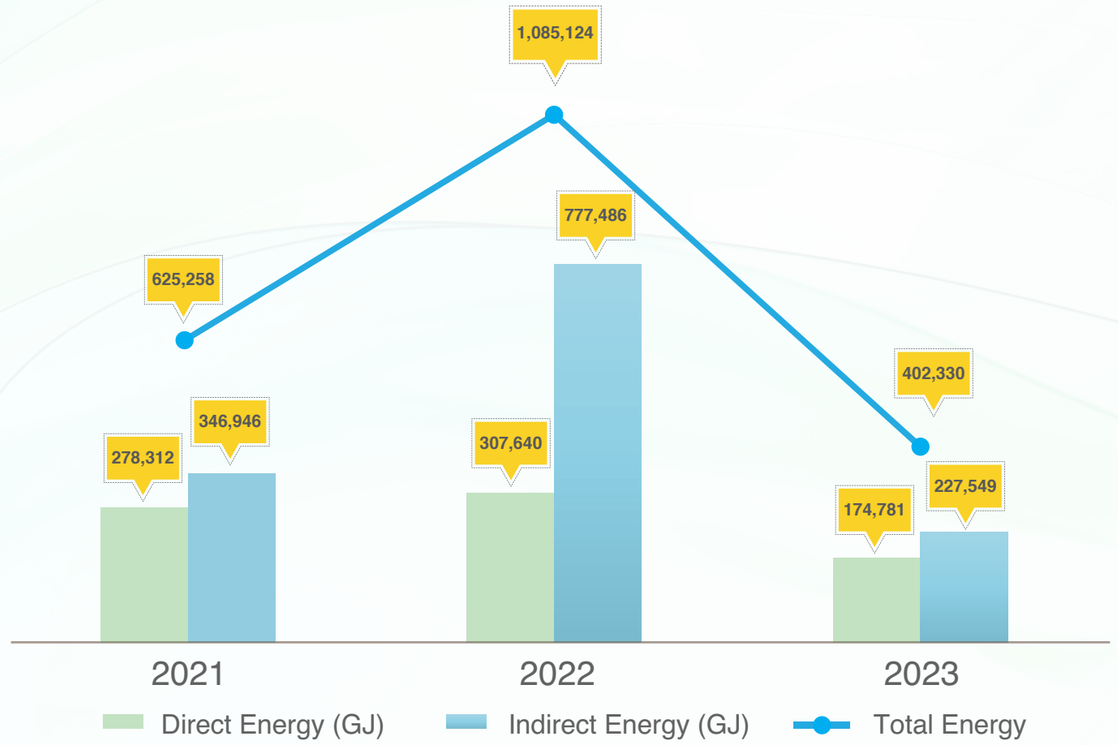
In 2023, there was reduced diesel consumption compared to previous years and reduced outages, which resulted in, reduced indirect energy usage. The energy intensity that is per person consumption for ENEC significantly reduced owing to water and energy conservation campaigns , inspections and subcontractor demobilization at Barakah plant.

Table below summarizes the energy consumption across ENEC

Energy			
	2021	2022	2023
Total energy consumption (Gigajoules – GJ)	6,25,258	10,85,124	402,330
Energy intensity (GJ/person)	71.83	88.51	47.82
Direct Energy (GJ)	2,78,312	3,07,640	174,781
Indirect energy (GJ)	3,46,946	7,77,485	227,549

Scope: ENEC, ENEC Operations, ENEC Commercial, Contractors

Energy Consumption (GJ)



5.4 MATERIAL USE

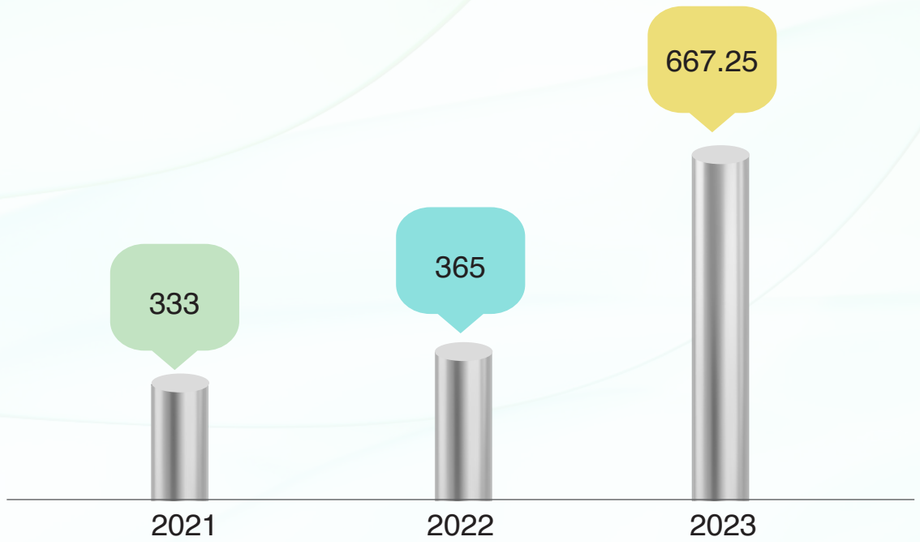
GRI 2016: 301-1

The construction of a nuclear energy plant necessitates the extensive use of critical materials such as nuclear-grade concrete and steel, which are critical to the facility's safety and reliability. Material consumption in 2023 saw a decrease with the completion of major construction activities. The use of concrete was mainly for micro pilling works, gantry crane rail settlement repair activity at unit 4 and mosque repair works.

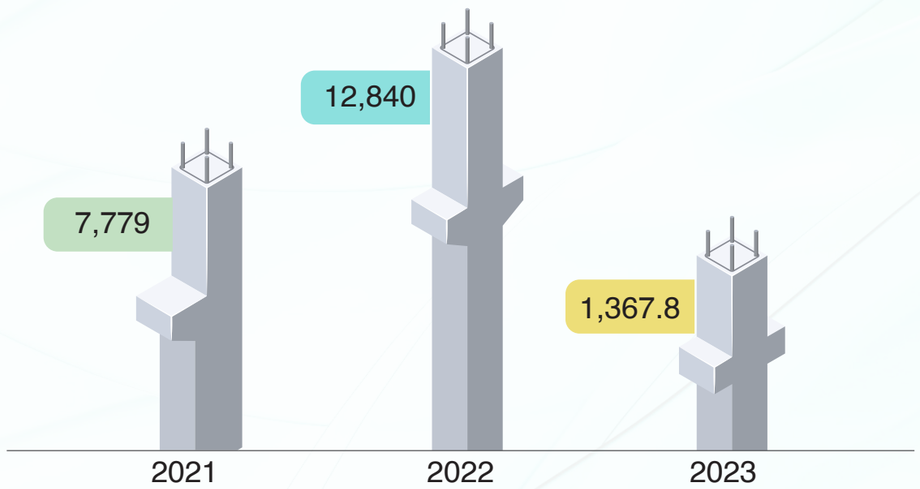
In addition to rigorously monitoring the vast quantities of materials needed for construction, we also extensively monitor the use of office supplies such as paper, plastic water bottles, and printer cartridges.

Material Used

Steel Used (metric tons)



Concrete Used (cubic meters)



5.5 WATER AND WASTEWATER MANAGEMENT

Water

GRI 2016: 303-1,303-2

Water is an essential resource for UAE and its effective management is a priority.

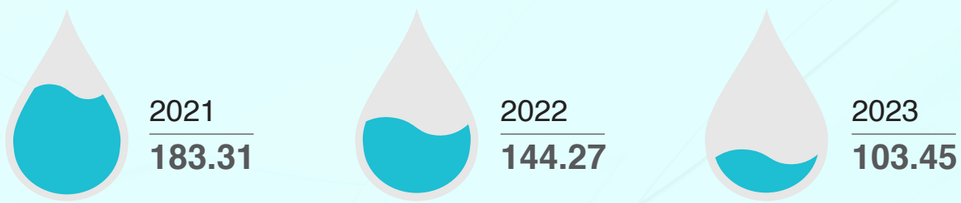
Regular testing of water samples is conducted in the laboratory every month by the organization to verify the purity of the water. Our buildings and the contractor staff accomodations at the Barakah Plant are the primary users of potable water.

We utilise the Treated Sewage Effluent (TSE) from the onsite wastewater treatment plant, which meets the standards set by DoE. At the Barkah facility we use TSE for landscaping for the buildings, contractors employ the TSE for dust control and suppression during construction activities.

Water Consumption (cubic meters)

Scope: ENEC, ENEC Operations , ENEC Commercial and Contractors

Water Intensity (cubic meters/person)



Wastewater

GRI 2016: 303-2, 303-4

Our non-hazardous liquid waste consists of greywater and sewage from Barakah business buildings as well as contractor and staff residences. Construction and maintenance activities generate hazardous liquid waste, such as oils, paints, and so on. All non-hazardous liquid waste undergoes treatment in the onsite wastewater treatment plant.

In 2023, the recycling of water was reduced due to manpower demobilization. The water and energy campaigns and regular inspections resulted in reduced wastewater generation. We treated 100 percent of the non-hazardous wastewater to meet the standards outlined by the Department of Environment's (DoE) Recycled Water and Biosolids Regulations 2021. We utilized 80 percent of the Treated Sewage Effluent (TSE) for irrigation purposes and allocated the remaining 20 percent for dust suppression activities.

Wastewater

	2021	2022	2023
Wastewater recycled offsite (liters)	0	0	114
Wastewater recycled onsite (million liters)	1,544	1,399	894.62
% of wastewater recycled onsite	100	100	100
Hazardous Liquid waste disposed (liters)	136,040	NA	176,270
Hazardous liquid waste recycled (liters)	134,430	107,400	48,640

Scope: ENEC, ENEC Operations, ENEC Commercial, Contractors

5.6 WASTE MANAGEMENT

GRI 2020: 306-1, 306-2, 306-3, 306-4, 306-5

The circular economy represents an economic framework designed to minimize waste while maximizing the value derived from resources. This approach aims to reduce waste, enhance efficiency, and promote sustainability by continuously circulating resources within the economy.

Our offices at the Barakah Plant, along with our contractor, and staff accommodations, are the principal source of municipal solid waste generation. Construction activities at site results in the generation of construction waste. Being a nuclear facility, the waste generated can be classified into Hazardous, Non Hazardous and Radioactive waste.

Non-Hazardous Waste

ENEC and its subsidiaries, as well as subcontractors, worked together to divert 72.08% of waste from landfills. As the construction phase concludes, more construction waste generated from demolishing was recycled, which led to better recycling percentage compared with 2022.

Non Hazardous Waste

	2021	2022	2023
Non Hazardous waste disposed (metric tons)	10,608	6,600	7,586.76
Non Hazardous waste recycled (metric tons)	4,888	6,010	20,595.46
% of total non-hazardous waste recycled	31.5	47.7	73.08

Scope: ENEC, ENEC Operations, ENEC Commercial, Contractors

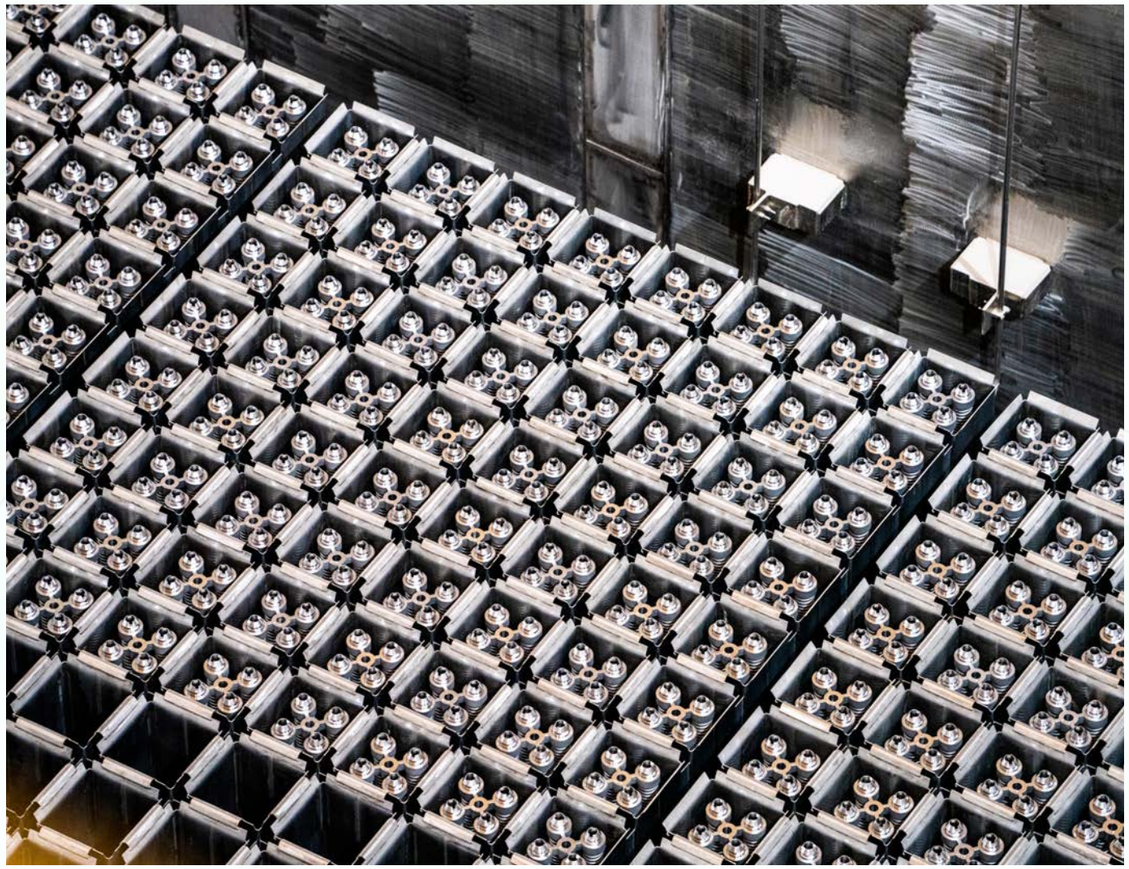
Hazardous Waste

Construction activities and use of construction materials have resulted in the generation of hazardous waste. The hazardous waste is either recycled or disposed of through Tadweer approved environmental service providers. In 2023, the hazardous waste generated from waste oil from the heavy equipment workshop, pre-commissioning work, and repair work were recycled.

Hazardous waste

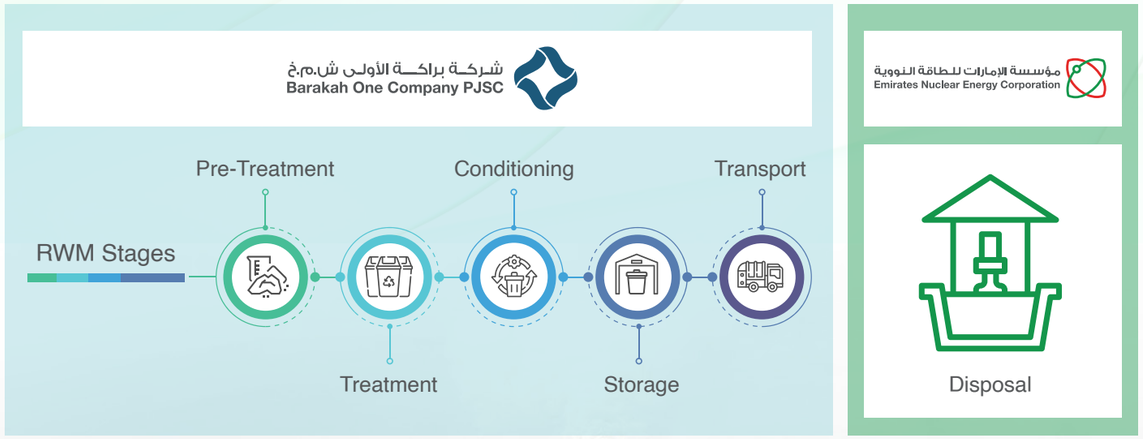
	2021	2022	2023
Hazardous waste disposed (metric tons)	202.62	487	149.532
Hazardous waste recycled (metric tons)	30.22	107,918.38	62.50
% of total hazardous waste recycled	13	99.55	29.48

Scope: ENEC CPO, ENEC Operations and Teslam



Radioactive Waste

Radioactive Waste is defined as any material that contains radionuclides at concentrations above a threshold established by the UAE legal and regulatory framework and for which no further use is foreseen. A nuclear energy plant typically generates various forms of radioactive wastes that require safe handling, containment, and isolation in accordance to their characteristics. The UAE Peaceful Nuclear Energy Program follows and implements international best practice in the field of radioactive waste management to ensure the safety of people and the protection of the environment. In support of this, ENEC Operations developed a Barakah NPP Integrated Waste Strategy, that holistically addresses the management of each type of radioactive waste generated at Barakah in a safe and secure manner.



Radioactive Waste Management Program

GRI 2020: 306-1, 306-2

ENEC's Radioactive Waste Management Division (RWM) is a seeding organization for the national Radioactive Waste Management Organization – an entity to be designated by the Cabinet to ensure safe, secure, and sustainable management of spent fuel and radioactive waste in a manner that protects workers, public and the environment, now and in the future, without imposing an undue burden on future generations.

ENEC RWM Division aims to lay down the groundwork to establish the final disposal solutions for the UAE Nuclear Energy Program.

Radioactive Waste Management Program is designed to ensure that all radioactive waste meets the requirements for handling, transporting, storage, and disposal, as stated in the applicable national and international regulations. The primary goal is to minimize the impact of radioactive waste generated through all stages of management, such that it can be safely disposed.

The organization has established the **Radioactive Waste Management Advisory Committee**, which consists of senior international experts, working as an internal group reporting directly to ENEC MD&CEO tasked with providing:

- Strategic advice and guidance toward the development and implementation of a robust UAE national long-term spent fuel and radioactive waste management program.
- Advice and recommendations to safely, timely, securely, and economically manage radioactive waste arising from within the UAE Peaceful Nuclear Energy Program.
- Advice on utilizing international expertise, best practice, partnerships and collaborations with effective and relevant international radioactive waste management programs.

The majority of radioactive waste in terms of volume is Low Level Waste, which is generated from day-to-day operations and during refuelling outages consisting of personal protective equipment (Gloves and overalls), contaminated tools, filters, and ion exchange resins.

Since initial criticality until the end of 2023, 44.8 Metric tons of Low-level waste (LLW) radioactive waste was generated, 24.6 Metric tons of LLW generated in 2023 alone.

An Integrated Waste Strategy (IWS) was developed for the effective and efficient management of identified waste streams from the operations of the Barakah NPP. This strategy ensures the alignment of the pre-disposal and disposal programs ensuring alignment and making sure that waste packages meet future disposal requirements.

We implemented an active waste minimization communication plan for all operations and maintenance outages across all four Units. As a result, it was recommended to improve the liquid, gas, and solid waste system operations, which will reduce waste generation.

Guidelines and Regulations

We follow international and national guidelines and regulations for radioactive waste management.

Some of the significant regulations related to radiation protection and material disposal are

FANR – Federal Authority for Nuclear Regulation. FANR regulates the design, siting, construction, operation and decommissioning of nuclear energy plants in the country. It also regulates all radioactive material and radiation sources. ENEC follows the guidelines mandated by FANR for radiation protection and predisposal radioactive waste management in nuclear facilities, Safe transport of radioactive materials, decommissioning of facilities and disposal of radioactive waste.

IAEA - International Atomic Energy Agency. IAEA safety standards are international safety standards that cover nuclear and radiation applications utilized for peaceful purposes, they have been used as a guidance for the operations of nuclear facilities.

OECD-NEA – OECD Nuclear Agency is an intergovernmental agency that facilitates co-operation among countries with advanced nuclear technologies infrastructures to seek excellence in nuclear safety, technology, science and law.

Collaborations

ENEC RWM and ENEC Operations RW program is working towards the development of **Enterprise Radioactive Waste Management Excellence plan –** in collaboration with ENEC Corporate Oversight Division (ECO), providing an integrated plan for the organization defining action to achieve excellence in radioactive waste management.

ENEC Operations RW Program team formalised as part of the Plant Support Directive with a primary function of providing governance, oversight and support to the plant RW team and to ensure alignment between the pre-disposal and disposal programs and ensure cross-functional alignment with regards to the implementation of Barakah's Integrated Waste Strategy (IWS).

Radioactive Waste Management Working Group integrates concerned national stakeholders in one platform to support the development of a reliable radioactive waste management program and ensure the long-term and safe management of radioactive waste generated within the UAE, while promoting common understanding among stakeholders through a seamless platform by integrating information, tracking progress, and discussion of issues and challenges with respect to radioactive waste management.

Managing Spent Nuclear Fuel

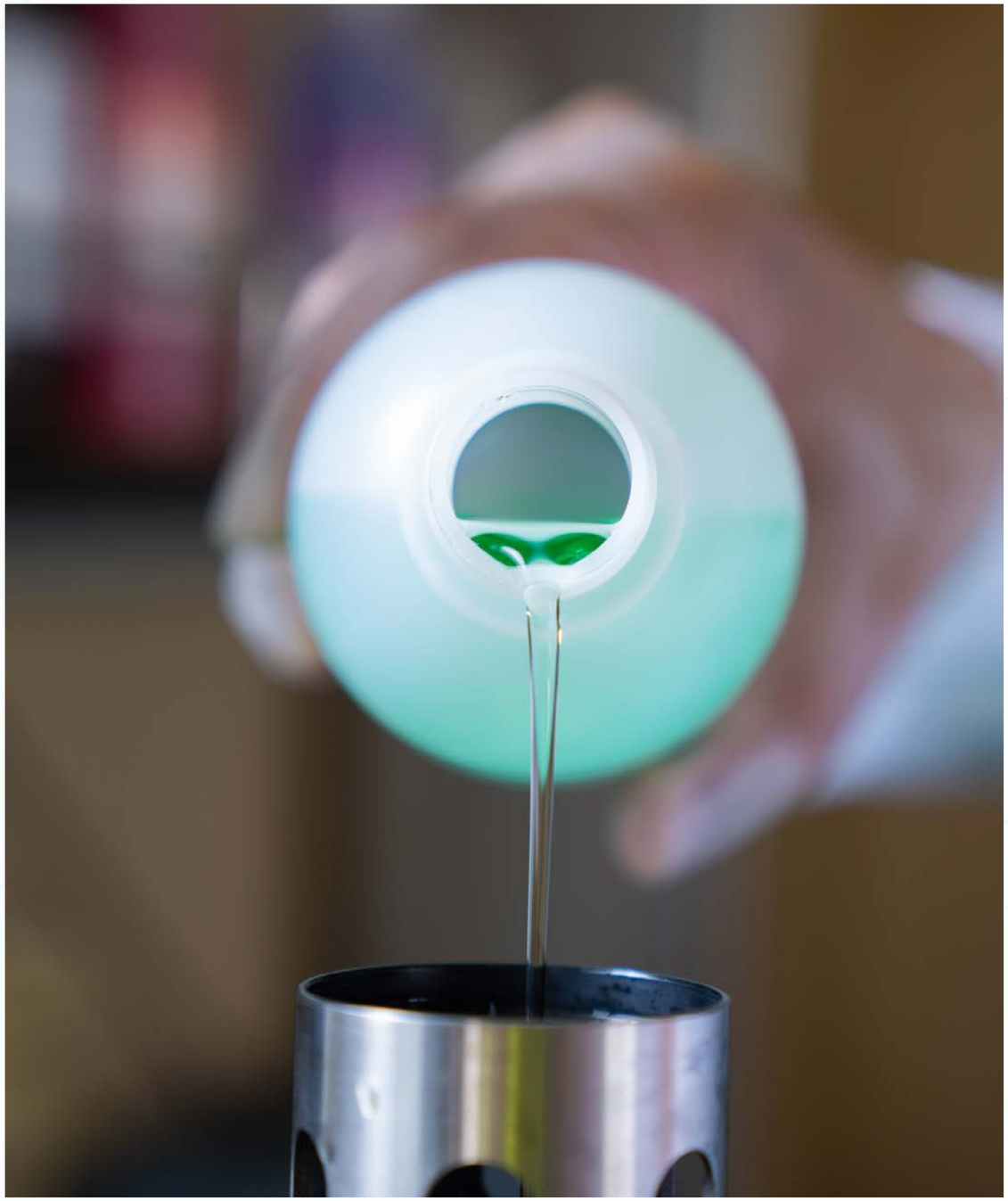
GRI 2020: 306-2

A nuclear reactor can require more than 200 fuel assemblies. The fuel assemblies are replaced when they no longer produce enough heat. At Barakah NPP, about one-third of a reactor's fuel is replaced every 12 to 18 months during refuelling outages. Once the fuel has been removed from the reactor, it is known as spent nuclear fuel. At first, it is moved to the spent fuel pool located in the auxiliary building of the plant to cool. While the fuel only needs three to five years to be sufficiently cooled for transportation, the spent fuel pool at Barakah NPP is built with the capacity to store 20 years' worth of spent fuel before transportation activities to a long-term storage facility need commence. When the fuel is removed from the spent fuel pool, it is stored in concrete and steel containers called dry casks.

All methods for storing spent nuclear fuel are undertaken in strict accordance with best practices and guidelines developed by regulatory agencies around the world and the IAEA.

Radiological Monitoring Laboratory

In August 2014, the Environmental Radiochemistry Laboratory started to establish background radiation baseline for the Barakah Plant, in accordance with the Radiological Environmental Monitoring Program (REMP) section of the Offsite Dose Calculation Manual (ODCM). This program monitors the plant's operational activities to ensure the health and safety of the public. The Lab sends semi-annual reports to FANR, containing the results of radiological tests performed on samples including soil, sediment, fish, invertebrates, air, particulate and gaseous drinking water, seawater, surface water, and ground water. Test results have been reported for 2023 and all results indicate that radiation levels are within acceptable limits.



5.7 BIODIVERSITY

GRI 2016: 304-1,304-2,304-3

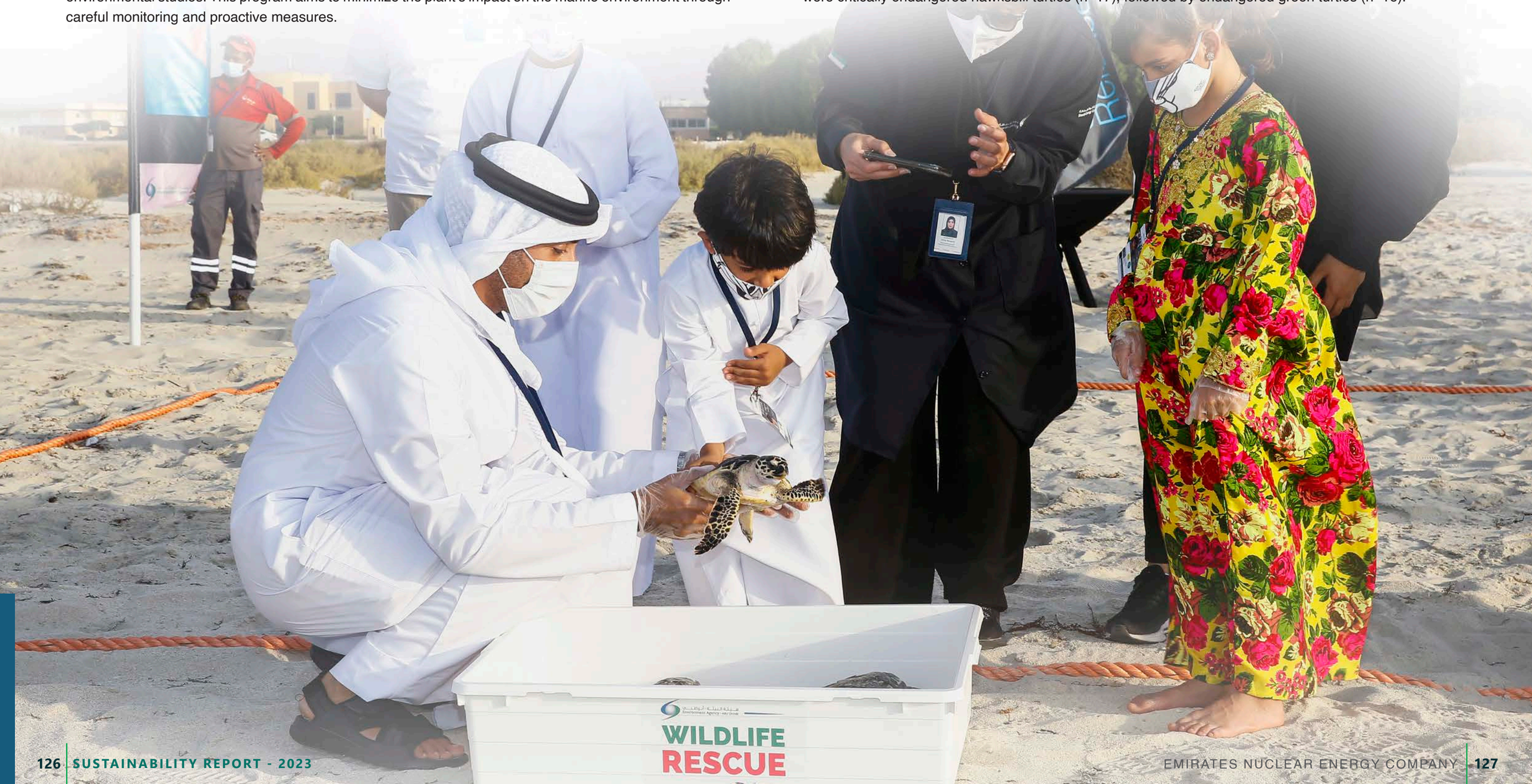
Biodiversity serves as a critical measure of ecosystem health, making it imperative to monitor closely to minimize any adverse effects on the populations of flora and fauna in the vicinity of our operations.

The Barakah Plant employs seawater for the cooling of its nuclear reactors and subsequently releases slightly warmer water back into the marine environment. This process may lead to potential issues such as marine habitat loss, species displacement, and impacts on marine sediment quality. To address these concerns, we have implemented a comprehensive monitoring and mitigation program outlined in the environmental studies. This program aims to minimize the plant's impact on the marine environment through careful monitoring and proactive measures.

Marine Wildlife Management

Our turtle rescue initiative outlines the resources we have on hand, including facilities, equipment, and dedicated rescue teams, all aimed at saving stranded and distressed turtles at the Barakah Plant. All rescued sea turtles were handled in a turtle holding facility, at the Barakah Plant, before being transported to The National Aquarium (TNA) in Abu Dhabi for treatment and rehabilitation, except 2 healthy sea turtles that were released back to the sea.

In the year 2023, we found 70 sea turtles; 33 of them were found alive. The majority of the rescued turtles were critically endangered hawksbill turtles (n=17), followed by endangered green turtles (n=16).



06

EMPOWERING OUR PEOPLE

Our commitment to ensuring the safety and development of our people

6.1 ENTERPRISE HEALTH AND SAFETY

'Safety is the overriding priority' at the United Arab Emirates Peaceful Nuclear Energy Program. We are committed to meeting the highest safety and quality standards as we seek to provide the nation with clean and sustainable nuclear energy.

Our sustainability objectives related to safety include:

Occupational Safety and Health Management System (OSHMS) – safeguard the occupational health and safety of all employees, contractors, and the local community.

Security – to ensure the security of the public, our employees, and contractors, through the design and execution of world-class security processes and systems, and the development of a robust culture of security.

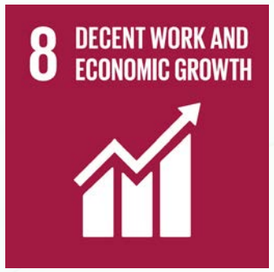
We have a social responsibility to maintain a healthy community and protect our employees health and safety. Our Sustainability Policy and Occupational Safety and Health (OSH) Policy explicates our commitment to working sustainably while efficiently managing environmental, health, safety, and security concerns throughout the nuclear energy plant lifespan.

UN SDGs Addressed

Reduce mortality from non-communicable diseases and promote mental health.
By 2030, reduce by one-third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being.

Reduce Illness and Death from Hazardous Chemicals and Pollution
By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination by hazardous chemicals.

Reduce Road Injuries and Death
By 2030, halve the number of global deaths and injuries from road traffic accidents.



Protect labor rights and promote safe working environments
Protect labor rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.

Occupational Safety & Health Management System (OSHMS)

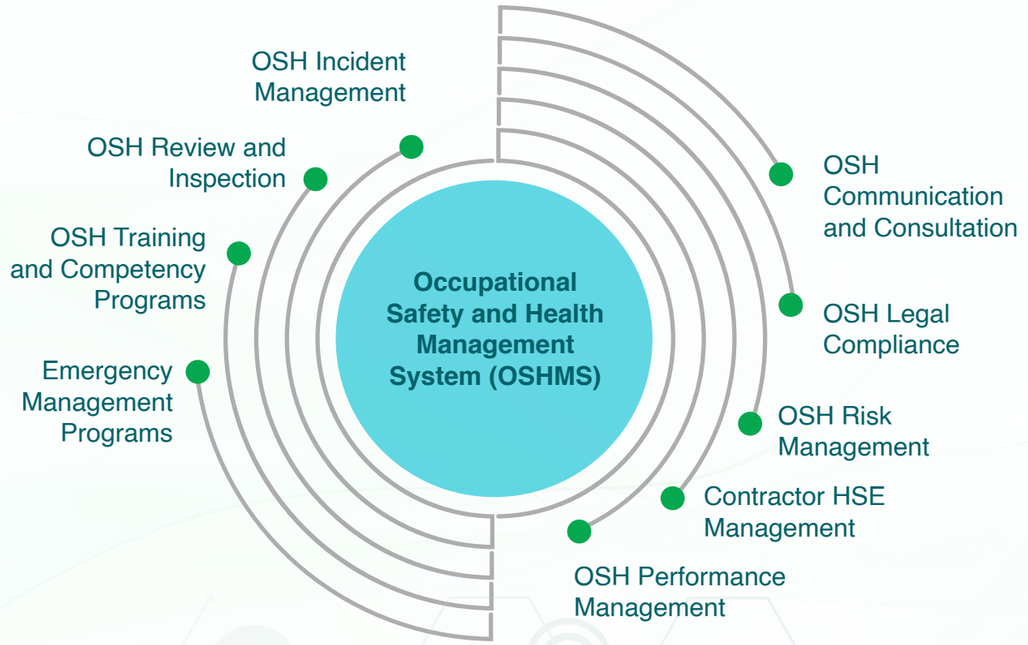
GRI 2021: 2-23, GRI 2018: 403-1,403-2,403-3,403-8

The Enterprise Health & Safety (H&S) Department, which reports to the Vice President - Licensing, Safety, and Security under the Nawah Chief Nuclear Officer (CNO) Organization, oversees developing and implementing Enterprise H&S Programs for ENEC, ENEC Operations and ENEC Commercial. We make extensive efforts to ensure our employees occupational health, safety, and security at the headquarters and Barakah Plant facilities. Some of the top priorities of this function include:

- Develop and update H&S policies, Codes of practice, procedures, risk management activities, audits, and H&S compliance in construction and Operations activities.
- Ensure compliance of H&S Management System (MS) with applicable laws, regulations, and policies; and monitor these laws and regulations to recommend changes in the H&SMS, as appropriate.
- Ensure effective safety communications, prepare trainings and awareness programs, and dis seminate by working with the Enterprise Communications (EC) Department.
- Support and advise Managers/Directors in all other departments to ensure the promotion of a safety culture throughout the organization, including contractors and suppliers.

Safety at ENEC
https://www.enec.gov.ae/regulation/safety-at-enec/culture-of-safety/

We established a complete Occupational Safety and Health Management System (OSHMS) to integrate every facet of health and safety. Our OSHMS outlines the pillars on which we operate, including OSH policies, procedures, and codes of practice that provide a methodical approach to OSH. Key factors include:



Since 2010, our OSHMS has continuously evolved to meet regulatory obligations, international standards, and to address emerging risks and opportunities. Certified to ISO 45001:2018, our OSHMS has garnered the Certificate of Approval from the Abu Dhabi Centre for Occupational Safety and Health System (OSHAD).

Various teams, such as Corporate Health & Safety (H&S), Project H&S, Plant H&S, and Enterprise Facility Support Services HSE, oversee and monitor the OSHMS, ensuring comprehensive management across different aspects of our operations.

Occupational Health and Safety Awareness

GRI 2018: 403-3,403-4,403-5, 403-6,403-7

Safety

The Enterprise H&S campaigns during 2023 covered heat stress management and road safety campaigns.

'Be Seen' our road safety awareness campaign, focussed on pedestrian safety within the Barakah Nuclear Power Plant (BNPP). This initiative aligns with the broader agenda of KEPCO's campaign, emphasizing the paramount importance of road safety across all operational areas.

The Heat Stress campaign incorporated several measures, such as improving access to drinking water, distributing awareness materials, conducting in-plant awareness sessions, and integrating relevant topics into meetings.

Safety Hub

Safety Hub is a dynamic learning centre as well as a new avenue for promoting safety, sharing critical lessons learned from the past incidents, and encouraging an interactive knowledge sharing environments for all. It has been established to provide a fresh perspective on safety by sharing insights and lessons learnt with a focus on the requirements and the consequences of deviating from the established standard safety practices.

The Safety Hub is serving as an awareness venue and interactive experience for workers and plant functions who work at our plant. Visitors will have the opportunity to explore history of the themes, objectives, and real-life lessons through interactive sessions.

Safety Standards Pocket Guide

The Enterprise H&S has published (electronic and printed copies) the 'Safety Standards Pocket Guide' featuring commonly used safety procedures and best practices derived from the functions across the Enterprise. The pocket guide is made available to all employees through respective department focal points and issued to new joiners during the onboarding process.

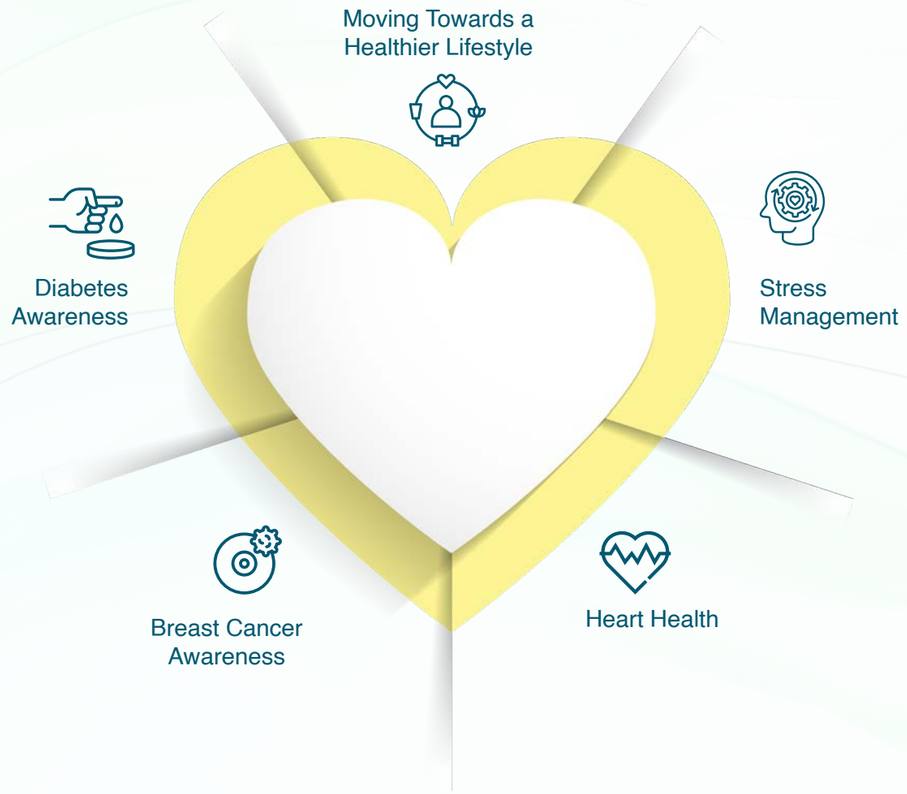
The pocket guide is a compilation of several Barakah specific procedures that help achieve the organization's goal of 'zero-harm'. This pocket guide is a useful H&S resource and can be used as a quick reference on the job.

The pocket guide is targeted for providing essential H&S information to the organization employees and contractors. Basic safety rules should be followed every day, before, during, and after every job. The purpose of the pocket guide is to make employees and contractors familiar with the minimum safety controls prior to entering the plant facilities to perform work.

The best way to achieve and sustain excellence in all aspects of nuclear energy plant operations is to effectively institutionalize and reinforce fundamental behaviours that are important to safe operations through quick reminders using tools such as the pocket guide. The pocket guide facilitates alignment of organizational processes / values in achieving facility safety goals and achieving safe behaviours of individuals performing their jobs.

Health

Enterprise Health & Safety (H&S) orchestrated dynamic virtual health awareness sessions, addressing both mental and physical well-being through awareness sessions. Some of the sessions conducted were on: The organization conducted 25,377 training hours aimed at enhancing health and safety awareness among its employees.



Health & Safety Grievances

GRI 2018: 403-2, GRI 2021: 2-25

The Action Request (AR) program empowers employees to report safety concerns and near-miss incidents proactively, assigning responsibility for corrective actions to the relevant party. All employees have a duty to halt work activities upon identifying existing or potential safety hazards, and health-related issues can be reported through the AR program.

The Employee Grievance Committee is dedicated to addressing and resolving employee grievances promptly. Contractors and subcontractors utilize the Safety Observation Program to report well-being issues, while workers have the option to submit cards into designated boxes located throughout the Barakah Plant. In 2023, no complaints about well-being were registered through this program.

Health and Safety Performance

Heat Stress

GRI 2018: 403-8, 403-9

Heat stress stands out as a top occupational health concern in our region, especially for those working outdoors during the scorching summer months. To combat this, rigorous control measures are in place to ensure the hydration and heat stress management of all employees, contractors, and subcontractors. Despite our stringent protocols, one contractor employee experienced a heat stress effect.

Our adherence to UAE Ministerial Resolution No. (44) of 2022 on Occupational Health & Safety and Labor Accommodation, which mandates a mid-day break for outdoor workers from 12:30 Hrs to 15:00 Hrs between the period of 15 June to 15 September, underscores our commitment to safeguarding the well-being of all personnel.

Heat Stress Incidents (Employees)

2021	0
2022	0
2023	0

Heat Stress Incidents (Contractors/Sub-Contractors)

2021	4
2022	0
2023	1

Scope: ENEC, ENEC Operations, ENEC Commercial

Food Safety

GRI 2018: 403-7

The Enterprise H&S Team, in coordination with the Enterprise Facility Support Services HSE Team, conducts regular assessments to ensure adherence to food safety and catering standards at the Barakah facilities.

Beyond compliance audits, these teams spearhead awareness campaigns addressing various concerns, including employee health and wellness initiatives focusing on dietary habits. Specifically, during Ramadan we advocate for healthy eating practices, emphasize the importance of staying hydrated and seeking shelter from the heat.

Industrial Hygiene

GRI 2018: 403-7

Various industrial hygiene procedures and programs are implemented, encompassing multiple facets such as identifying and monitoring areas with insufficient oxygen supply, controlling confined spaces, calibrating industrial hygiene equipment, and monitoring stress factors affecting industrial hygiene. Additionally, hygiene assessments, including air quality surveys, noise control zones, and hazardous substance management are conducted.

Employees undergo rigorous training on Respirator and Self-Contained Breathing Apparatus (SCBA), along with fit testing program for respiratory equipment. Regular testing and inspection of all breathing apparatuses are conducted to maintain safety standards. These efforts are in addition to medical surveillance programs.

Health Screening & Surveillance

GRI 2018: 403-10

In accordance with regulations set by OSHAD and FANR, all employees are required to undergo health screenings and medical surveillance. These screenings are conducted to assess individual occupational health and ensure compliance with safety standards. The results of these screenings, along with any recommendations, are kept confidential to manage each individual's occupational health effectively. The frequency of these examinations varies based on job categories and associated risks to ensure comprehensive monitoring of employee well-being.

There were zero incidents of any work-related ill health incidents in 2023.

Employee Occupational Safety

GRI 2018: 403-9

Employees working in HQ in Abu Dhabi and/or onsite at the Barakah Plant, regularly travel between the two locations. Safety risks related to transportation, construction and operations are incorporated into our safety management approach.

In 2023, the organization's employee Lost Time Injury Frequency Rate (LTIFR) was 0.35 and a Total Recordable Case Frequency Rate (TRCFR) of 1.93.

There was one fatality, and one LTI, in addition to medical treatment cases in 2023. The fatality and LTI was a result of two separate road traffic accidents on the E11 highway. Although, the total recordable cases increased marginally year on year between 2021 – 2023, the TRCFR shows considerable increase due to the significant reduction in man-hours resulted from transition of the Barakah Plant from construction to operation.

Employee Occupational Safety

	2021	2022	2023
Number of employee hours worked	8,985,700	6,597,590	5,701,192
Fatalities (employees)	0	0	1.0
Lost Time Injury Frequency Rate (LTIFR; employees)	0	0	0.35
Total Recordable Case Frequency Rate (TRCFR; employees)	0.67	1.52	1.93

Scope: ENEC, ENEC Operations, ENEC Commercial
LTIFR and TRCFR are calculated per million man-hours.

Contractor Occupational Safety

GRI 2018: 403-9

We conduct regular audits and inspections to verify that all listed contractors and subcontractors adhere to UAE laws and regulations. As the Prime Contract holder, oversight of contractor HSE performance commences with an examination of KEPCO's HSEMS OSHMS and procedures and extends to onsite inspections across all areas and disciplines. Any identified shortcomings that are not rectified immediately are documented using a deficiency notification procedure, which serves as the formal communication channel with the Prime Contractor. These deficiencies are managed through corrective action plans.

Performance indicators and deficiency notifications are monitored and tracked monthly until full implementation and successful closure are attained. This meticulous follow-up ensures that safety standards are upheld, and deficiencies are promptly addressed.

Contractor Occupational Safety

	2021	2022*	2023
Contractor and subcontractor hours delivered (millions)	17.26	20.78	17.99
Fatalities (contractors and subcontractors)	0	0	0
Lost Time Injury Frequency Rate (LTIFR; contractors and subcontractors)	0.06	0.05	0.00
Total Recordable Case Frequency Rate (TRCFR; contractors and subcontractors)	0.64	0.77	1.11

Scope: Contractors
LTIFR and TRCFR are calculated per million man-hours.

* *Reinstated numbers removing error of double calculations for few contractors*

In 2023, contractors were involved in two outages performing high-risk non-routine activities. There was an increase in medical treatment cases, leading to a marginal increase in Total Recordable Case Frequency Rate (TRCFR). However, the Lost Time Injury Frequency Rate (LTIFR) among contractors showed improvement, with no lost time incidents recorded during 2023.

In addition to tracking and reporting the overall H&S incident rates, **the organization monthly reports its performance to World Association of Nuclear Operators (WANO) according to the WANO established performance indicators.** The Barakah Plant performance for WANO performance indicators is included as below:

The Barakah Plant WANO KPIs performance for the year 2023 was as stated below.These KPIs are cumulative for 18 months

Total Industrial Safety Accident Rate (TISA2) = 0.00	**Total Industrial Safety Accident Rate (TISA2) = 0.00**	**Total Industrial Safety Accident Rate (TISA2) = 0.00**

Key definitions:

Total Industrial Safety Accident Rate (TISA)

The Total Industrial Safety Accident Rate indicator is defined as the number of accidents for total personnel, (Utility and non-Utility personnel) working onsite that result in one or more days away from work (excluding the day of the accident) or restricted Work Accidents or fatalities per 200,000 man-hours worked.

Industrial Safety Accident Rate (ISA)

This indicator is defined as the number of accidents for all utility personnel (permanently or temporarily and except contractor personnel) assigned to the station, that result in one or more days away from work (excluding the day of the accident) or one or more days of restricted work (excluding the day of the accident), or fatalities per 200,000 man-hours worked.

Contractor Industrial Safety Accident Rate (CISA)

This indicator is defined as the number of accidents for all contracted personnel, including all contractors, supplemental personnel, and all other non-utility personnel working onsite that result in one or more days away from work (excluding the day of the accident) or fatalities per 200,000 man-hours worked.

WANO Goal Thresholds are as below:

Nuclear Safety

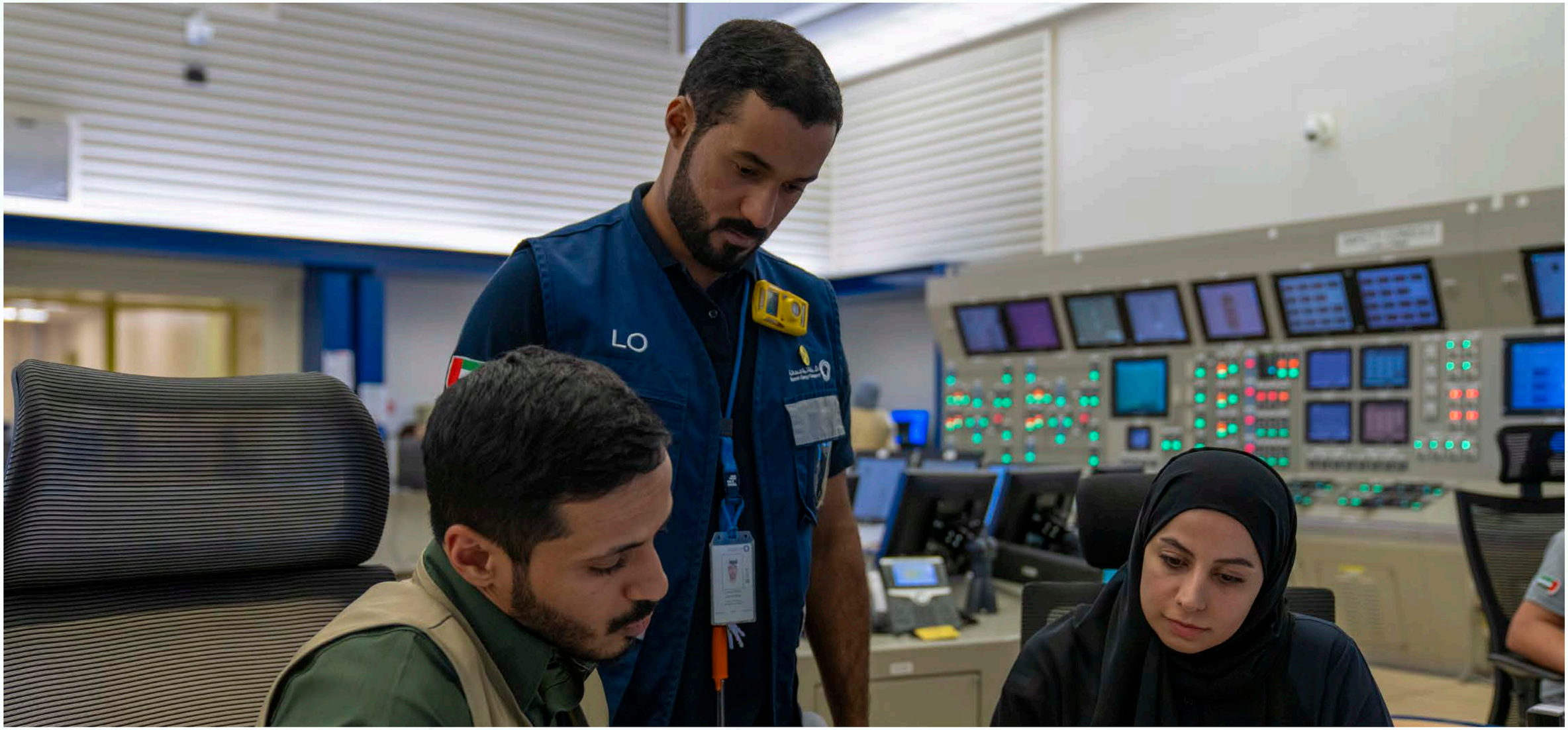
We have established robust processes and management systems to uphold the Barakah Plant operations to the highest standards of nuclear safety and quality. These protocols are rooted in the collective expertise and operational insights of the global nuclear energy sector, incorporating best practices gleaned from operators worldwide and esteemed industry organizations such as the IAEA, WANO, and INPO.

ENEC is dedicated to upholding FANR's core values of safety awareness, responsibility, competency, independence, and transparency. FANR regulates various aspects of nuclear energy plant activities, encompassing design, siting, construction, operation, and decommissioning, as well as the handling of radioactive substances and radiation sources. Adhering strictly to FANR regulations, our procedures and programs ensure comprehensive compliance, emphasizing our unwavering commitment to nuclear safety and quality standards.

Security

We collaborate closely with the National Guard Command (NGC), the Abu Dhabi government organization in charge of protecting and securing vital assets and infrastructure, including the Barakah Plant. NGC established and implements the highest international security standards for the Barakah Plant by FANR regulations and IAEA recommendations.

FANR-approved Physical Protection Plan for Operation (PPP-O) addresses security organizational structure and staffing, the plant's physical protection (including the designation of protected and vital areas), guard training and qualification, information security, cybersecurity, and security contingency responses, including preparedness for concurrent nuclear safety-related emergencies and threats. The PPP-O guarantees that physical security tactics will neutralize any risks and aims to protect the nuclear plant from hostile acts and radioactive sabotage.



6.2 OUR WORKFORCE

> The human being is the core of any civilization; thus, it is necessary to focus on people because they are the center of gravity for any real and sustainable progress"
>
> **– Sheikh Zayed Bin Sultan Al Nahyan, Founding Father of the UAE**

A multinational team comprising hundreds of professionals with extensive expertise, knowledge, and experience has collaborated on the construction and operation of the Barakah Plant. Simultaneously, significant investments have been made in developing human capital through specialized education and training programs in nuclear energy, specifically designed for UAE Nationals.

Core Principle: Creating value for citizens by empowering our people

Sustainability Objectives

Our Workforce
to generate jobs, recruit, and retain high-quality people and the nuclear energy sector.

National Talent Development
to develop National talent for employment in the nuclear energy sector.

Knowledge Creation
to contribute to the development of a knowledge-based economy benefiting from international experience and the provision of world-class training and education programs.

By delivering on these sustainability objectives, we are contributing to the achievement of the following UN SDG targets.

UN SDGs Addressed

Increase the number of people with relevant skills for financial success
By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs, and entrepreneurship.

Ensure full participation in leadership and decision-making
Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic, and public life.

Full employment and decent work with equal pay
By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value.

Promote youth employment, education, and training
By 2030, substantially reduce the proportion of youth not in employment, education, or training.

Protect labor rights and promote safe working environments
Protect labor rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.

Develop sustainable, resilient, and inclusive infrastructures
Develop quality, reliable, sustainable, and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.

Growing with Our People

GRI 2021: 2-26, GRI 2016: 201-3

We cultivate a stimulating and supportive work environment for our employees, striving to attract and retain top talent from both the UAE and across the globe. **In 2023, women comprised 17.17 % of our workforce, and we prioritize initiatives such as Women in Nuclear (WiN) to encourage greater female participation in the nuclear industry.** Recognizing the importance of investing in our employees, we offer exceptional professional development opportunities and have implemented flexible time policies informed by our experience during the pandemic. Our workforce is rich in diversity, reflecting various nationalities, while also honouring the UAE's traditions and heritage.

Policies and Practices for our Employees

- ENEC has policies to cover people of determination, hiring of juvenile in compliance to Articles 20 and 21 of the UAE Labor Law, organization shall not employ an underage person of either sex before he or she reaches 15 years of age.
- It is prohibited to discriminate based on race, color, sex, religion, national origin, social origin, or because of disability among persons, which would impair equal opportunities or prejudice equality in obtaining or continuing a job and enjoying its rights.
- It is prohibited for the employer to discriminate in businesses with the same job duties. We have different platforms to ensure employees can raise their concerns without the fear of retaliation.
- We have an employee engagement survey to assess employee satisfaction.
- We have an employees' assistance program focussing on employee welfare.
- For UAE National employees, ENEC contributes to Abu Dhabi Retirement Pensions and Benefits Fund and calculates this in accordance with the Fund regulations. Employee benefits and provision/liabilities for expatriate workers are based upon the employee final salary and length of service as a part of End of Service Benefits (EOSB).
- Remuneration is determined based on the job grade in alignment to approved salary structure. We are following the Korn/Ferry Hay methodology for job evaluation and grading structure.

Highlights of Initiatives for Employee Welfare in 2023

Each Entity, Chief and VP identified action plans to close gaps related to their areas tied to these areas for improvement. **This resulted in 179 actions across the organization of which 84% were completed in 2023.** The highest number of actions were targeted for supporting employee development and visibility and availability of leadership to improve transparency, trust and involvement of employees.

At the organization level some key initiatives implemented related to areas for improvement include:

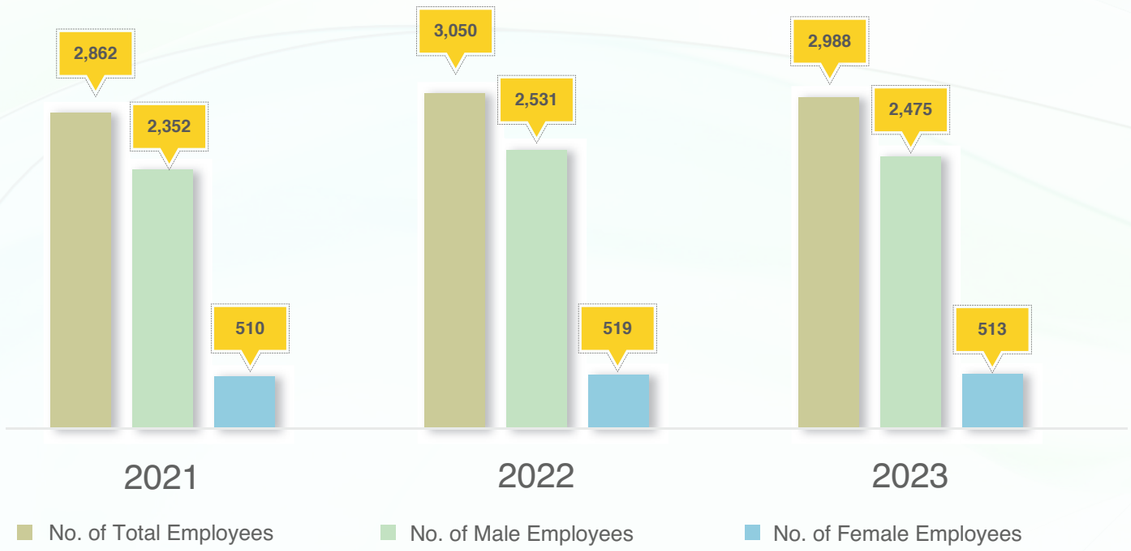
- New compensation and reward system with fair promotions and annual merit increase
- Improved succession planning and development processes
- Greater visibility for internal postings of available roles and focus on re-deployment of internal candidates
- Executive level recognition in key events
- New training and alignment programs for leadership
- Introduction of a new Employee Assistance Program (EAP) and other wellness initiatives

Diversity and Equal Opportunity

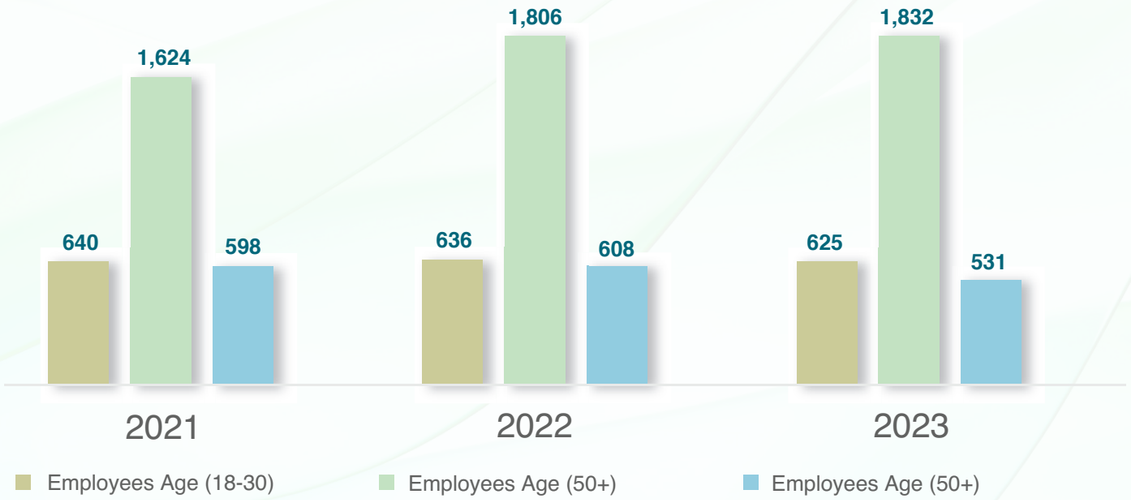
GRI 2021: 2-7, GRI 2016: 401-1, 405-1

Our team consists of top-tier professionals and specialists driving one of the world's largest nuclear energy projects, a cornerstone of UAE history and strategic significance. In 2023, our workforce stood at 2,988. Among them, we are proud to have 1,570 UAE nationals, accounting to 52.54% of our direct hire headcount. We have 625 employees in the age group of 18-30 years, reflecting our commitment towards our national goals for youth employment and nurturing and empowering the next generation of talented individuals in the UAE.

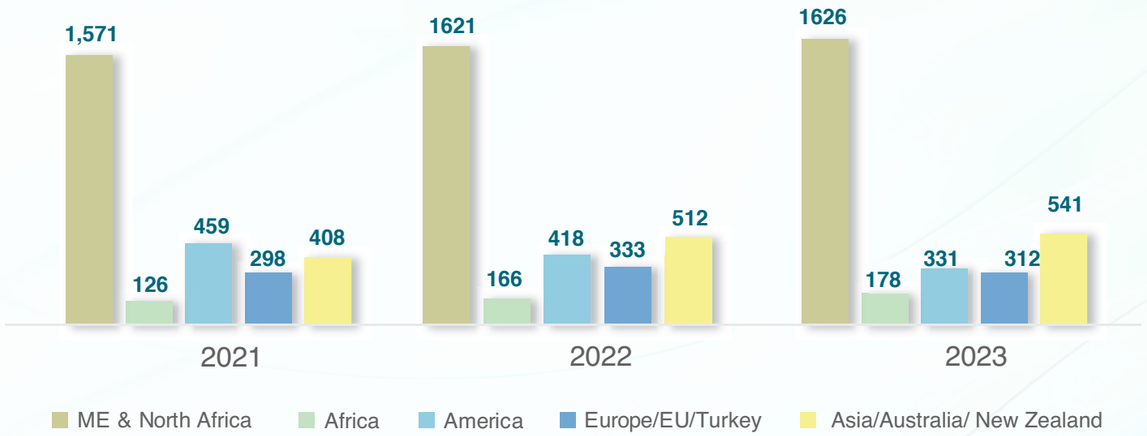
Our Workforce Diversity



Diversity by Age



Diversity by Nationality



Scope: ENEC, ENEC Operations, ENEC Commercial

Female Participation

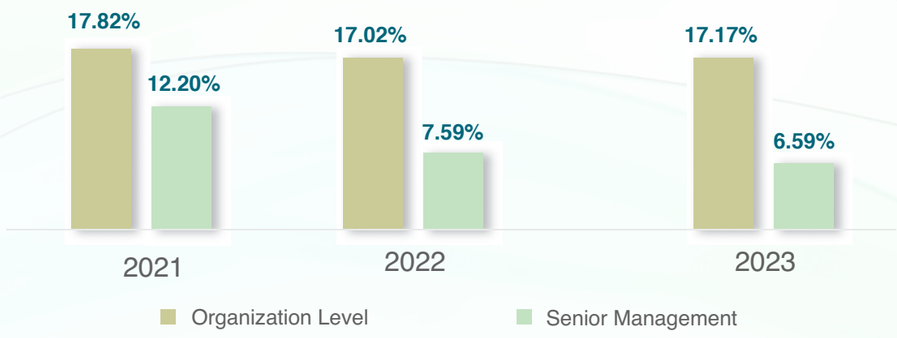
GRI 2016: 405-1

We are committed to equitable gender opportunities, actively promoting the professional growth of our female employees to maximize their impact in the nuclear industry. Through an integrated approach, we champion the inclusion of women in our workforce, supporting the development of the next generation of female nuclear professionals, nurturing their skills, and cultivating an inclusive workplace environment that values work-life balance and overall well-being.

In 2023, our workforce included 513 female employees, constituting 17.17 percent of the total workforce and 6.59 percent of senior management. This represents a slight decrease in female representation compared to previous years, particularly at the senior management level. Notably, many women at the Barakah Plant hold positions in highly technical roles, underscoring its status as one of the most gender-diverse nuclear energy plants globally.

Gender Diversity

Female Participation



Women in Nuclear (WiN)

WiN is a non-profit organization for women working professionally in the nuclear energy and technology fields and those interested in the nuclear sector. Women in Nuclear drives a culture of excellence in nuclear energy and technology, in which women are empowered to succeed. Creating professional development and networking opportunities to facilitate know-how, greater collaboration with international peers, professional growth and career advancement, WiN enhances awareness of the value of nuclear energy and advanced technology.

WiN plays an integral role in ensuring that Barakah is the employer of choice for all women and supports female employees to join international networks and to expand their horizons.

WiN programs and initiatives

- Multiple schools and universities outreach sessions to inspire young girls to pursue a career in Nuclear.
- Focus on female professional development through conducting a series of nuclear research sessions, Atoms for wisdom and Growth sessions, outage flyers to highlight the role that women play in the outages, and IAEA events and training.
- Published Human Resource Strategies for Gender Equality to the IAEA .
- Many social events were conducted to ensure life/work balance for the females i.e pottery sessions, paddle sessions, basketball tournaments, and a dedicated trainer in the ladies' gym.

Women in Nuclear Middle East chapter

The UAE announced the first Women in Nuclear Middle East chapter to enhance women's roles in advancing nuclear energy and achieving Net Zero. Since its inception, ENEC has continued to support the advancement of Emirati women, who today are at the forefront of the UAE's path to Net Zero by 2050.

WiN Middle East chapter aligns with the UN SDGs to increase gender equality within sustainability and decarbonisation strategies. ENEC continues to build capabilities and skills of women to play key roles across nuclear science, engineering, and technology.

Female experts are driving innovation and inspiring young women through the UAE Peaceful Nuclear Energy Program.

Women represent around 20% of the UAE Peaceful Nuclear Energy Program, playing a key role across a range of areas including engineering, reactor operations, nuclear safety and other technical specialties.

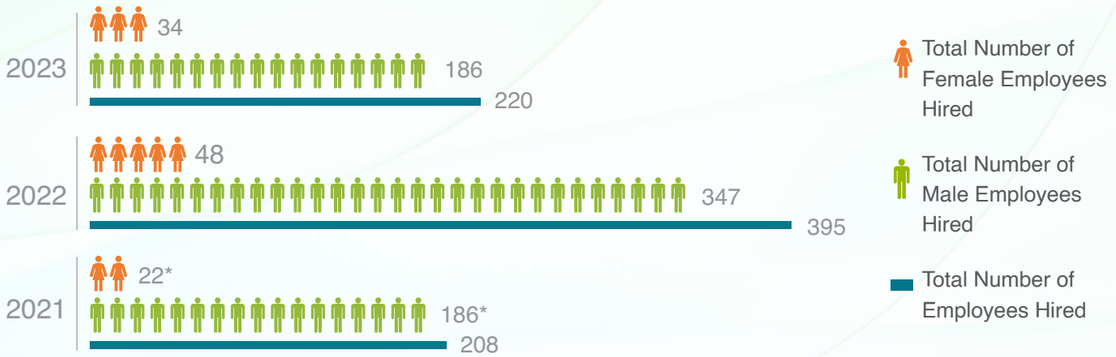
Recruitment and Onboarding

GRI 2016: 401-1

Our expanding workforce plays a vital role in bolstering the national economy, both directly through the spending of wages and benefits and indirectly by stimulating job creation across various sectors. Additionally, the influx of expatriate employees and their families contributes further to economic activity within the UAE.

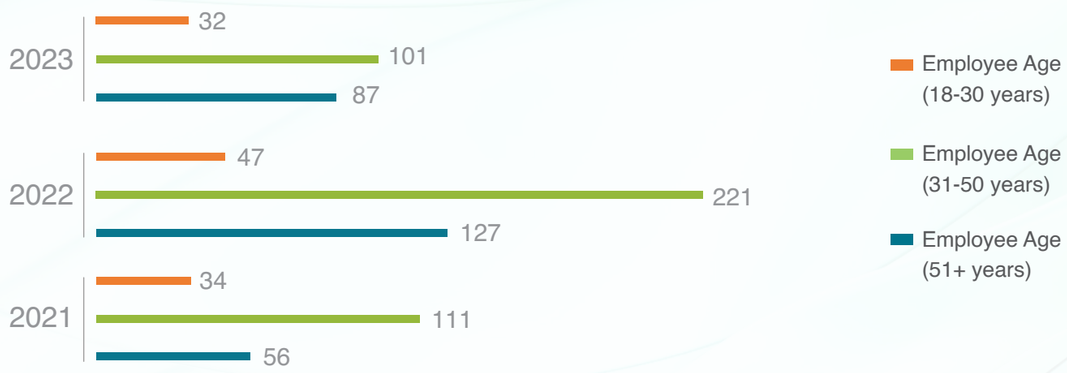
In 2023, we welcomed 220 new employees into our ranks. Each new employee undergoes an intensive induction program titled '**Becoming a Nuclear Professional.**' This comprehensive training regimen covers our regulatory obligations, safety protocols, radiological constraints, and risk management in alignment with the organization's established policies, procedures, and internal frameworks.

Hiring Trends



** The 2021 male and female hiring numbers reinstated*

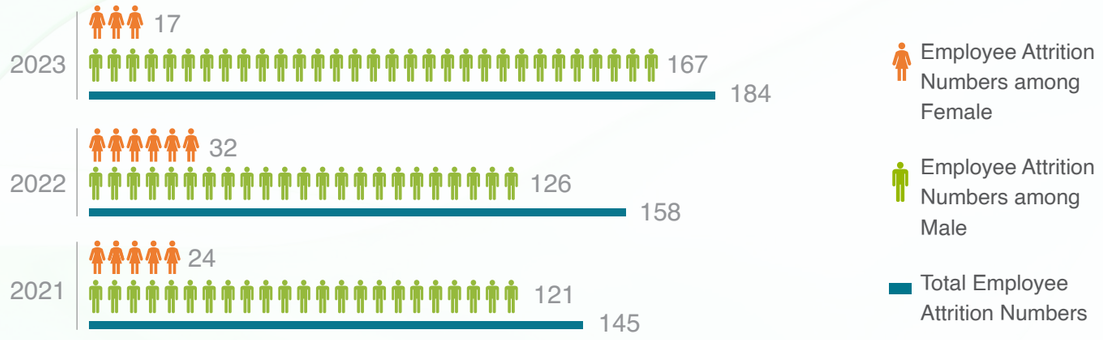
New Employee Distribution – By Age



New Employee Distribution – By Nationality

	2021	2022	2023
Total Employee Hired Among Expats	143	278	138
Total Employee Hired Among UAE Nationals	58	117	82

Employee Attrition by Gender



Employee Attrition Rate

Employee Attrition by Nationality

	2021	2022	2023
Total Employee Attrition Among Expats	111	97	157
Total Employee Attrition Among UAE Nationals	34	61	27

Note:

1. *In 2022, organization's Attrition for direct hires was reported solely for uncontrolled leavers, calculated as (cumulative leavers/ average headcount*100)*
2. *Attrition calculation changed in 2023 to Rolling 12M attrition (Controlled + Uncontrolled leavers) which includes all types of contracts for the employees occupying fully budgeted Permanent Positions (4USS/GDP/ORE-P/Org. Chart)*

Employee Benefits

GRI 2016: 401-2

Full time employees are provided benefits like, annual leave, medical escort leave, compassionate leave, sick leave, non-industrial leave, maternity leave, health insurance, paternity leave, and life/disability insurance.

We provide a statutory notice period in compliance to UAE law.

Salary and Remuneration

GRI 2021: 2-19, 2-20, 2-21

Salary and remuneration is determined based on job grades in alignment to the approved salary structure. ENEC follows the Korn/Ferry Hay methodology for job evaluation and grading structure. Salary structure is classified / confidential information.

Retirement Benefits

GRI 2016: 201-3

Retirement plan for UAE nationals complies with Abu Dhabi pension fund requirements. EOSB entitlement for Non-UAE National employees is based on the last basic salary earned.

Parental Benefits

GRI 2016: 401-3

Maternity leave of 90 calendar days of leave and 5 working days of paternity leave is provided. In 2023, 21 females applied for maternity leave out which 11 completed 12 months of employment and the other 10 employees completed 10 months and are currently active.

Anti-Discrimination

GRI 2016: 406-1

To avoid any discrimination among employees, the company and employees are required to adhere to the comprehensive code of General Business Principles and Ethics which clearly captures that the organization is committed to establishing and maintaining an environment of respect among employees and that all employees must make all employment decisions without any regards to an individual's race, colour, national origin, religion, gender, age, disability, or other characteristics (personal traits). Such employment decisions include selection, hiring, placement, compensation, benefits, transfer, promotion, training, termination, and disciplinary action.

Employees are also prohibited from committing any act of discrimination in the workplace against any other person based on a personal trait. If any claims are substantiated, a penalty is imposed as stipulated in the Enterprise Human Resources Manual Disciplinary Action Code. One case was raised in 2023 for discriminatory practices, which was partially substantiated, but for harassment and behaviour instead of discrimination.

The code of General Business Principles and Ethics also encourages employees to speak up and report any concerns related to discrimination using the available reporting channels such as ECP, compliance team and Human Capital.

Employee Engagement

Employee engagement helps achieve the purpose, vision, and company strategy by boosting employee satisfaction, retention, and productivity.

Employee Engagement and Satisfaction

The organization conducts an Engagement survey every two years with the previous survey conducted in 2022. The next survey will be run in 2024.

In 2022, we conducted an Employee Engagement Survey that achieved a score of 80% (total favourable) for Sustainable Engagement (11 core questions) in 2022. The score has been used to produce 76 actions.

Some of the programs and initiatives taken during the last years include:

- Market aligned and transparent grading structure.
  - Implementation of new transparent grading system and launch of fair and equal annual salary review process.
- Recruitment efforts focused on redeployment of internal talent with Barakah Plant experience.
  - Launch of new internal careers site to increase internal mobility.
- Implement transformational leadership development programs including:
  - Program targeting Directors, Managers, and Superintendents.
  - Continuing training sessions for leaders on a quarterly basis.
- Launch a new Emirati Admin Assistant program intended for Emirati candidates for clerical positions.
- Implementation of a Graduate Development Engineers program (GDEs) to supply fresh graduates to technical roles in the organization.

Employee Concerns Program

GRI 2016: 406-1

To cultivate a work environment that fosters the support and empowerment of all employees, contractors, and subcontractors, the organization has implemented an Employee Concerns Program (ECP), setting the standard for industry best practices. **This initiative provides a platform for individuals to raise and address nuclear safety and quality concerns without apprehension of reprisal.**

The ECP provides an alternative and independent process to seek intervention, consultation or independent resolution of nuclear safety and quality issues.

Its primary objective is to promote transparent communication and ensure that employees feel empowered to voice concerns regarding nuclear safety or quality, free from any fear of harassment, intimidation, retaliation, or discrimination (HIRD).

By promptly and objectively addressing such concerns, the ECP serves as a pivotal mechanism for maintaining a robust nuclear safety culture and upholding a Safety Conscious Work Environment (SCWE).

Distinguished as a pioneering initiative in the UAE, the ECP underscores the organization's commitment to prioritizing safety and fostering a culture of accountability.

By encouraging employees and contractors to identify and report nuclear safety issues, as well as any factors affecting plant programs, processes, and performance, it **advances the goal of establishing a robust Nuclear Safety Culture.**

Employee Recognition and Reward Framework

GRI 2016: 405-1

We adopt reward practices that enable engaging, motivating, and retaining the right people at all levels. The Employee Recognition and Awards Framework has been developed to build a positive recognition work environment.

Recognition Program:
This is created to recognize employees for exceptional performance in a structured and objective manner. Employees who have been nominated for Award must meet one or more of the below:

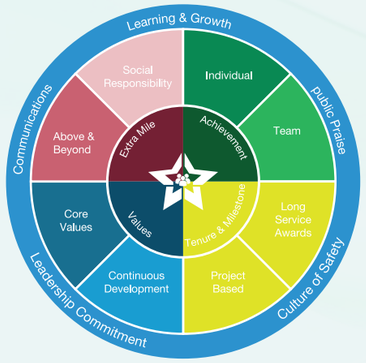
- Complete a short-term project or special assignment, which requires a unique or innovative approach.
- Complete a task to a standard that exceeded expectation.
- Enhance office morale through teamwork.
- Demonstrate flexibility in meeting new challenges under tight deadlines.
- Provide exceptional customer service, which reflects favorably on organization.
- Enhance work related knowledge and skills while maintaining efficiency.
- Contribute to improve brand image of organization.
- Consistently exemplify organization's core values (A: Accountability, T: Teamwork, S: Safety, I: Integrity, T: Trust, and E: Excellence) in doing their job or and in dealing with internal and external customers.
- List any accreditations, certifications, awards or recognitions under human capability.

Employment Recognition:

- **Spot awards** is an automated process whereas a nominator would nominate an employee who has done exceptional work outside of their day-to-day activities and responsibilities.
- **Corporate awards** are for employees who have done exceptional cost-saving activities for the organization. They are nominated and then a panel would review their accomplishment and approve/reject the nomination accordingly.
- **Long Service Award** is annual activity for an organization to recognize its employees for their longevity, commitment, and great service with the organization

Employee Recongnition Framework

1	ACHIEVEMENT RECOGNITION	Involves recognizing tangible outcomes or product of an employee's work.
2	VALUES RECOGNITION	Focuses on how employee does their job as opposed to results of their work. Important to recognize their trainino, skills, and expertise.
3	EXTRA MILE RECOGNITION	Focuses on outstanding achievement, exemplary performance and wide impact achievements that go above and beyond.
4	TENURE & MILESTONES RECOGNITION	Focuses on recognizing tenure and celebrating key milestones.



Employee Development

Some of the initiatives/programs towards employee management and development programs are as follows:

- Onwards to nuclear excellence program
- Continuous leadership development (CLD)
- Foundational alignment session (FAS)
- Foundational leadership essential (FLE)

Leadership Development Program

Leadership Continuing training sessions implemented on a quarterly basis:

- Constant alignment sessions with the First Line and Supervisors through the Foundational Alignment Sessions (FAS).
- Constant alignment sessions with Managers and Directors through the Continuous Leadership Development sessions (CLD).
- Developmental program for Foundational leadership level through Foundational Leadership Essentials (FLE).
- Developmental program for Managers and Directors through the Onwards to Nuclear Excellence (ONE).
- Leadership coaching through Nuclear Leader as a Coach Program (NLAC).
- Training of ROs and SROs through Leading Effective Teams (LET) program.
- ASPIRE – Four levels that comprehensively cover and consolidate all core competencies, and all aspects of SELF and TEAM, as well as introduce initial concepts and competencies in SELF and TEAM leadership.
- Induction training program for all new joining employees. Coaching implemented by internal certified coaches to set of high potential employees as well as Executive coaching provided for senior leaders.

Talent Management Framework

Talent Management reviews and succession planning cycle , was formally initiated across the organization, to identify key succession roles, as well as potential Emirati successors for Directors critical Positions identified as successor positions in Manager role.

- Employees identified for potential successors (in Ready now and Ready in 1-2 Succession Planning Readiness) are eligible for a tailored development plan **- Individual Development Plans (IDP)**, a tool to address the development goals including but not limited to on job training, mentoring and coaching, formal training.
    - Key metrics were developed and assigned across the executive score cards to ensure progress is captured in this area. Such metrics are captured in the Emirati Health Index (EHI), an index that measures at the Entity, Chief and VP level. The key drivers supporting the effective implementation of Succession Planning with focus on Emirati development across the organization.
- Talent Management supports the safe and sustainable operation of Barakah Nuclear Power plant through the proactive planning, development and growth of Talent. It does so through implementation of **Youth Development programs** intended for Emirati fresh graduate engineers, who join the organization to gain industry exposure and employability.
- **Talent Pipeline programs** provide a technical pipeline for Emirati field operators and technicians of BNPP as well as for undergraduate and graduate students, who are sponsored in various local and international universities. Internal Talent in the organization is equally given opportunity to further their technical, corporate and leadership development on an ongoing basis through both in-house and external trainings.

National Talent Development

GRI 2016: 413-1,413-2,202-2

Emiratization remains a foundational strategy for Human Capital

We prioritize fostering a positive work-life balance for our employees while actively promoting Emiratization within a cohesive, cross-cultural workforce. Our commitment extends to investing in the Al Dhafra Region community and economy, aiming to bolster sustainable growth through the development of enduring partnerships and the creation of long-term job opportunities.

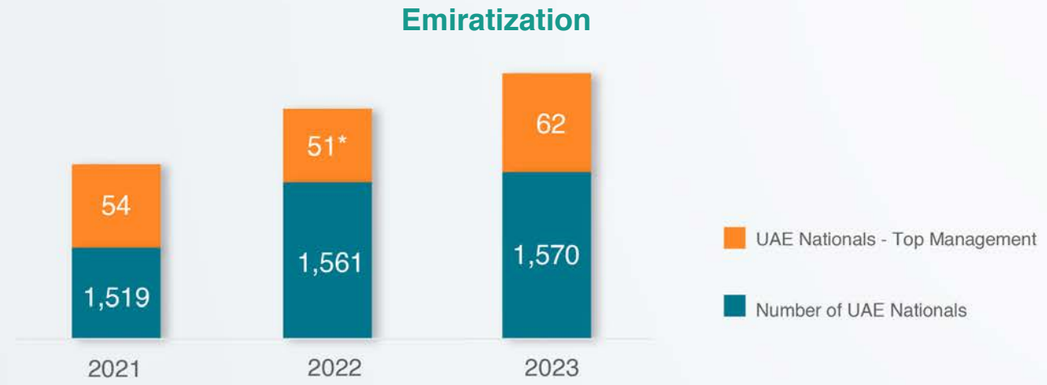
Emiratization

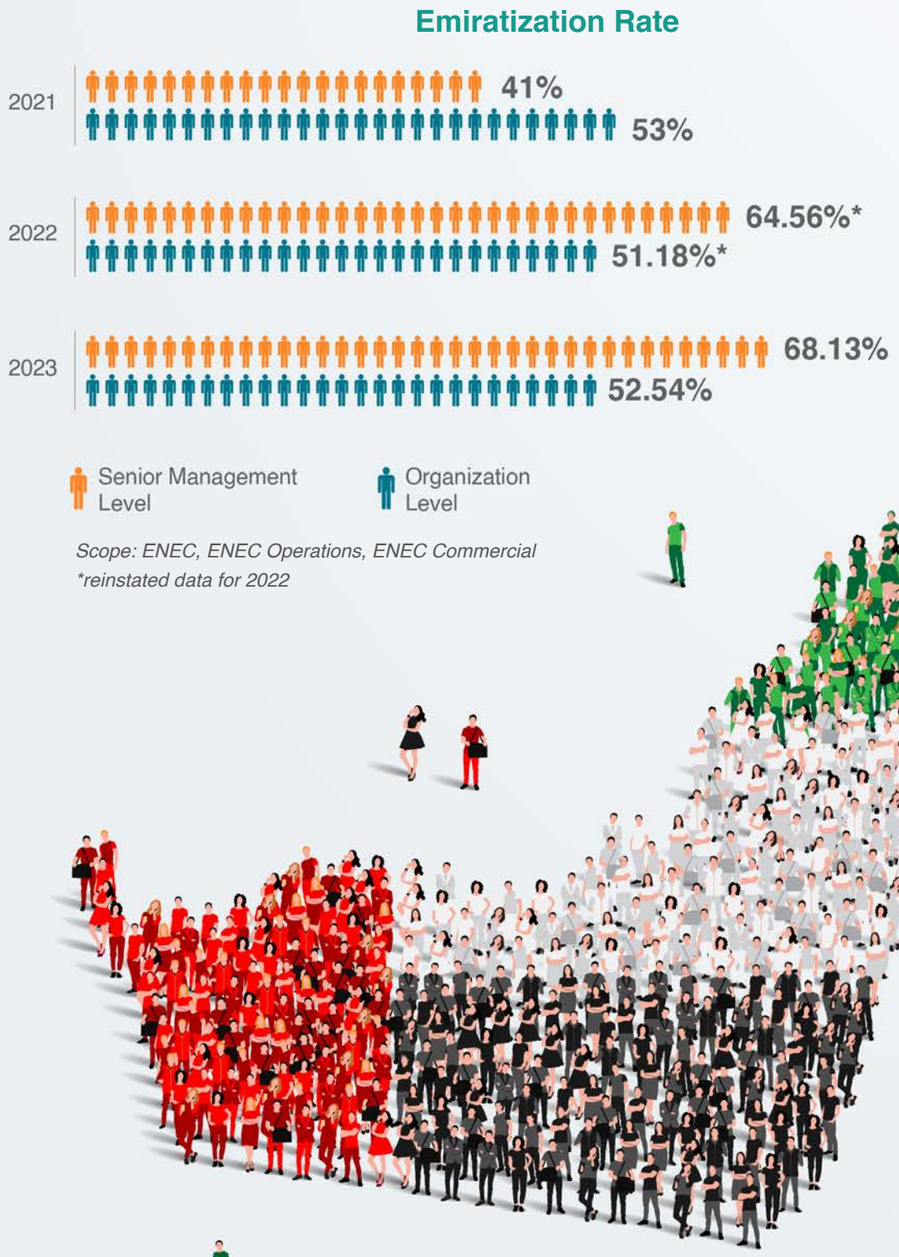
The organization is dedicated to supporting youth programs and corporate social responsibility initiatives.

From 2021, a 5-year forward-looking Emiratization Strategy was developed and is in the implementation stages, with a focus on:

- Emirati leader development and advancement for core positions through our talent identification and succession planning program
- Emirati effective participation in sustainable positions supporting Barakah Plant operations beyond 2024
- Effective engagement of international experts in knowledge transfer and advancement of Emiratis
- Implementing robust programs for the development of technical and non-technical entry-level Emiratis

A dedicated Emiratization Department is responsible for attracting and retaining national talent to reduce reliance on international expertise. In 2023, we employed 1,570 UAE Nationals. **The Emiratization rate was 52.54 percent across the workforce in 2023, and 68.13 percent among senior management, reflecting our commitment to providing career growth and opportunities to our Emirati professionals.**





6.3 KNOWLEDGE CREATION

GRI 2016: 404-1,404-2,404-3

Our continuous dedication to bolstering the UAE's transition to a knowledge-based economy involves actively promoting knowledge sharing and fostering engagement with both local and international stakeholders. Through these initiatives, we aim to propel growth and establish new benchmarks of excellence. Given that the nuclear energy industry adheres to some of the most rigorous quality, technical, and risk management standards globally, we remain steadfast in our commitment to sharing our experiences in implementing and upholding these standards with other national stakeholders and entities. Therefore, we seek to reach out to our stakeholders to provide formal education and comprehensive insights into our program and technology.

Systematic Approach to Training

We have implemented a Systematic Approach to Training (SAT) across ENEC, the Barakah Plant, and relevant corporate training initiatives. This approach also extends to overseeing contractor-provided training to ensure alignment with applicable requirements. All training programs adhere to the SAT methodology in identifying training needs, as mandated by FANR.

The execution, compliance, and efficacy of these training programs undergo regular internal and external evaluations, conducted by both WANO and FANR, to facilitate ongoing enhancements. Within the Nuclear Training function, we design, develop, implement, evaluate, and supervise training and qualification programs for Barakah Plant staff.

These efforts primarily involve the creation and execution of general employee training initiatives, as well as initial and continuous training programs administered by ENEC Operations for Barakah Plant Operations and Technical staff. Additionally, we manage simulator-training facilities to further augment our training capabilities.

Systematic Approach to Training			
	2022	2023	2023
Average Hours of Internal and External Training per Employee	54.64	264.25	201
UAE National Employee Internal Training Hours	39,198	346,613	267,787
International Employee Internal Training Hours	78,831	417,501	269,875
UAE National Employee External Training Hours	29,648	29,024	46448
International Employee External Training Hours	8,712	12,824	167,84
Number of e-Learning and e-Reads Available	789	1162	1206
Number of e-learning and e-reads	50,195	108,902	107,976

Scope: ENEC, ENEC Operations, ENEC Commercial

Nuclear Knowledge Management Training

Mission-critical knowledge resides primarily within specialists and encompasses tacit elements like skills, expertise, technical competencies, know-how, and historical insights into plant operations. Explicit knowledge, on the other hand, is documented or stored within ICT systems as information and data.

One pivotal role of Knowledge Management is to capitalize on the inherent value of knowledge by facilitating diverse knowledge flows across both tacit and explicit domains. To this end, employees have undergone training in nuclear knowledge management theories, models, and best practices.

ENARA Leadership Program

The ENARA Leadership Program provides developmental opportunities to leaders and has four tiers of leadership development programs dedicated to Executives (VP/Chief), Directors, Managers, and Heads/ Supervisors. Programs are developed for each leadership tier, focusing on the competencies and effective behaviors needed at each tier.

Global Sanctions Course

In an era marked by ever-evolving laws, regulations, and policies, equipping our employees with a nuanced comprehension of global sanctions is paramount. Through tailored sessions facilitated by CCL Academy, employees are immersed in specialized training sessions designed to elucidate the nature of sanctions, comprehend diverse sanctions regimes, and develop proficiency in identifying red flags while effectively monitoring sanctions compliance.

Innovation Management Certification – Level 1

To maintain an innovation and excellence culture, employees from the Youth Category undergo Innovation Management Certification-Level 1. The certificate is provided by the Global Innovation Management Institute (GIMI), a leader in the field of Innovation. The training is customized to the Enterprise Innovation Requirement that aims to build innovation management capabilities at all levels of the organization, provides an in-depth understanding of how to define innovation strategy, how to build innovation capacity, and how to instil innovation discipline.

Nuclear Energy Training

The UAE-IAEA Nuclear Energy Management School is a collaborative initiative involving the International Atomic Energy Agency (IAEA), Khalifa University of Science and Technology (KU), and the Federal Authority for Nuclear Regulation (FANR) in the UAE. This program is designed to train the next generation of leaders in nuclear energy by offering an international educational experience that covers the full spectrum of nuclear energy management. Participants gain insights into the peaceful use of nuclear technology, safety, security, and regulation, while engaging in research and discussions on global nuclear issues. The school also facilitates networking among nuclear energy professional's worldwide, fostering international cooperation and collaboration.

In 2023, the UAE-IAEA Nuclear Energy Management School was held at Khalifa University, in partnership with key organizations including the Emirates Nuclear Energy Company (ENEC), the Critical Infrastructure and Coastal Protection Authority (CICPA), and ENEC Operations. The program featured a comprehensive curriculum with expert lectures, site visits, and interactive sessions focusing on nuclear power economics, policy, safety, security, and non-proliferation. Participants, selected through a rigorous pre-training course and examination, undertook an intensive two-week program designed to deepen their understanding of nuclear energy challenges and opportunities, thereby equipping them with the skills necessary for the responsible management of nuclear technologies.

Competency Progression Plan

We focus on setting competency models and monitoring realistic and measurable standards of employee performance that support the timely and professional achievement of its strategic and operational objectives.

Train for Work

Part of the Abu Dhabi government's policy plans to interact with key stakeholders in society is to provide more job opportunities for Emirati graduates whose numbers are increasing at a fast pace every year. To support this, the Department for Government Enablement launched an initiative ('Train for Work') which aims to develop "unemployed UAE Nationals" who are registered in their database as "Actively looking for a job" to enable them to gain workplace experience which should improve their opportunity to get a job in future.

Known as 'I-Trainees', successful candidates join the organization for an initial six-month training program. There is no guarantee that they will secure a permanent job at the end of the program, but if they show promise and commitment, should a vacancy become available while an I-Trainee or shortly after completion of the program, they will be considered for it.

The program started in 2018, and since 2021 has been a key route for entry into employment with the organization. Of the 32 who joined as "I-Trainees" in 2023, 14 transferred to a permanent position by the end of the year.

Partnering with Academic Institutions

We collaborate closely with the government and local universities to ensure that the UAE workforce is well-prepared for roles within the nuclear energy sector, spanning from senior technical positions to management careers. As part of our commitment, we extend a range of scholarships and training opportunities to exceptionally talented science students and seasoned professionals alike. Moreover, our outreach program engages with schools to inspire students to pursue studies in science and enlighten them about the diverse career paths available in this field.

Diploma of Nuclear Technology (DNT) program

The DNT program was the long-term workforce program for foundational technical positions at the Barakah Plant. In 2023, it was replaced by the Diploma in Nuclear Technology, accredited by the Ministry of Education, through the National Qualifications Center and provided by ENEC Operations as Recognized training Centre.

The DNT is a two-year training program designed for high school graduates, delivered internally by the organization's nuclear instructors and the target discipline area. The trainees develop knowledge and understanding about science and engineering fundamentals, nuclear power plant systems and processes and undertake practical training in the workplace to meet the requirements of ae equipment operator or technician.

Trainees received a monthly stipend while in training and at the end of the DNT, successful trainees transfer to a position as Local operator or technician. The first intake of 24 trainees was in 2023 , all of whom have a target position of Local Operator.

We work closely with the Department of Government Enablement, the National Military Services authority and other key stakeholders to attract motivated young talent to the DNT program.

National Qualifications Center (NQC)

Since 2015, we have partnered with the National Qualification Center (NQC). Since 2017, we have been a recognized National Registered Training Provider (RTP) by the NQC, authorized to issue nationally endorsed qualifications. These qualifications can be achieved by employees who demonstrate competence in line with national standards for a given profession or discipline. Pending approval from the NQC, once implemented, these nationally endorsed qualifications can be recognized by other UAE institutions for credit transfer and career advancement. Furthermore, the qualifications will be internationally recognized.

Internship and Summer Program

We facilitate educational support and knowledge-sharing through our internship and summer programs, which offer valuable experiences to students.

The internship program caters to university students referred by their college or university to enable the organization to host them for around two months and depending on university requirements as part of their degree studies. The purpose is not just to help them meet their graduation requirements, but to open their eyes to the many career opportunities in the nuclear industry and identify talent who may be able to join future entry programs, such as the GDP.

In summer 2023, we experimented with a short program called Mustaqbali which means my future in Arabic for high school students (grade 10 -12), the offspring of employees, to enable gain essential knowledge about the nuclear industry and the workplace and to enable students to think about their future and what is their preference to study in the university. This pilot will inform roll out of a summer experience program for aspiring young talent in the future.

Barakah Youth Council (BYC)

The Barakah Youth Council (BYC) serves as a catalyst for inspiring, supporting, and empowering the next generation of UAE National leaders within the UAE Peaceful Nuclear Energy Program. Acting as a direct conduit between senior leadership and young UAE National employees, the BYC offers a platform for these individuals to voice their ideas, advocate for change, and spearhead continuous improvement initiatives. Furthermore, the council plays a pivotal role in decision-making processes, contributing to the ongoing evolution of the UAE Peaceful Nuclear Energy Program.

BYC have completed several initiatives that contributed to the development and engagement of youth within ENEC and locally. Major initiatives like participation of Youth in international arenas to represent the UAE and the organization and be exposed to major discussion topics globally, hosting of the International Youth Nuclear Congress (IYNC) 2024 in Abu Dhabi is a major initiative organized through a joint venture that comprises of BYC and IYNC organization, other initiatives like Youth Talks, Photography Competition, Development of Barakah Hub and many more.

Graduate Development Program

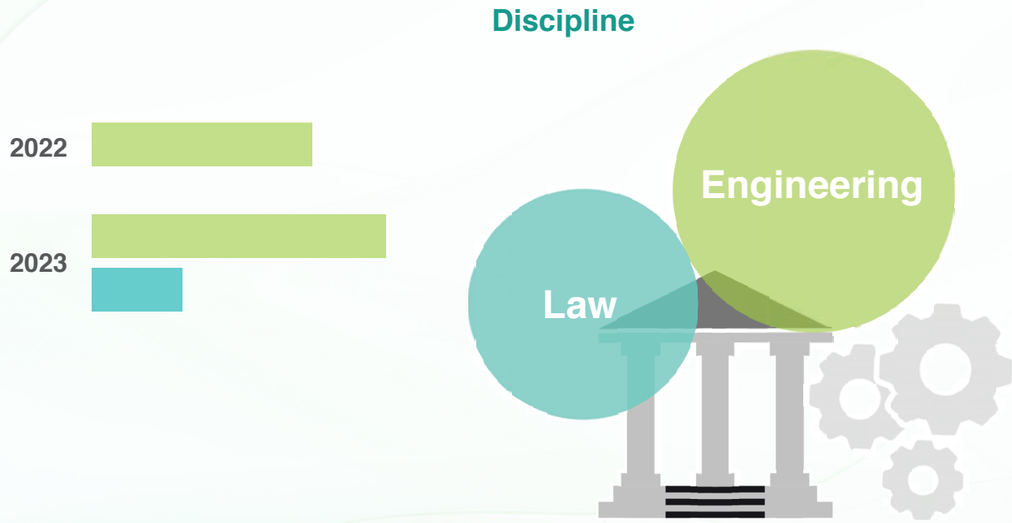
In 2009, we established the Energy Pioneers program with the aim of developing a pipeline of Emirati talent as the nuclear energy program grew. By the end of 2023, over 500 young Emiratis had completed their program and moved into positions in operations, engineering, radiation protection, chemistry and maintenance functions.

In 2021, the Energy Pioneer program was phased out and replaced by the Graduate Development Program. It is designed to enable the best, fresh graduates with an excellent bachelor or masters degree from top UAE and international universities, to gain knowledge, understanding and experience of nuclear and nuclear support functions, vital for the safe operation of Barakah Plant.

The program is normally for 18-36 months, depending on business requirements. GDP employees follow a structured development program, targeted to a specific position, delivered largely in the workplace; and which develops the young talent to become leaders in the UAE's growing nuclear energy sector. The first group of Graduate Engineers completed the program in September 2023.

Technical Working Group

The Technical Working Group (TWG) was established to research, track, and share information on the status of and progress being made by our international peer companies in the nuclear sector. TWG aims to identify and understand gaps and constraints in the sector and identify unique solutions and innovations that contribute to the success and the achievement of the UAE Peaceful Nuclear Energy Program.



07

APPENDICES

APPENDIX A :

REPORT SCOPE AND BOUNDARIES

This report encompasses the operations and activities of ENEC, its subsidiaries ENEC Operations and ENEC Commercial. This includes contractors as well. The scope extends to ENEC's headquarters activities in leased buildings in Abu Dhabi, as well as construction, operations, and maintenance activities at the Barakah Plant.

This report was compiled by gathering data and information collaboratively from various entities, including ENEC, ENEC Operations, ENEC Commercial and contractors, including the Prime Contractor.

This report provides an overview of the organization's performance and status as of December 2023. The reporting period spans from January 1, 2023, to December 31, 2023. By compiling this report, the organization gained insights into the impact of its operations. Additionally, the data identifies streams that will be monitored for future reporting and continuous improvement. No limitations regarding scope or boundaries were identified during the report's preparation.

Section of the Report	Boundaries and performance reporting
Our Economic Footprint	
Governance	ENEC, ENEC Operations, ENEC Commercial
Financial Responsibility	ENEC, ENEC Operations, ENEC Commercial
Supply Chain Management	ENEC, ENEC Operations, ENEC Commercial
Economic Development	ENEC, ENEC Operations, ENEC Commercial
Safe, Clean, Efficient and Reliable Energy	
Environment Management System (EMS)	ENEC, ENEC Operations, ENEC Commercial and Contractors
Quality, Efficiency and Reliability	ENEC, ENEC Operations, ENEC Commercial
Empowering our People	
Our Workforce	ENEC, ENEC Operations, ENEC Commercial
Occupational Safety and Health Management System (OSHMS)	ENEC, ENEC Operations, ENEC Commercial and Contractors
Security	ENEC, ENEC Operations, ENEC Commercial
National Talent Development	ENEC, ENEC Operations, ENEC Commercial
Knowledge Creation	ENEC, ENEC Operations, ENEC Commercial

APPENDIX B :

STAKEHOLDER MAPPING

Stakeholder	Description	Interest/Roles/ Expectations	Channels of Engagement
Government Entities	Federal, regional, and local government ministries and authorities	Safety, security, environment, emergency preparedness, shared infrastructure, and other resources	• Site delegations, facility tours and inspections • Regular meetings and written correspondence • Program Executive Updates • Participation in governmental initiatives and campaigns
Nuclear-specific Organizations	Nuclear-specific industry bodies including multilateral organizations, associations, and advisory bodies	Information sharing and knowledge transfer, industry best practices, safety and security, and technology, etc.	• Regular meetings and workshops • Regular reports and program updates • Delegations to site • Shared initiatives • Knowledge-sharing workshops • Interactive dialogue • Reporting • International Advisory Board • Associated events, seminars, and conferences & regional events
Media	Local, regional, and international media	On-going access to timely, comprehensive information about the project	• Arranging interviews • Site visits • Media training
International Organizations, Government and Financial Institutions	Multilateral organizations, governments of GCC Nations, governments of civilian nuclear energy programs	On-going access to timely, comprehensive information about the project	• Delegations and events • Responding to on-going requests for information
Academic Bodies	Federal, regional, and international academic institutions	Involvement in human capacity development, vocational and technical training, bachelors, and master's programs	• Energy Pioneers Programs • Regular events and career fairs at schools and universities
Non-Government Organizations (NGOs)	Environmental and social interest groups	Potential environmental and social impacts/ issues during all phases of the project	-
Prime Contractor Program Related Companies	KEPCO or its Subcontractors	Initiating and developing all construction and operation works, knowledge transfer, industry best practices, health & safety and security, technology	• Regular meetings and workshops • Regular reports and program updates • Knowledge-sharing • Interactive dialogue • Reporting • Associated events, seminars, and conferences and events
Social Actors	Including but not limited to Al Dhafra Region residents NEC, ENEC operations, ENEC commercial staff and Abu Dhabi residents	Increase awareness and knowledge, health & safety, security, environment, emergency preparedness, and shared infrastructure and other resources	• Awareness sessions • Internal engagement programs • Corporate Social Responsibilities (CSRs)
Administration, Infrastructure and Utility Organizations	Energy, electricity, and transmission companies	Obtaining Non-Objection Certificate Infra-structure works, essential urban planning activities, power supply	• Meetings • Benchmarking • Non-Objection Certificate • Regular meetings and workshops • Regular reports and program updates

APPENDIX C :

GRI CONTENT INDEX

Statement of Use	ENEC has reported in accordance with the GRI Sustainability Reporting Standard for the period January to December 2023
GRI 1 used	GRI 1: Foundation 2021
Applicable GRI Sector Standard(s)	Not Applicable

GRI Standard/ Other Source	Disclosure	Location Page no.	Omission		
			Requirement(s) Omitted	Reason	Explanation
General Disclosure					
GRI 2: General Disclosure 2021	2-1 Organizational Details	7, 17, 20	A grey cell indicates that reasons for omission are not permitted for the disclosure or that a GRI Sector Standard reference number is not available		
	2-2 Entities included in the organization's sustainability reporting	7, 22, 23			
	2-3 Reporting period, frequency and contact point	7			
	2-4 Restatements of information	87, 140, 152, 161			
	2-5 External assurance	78			
	2-6 Activities, value chain and other business relationships	24, 25, 89, 90, 91			
	2-7 Employees	146-150			
	2-8 Workers who are not employees			Information unavailable/ incomplete	
	2-9 Governance structure and composition	22, 23, 62, 65, 66			
	2-10 Nomination and selection of the highest governance body	64, 65			
	2-11 Chair of the highest governance body	65			
	2-12 Role of the highest governance body in overseeing the management of impacts	62			
	2-13 Delegation of responsibility for managing impacts	66			
	2-14 Role of the highest governance body in sustainability reporting	66			
	2-15 Conflicts of interest			Information unavailable/ incomplete	

GRI Standard/ Other Source	Disclosure	Location Page no.	Omission		
			Requirement(s) Omitted	Reason	Explanation
GRI 2: General Disclosure 2021 (Contd.)	2-16 Communication of critical concerns	67			
	2-17 Collective knowledge of the highest governance body	64			
	2-18 Evaluation of the performance of the highest governance body	64, 69			
	2-19 Remuneration policies	154		Confidentiality constraints	
	2-20 Process to determine remuneration	154		Confidentiality constraints	
	2-21 Annual total compensation ratio	154		Confidentiality constraints	
	2-22 Statement on sustainable development strategy	10, 11, 19			
	2-23 Policy commitments	67, 103, 132			
	2-24 Embedding policy commitments	77, 103			
	2-25 Processes to remediate negative impacts	102, 136			
	2-26 Mechanisms for seeking advice and raising concerns	67, 68, 146			
	2-27 Compliance with laws and regulations	70, 102			
	2-28 Membership associations	27			
	2-29 Approach to stakeholder engagement	44-49			
	2-30 Collective bargaining agreements			Not applicable	
Material Topics					
GRI 3: Material Topics 2021	3-1 Process to determine material topics	7, 38, 39	A grey cell indicates that reasons for omission are not permitted for the disclosure or that a GRI Sector Standard reference number is not available		
	3-2 List of material topics	40, 41, 42			
Infrastructure security					
GRI 3: Material Topics 2021	3-3 Management of material topics	80, 143			

GRI Standard/ Other Source	Disclosure	Location Page no.	Omission		
			Requirement(s) Omitted	Reason	Explanation
Workforce Health and Safety					
GRI 3: Material Topics 2021	3-3 Management of material topics	130			
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	132			
	403-2 Hazard identification, risk assessment, and incident investigation	132, 136			
	403-3 Occupational health services	134			
	403-4 Worker participation, consultation, and communication on occupational health and safety	134			
	403-5 Worker training on occupational health and safety	134			
	403-6 Promotion of worker health	135			
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	138			
	403-8 Workers covered by an occupational health and safety management system	137			
	403-9 Work-related injuries	139			
	403-10 Work-related ill health	139			
Regulatory and Framework Compliance - Environment and Sustainability					
GRI 3: Material Topics 2021	3-3 Management of material topics	89-91			
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	89, 91			
	308-2 Negative environmental impacts in the supply chain and actions taken	91			
Radioactive Waste Management					
GRI 3: Material Topics 2021	3-3 Management of material topics	122			

GRI Standard/ Other Source	Disclosure	Location Page no.	Omission		
			Requirement(s) Omitted	Reason	Explanation
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	132			
	403-2 Hazard identification, risk assessment, and incident investigation	132, 136			
	403-3 Occupational health services	134			
	403-4 Worker participation, consultation, and communication on occupational health and safety	134			
	403-5 Worker training on occupational health and safety	134			
	403-6 Promotion of worker health	135			
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	138			
	403-8 Workers covered by an occupational health and safety management system	137			
	403-9 Work-related injuries	139			
	403-10 Work-related ill health	139			
GRI 306: Waste 2020	306-1 Waste generation and significant waste related impacts	121, 123			
	306-2 Management of significant waste related impacts	122, 124			
	306-3 Waste generated	121, 123			
	306-4 Waste diverted from disposal	121			
	306-5 Waste directed to disposal	121			
Prevention from nuclear radiation -workers and public					
GRI 3: Material Topics 2021	3-3 Management of material topics	142, 80			
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	132			
	403-3 Occupational health services	134			
	403-4 Worker participation, consultation, and communication on occupational health and safety	134			
	403-5 Worker training on occupational health and safety	134			
	403-6 Promotion of worker health	135			
	403-8 Workers covered by an occupational health and safety management system	137			

GRI Standard/ Other Source	Disclosure	Location Page no.	Omission		
			Requirement(s) Omitted	Reason	Explanation
Plant operations					
GRI 3: Material Topics 2021	3-3 Management of material topics	24, 26, 102			
GRI 301: Materials 2016	301-1 Materials used by weight or volume	116			
GRI 302: Energy 2016	302-1 Energy consumption within the Organisation	114, 115			
	302-3 Energy intensity	115			
	302-4 Reduction of energy consumption	114			
Data protection library and strong firewall					
GRI 3: Material Topics 2021	3-3 Management of material topics	76, 83			
GRI 418: Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data			Information unavailable/ incomplete	
Research and Development					
GRI 3: Material Topics 2021	3-3 Management of material topics	54, 55, 56			
State-of-the-art training and education for employees					
GRI 3: Material Topics 2021	3-3 Management of material topics	162			
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	163			
	404-2 Programs for upgrading employee skills and transition assistance programs	158, 159, 163			
	404-3 Percentage of employees receiving regular performance and career development reviews	162		Confidentiality Constraints	
Employee turnover rate					
GRI 3: Material Topics 2021	3-3 Management of material topics	144			
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	152, 153			
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees			Information unavailable/ incomplete	
	401-3 Parental leave	154			
Non-discrimination and Equal opportunity					
GRI 3: Material Topics 2021	3-3 Management of material topics	155			
GRI 406: Non - discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	155			

GRI Standard/ Other Source	Disclosure	Location Page no.	Omission		
			Requirement(s) Omitted	Reason	Explanation
Diversity and Equal Opportunity					
GRI 3: Material Topics 2021	3-3 Management of material topics	146			
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	146, 147, 149			
	405-2 Ratio of basic salary and remuneration of women to men			Confidentiality constraints	
Local communities					
GRI 3: Material Topics 2021	3-3 Management of material topics	160			
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	88, 92, 160, 161			
	413-2 Operations with significant actual and potential negative impacts on local communities	161			
Climate risk mitigation					
GRI 3: Material Topics 2021	3-3 Management of material topics	84			
Environmental oversight					
GRI 3: Material Topics 2021	3-3 Management of material topics	126			
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	126			
	304-2 Significant impacts of activities, products and services on biodiversity	126			
	304-3 Habitats protected or restored	126			
Environmental compliance					
GRI 3: Material Topics 2021	3-3 Management of material topics	100			
GRI 2: General Disclosures 2021	2-27 Compliance with laws and regulations	101, 102			

GRI Standard/ Other Source	Disclosure	Location Page no.	Omission		
			Requirement(s) Omitted	Reason	Explanation
Emissions					
GRI 3: Material Topics 2021	3-3 Management of material topics	110			
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	111			
	305-2 Energy indirect (Scope 2) GHG emissions	111			
	305-3 Other indirect (Scope 3) GHG emissions	111			
	305-4 GHG emissions intensity	112			
	305-5 Reduction of GHG emissions	110			
	305-6 Emissions of ozone-depleting substances (ODS)			Information unavailable/ incomplete	
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions			Information unavailable/ incomplete	
Supply Chain Assessment on ESG					
GRI 3: Material Topics 2021	3-3 Management of material topics	89			
GRI 2: General Disclosures 2021	2-6 Activities, value chain and other business relationships	24, 25, 89, 90, 91			
Procurement practices					
GRI 3: Material Topics 2021	3-3 Management of material topics	89, 90, 91			
GRI 204: Procurement Practices 2016	204-1 Proportion of spending on local suppliers	92			
Market Presence, Anti-Corruption and Anti-Competitive Behaviorer privacy					
GRI 3: Material Topics 2021	3-3 Management of material topics	20, 22, 23, 62, 72			
GRI 202: Market Presence 2016	202-2 Proportion of senior management hired from the local community	161			
GRI 205: Anti-Corruption 2016	205-1 Operations assessed for risks related to corruption	72, 73			
	205-2 Communication and training about anti-corruption policies and procedures	73			
GRI 206: Anti-competitive Behavior 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practice	72, 73			

GRI Standard/ Other Source	Disclosure	Location Page no.	Omission		
			Requirement(s) Omitted	Reason	Explanation
Economic performance					
GRI 3: Material Topics 2021	3-3 Management of material topics	86			
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	86, 87			
	201-2 Financial implications and other risks and opportunities due to climate change	86			
	201-3 Defined benefit plan obligations and other retirement plans			Information unavailable/ incomplete	
	201-4 Financial assistance received from government	86			
Energy					
GRI 3: Material Topics 2021	3-3 Management of material topics	114			
GRI 302: Energy 2016	302-1 Energy consumption within the Organisation	114			
	302-2 Energy consumption outside of the Organisation			Information unavailable/ incomplete	
	302-3 Energy intensity	115			
	302-4 Reduction of energy consumption	114			
	302-5 Reductions in energy requirements of products and services			Information unavailable/ incomplete	
Addressing the grievances for workforce and contractors					
GRI 3: Material Topics 2021	3-3 Management of material topics	136, 156			
Socio-economic Compliance					
GRI 3: Material Topics 2021	3-3 Management of material topics	88			
Indirect economic impact					
GRI 3: Material Topics 2021	3-3 Management of material topics	94, 95			
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	96, 97			
	203-2 Significant indirect economic impacts	96, 97			

GRI Standard/ Other Source	Disclosure	Location Page no.	Omission		
			Requirement(s) Omitted	Reason	Explanation
Water and Effluents					
GRI 3: Material Topics 2021	3-3 Management of material topics	118, 119			
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	118			
	303-2 Management of water discharge related impacts	119			
	303-3 Water Withdrawal	118			
	303-4 Water Discharge	119			
	303-5 Water Consumption	118			

APPENDIX D :

ACRONYMS AND GLOSSARY

ACRONYMS			
ADAA	Abu Dhabi Accountability Authority	ATF	Accident Tolerant Fuels
ADCMC	Abu Dhabi Emergency, Crisis, and Disasters Management Centre	ATSITE	Accountability, Teamwork, Safety, Integrity, Trust, and Excellence
ADPoly	Abu Dhabi Polytechnic	BC	Business Continuity
ADQ	Abu Dhabi Development Holding Company	BCM	Business Continuity Management
ADSG	Abu Dhabi Sustainability Group	BID	Business and Industrial Development
ADWEC	Abu Dhabi Water and Electricity Company	BNEP/ Barakah Plant	Barakah Nuclear Energy Plant
ADX	Abu Dhabi Securities Exchange	BOC	Barakah One Company
AFMP	Anti-Fraud and Misconduct Program	BYC	Barakah Youth Council
ALARP	As low as reasonably practicable	CAF	Combined Assurance Framework
APR	Advanced Power Reactor	CAPEX	Capital Expenditure
AR	Advanced Reactor	CEMP	Construction Environmental Management Plan
ARCC	Audit, Risk and Compliance Committee	CEO	Chief Executive Officer
ASME	American Society of Mechanical Engineers	CICPA	Critical Infrastructure and Coastal Protection Authority
CMS	Compliance Management System	DoF	Department of Finance
CNP	Committee on Nuclear Power	DoH	Department of Health
CO2	Carbon Dioxide	EAC	Energy Attribute Certificates
COIT	Certified Operator Initial Training	EAD	Environment Agency of Abu Dhabi
ConvEx-3	IAEA International Emergency Response Exercise	ECC	Enterprise Compliance Council
COP	Conference of the Parties	ECP	Employee Concerns Program
COSO	Committee of Sponsoring Organizations	ECRB	Enterprise Compliance Review Board
CPO	Chief Program Office	EDMP	Enterprise Data Management Program
CR	Condition Reporting	E-Fusion	Event organized in collaboration between ENEC, Business France, and GIFEN
CSG	Corporate Strategy and Governance	EMEG	Emirates Marine Environmental Group
CSIRT	Cyber Security Incident Response Team	EMS	Environmental Management System
DAW	Dry Active Waste	ENEC	Emirates Nuclear Energy Company
DED	Abu Dhabi Department of Economic Development	ENTC	Emirates Nuclear Technology Center

ACRONYMS			
DOA	Delegation of Authority	ERM	Enterprise Risk Management
DoE	Department of Energy	ERMC	Enterprise Risk Management Committee
ESG	Environmental, Social and Corporate Governance	HIRD	Harassment, intimidation, retaliation, or discrimination
ESWG	External Stakeholders Working Group	HQ	Headquarters
EWEC	Emirates Water and Electricity Company	HSE	Health, Safety and Environment
FANR	Federal Authority for Nuclear Regulation	HSEMS	Health, Safety, Environment Management System
GCC	Gulf Cooperation Council	HSES	Health, Safety, Environment and Sustainability
GDP	Gross Domestic Product	IAEA	International Atomic Energy Agency
GHG	Greenhouse Gas	ICT	Information and Communications Technology
GIFEN	Groupement des Industriels Français de l'Energie Nucléaire	ICV	In-Country Value
GIMI	Global Innovation Management Institute	IDPs	Individual Development Plans
GJ	Gigajoules	IEA	International Energy Agency
GOSP	Governance, Oversight, Support and Performance	IIA	Institute of Internal Auditors
GRI	Global Reporting Initiative	IMS	Integrated Management System
HCC	Human Capital Committee	INPO	Institute of Nuclear Power Operations
HDNT	Higher Diploma of Nuclear Technology	ISO	International Organization for Standardization
HFE	Human Factors Engineering	JV	Joint Venture
KEPCO	Korea Electric Power Corporation	MoU	Memorandum of Understanding
KEXIM	Export–Import Bank of Korea	MS	Management Systems
KFED	Khalifa Fund for Enterprise Development	MTCO2eq	Million Tons Carbon Dioxide Equivalent
KNA	Korea Nuclear Association	MW	Megawatts
KPI	Key Performance Indicator	NCEMA	National Emergency Crisis and Disasters Management Authority
KU	Khalifa University of Science and Technology	NDE	Non-Destructive Examination
HDNT	Higher Diploma of Nuclear Technology	ISO	International Organization for Standardization
HFE	Human Factors Engineering	JV	Joint Venture
KEPCO	Korea Electric Power Corporation	MoU	Memorandum of Understanding

ACRONYMS

KEXIM	Export–Import Bank of Korea	MS	Management Systems
KFED	Khalifa Fund for Enterprise Development	MTCO2eq	Million Tons Carbon Dioxide Equivalent
KNA	Korea Nuclear Association	MW	Megawatts
KPI	Key Performance Indicator	NCEMA	National Emergency Crisis and Disasters Management Authority
KU	Khalifa University of Science and Technology	NDE	Non-Destructive Examination
kWh	Kilowatt hour	NGOs	Non-Government Organizations
LLW	Low-level waste	NOSS	National Occupational Skill Standards
LMS Taqa	Learning Management System Taqa	NQA	National Qualification Authority
LTIFR	Lost Time Injury Frequency Rate	NQA-1	ASME Nuclear Quality Assurance
MCR	Main Control Room	NSRB	Nuclear Safety Review Board
MD & CEO	Managing Director & Chief Operating Officer	ODCM	Offsite Dose Calculation Manual
MEPRA	The Middle East Public Relations Association	OEMP	Operational Environmental Management Plan
MNCs	Multinational Companies	SCWE	Safety Conscious Work Environment
MOIAT	Ministry of Industry and Advanced Technology	SIs	Strategic Indicators
OSH	Occupational Safety and Health	SMAT	Sustainability Maturity Assessment Tool
OSHAD	Abu Dhabi Centre for Occupational Safety and Health	SMEs	Small and Medium-sized Enterprises
OHSMS	Occupational Health and Safety Management System	SMRs	Small Modular Reactors

ACRONYMS

PI	Principal Investigator	SRO	Senior Reactor Operator
PJSC	Public Joint Stock Company	Tadweer	The Abu Dhabi Waste Management Centre
PPA	Power Purchase Agreement	TAMM	Abu Dhabi Government Service
PPP	Physical Protection Plan	TFA	Technical Focus Area
PPP-O	Physical Protection Plan for Operation	TNA	The National Aquarium
PSC	Procurement and Supply Chain	TRCFR	Total Recordable Case Frequency Rate
Q	Quarter	TW	Terawatt
Q+NOSS	National Principal Qualifications	UAE	United Arab Emirates
QA	Quality Assurance	UN	United Nations
RA	Risk Assessment	UNFCCC	United Nations Framework Convention on Climate Change
R&D	Research & Development	UN SDGs	United Nations Sustainable Development Goals
REMP	Radiological Environmental Monitoring Program	US	United States
O&M	Operations & Maintenance	USD	United States Dollar
OLA	Operating License Approval	VETAC	Vocational Education and Training Awards Council
RO	Reactor Operator	WANO	Word Association of Nuclear Operations
RTP	Registered Training Provider	WFES	World Future Energy Summit
SAT	Systematic Approach to Training	WNA	World Nuclear Association
SCBA	Self-Contained Breathing Apparatus	WiN	Women in Nuclear

GLOSSARY

Biodiversity	All the different kinds of life you'll find in one area—the variety of animals, plants, fungi, and even microorganisms like bacteria that make up our natural world. Each of these species and organisms work together in ecosystems, like an intricate web, to maintain balance and support life.
Climate Change	Describes changes in the variability or average state of the earth's atmosphere over time scales ranging from decades to millions of years.
Emiratization	A national program initiated by the government of the United Arab Emirates to proactively increase the number of UAE Nationals in the public and private sectors, to empower UAE Nationals and reduce dependency on foreign workers.
Environmental Management System	The management of environmental programs in a comprehensive, systematic, planned, and documented manner. It includes the organizational structure, planning, and resources for developing, implementing, and maintaining policy for environmental protection.
GRI Sustainability Reporting Standards	A framework, managed by the GRI, for reporting on an organization's economic, environmental, and social performance.
GRI	The Global Reporting Initiative (GRI) is the independent, international organization that helps businesses and other organizations take responsibility for their impacts, by providing them with the global common language to communicate those impacts.
Greenhouse Gas Emissions	Anthropogenic gas emissions which increase the natural trapping of incoming solar radiation (the Greenhouse Effect) inside the earth's atmosphere. This increases the earth's global mean surface temperature and is the primary driver of climate change. These gases include carbon dioxide, methane, and hydrofluorocarbon emissions.
Gulf Cooperation Council	A political and economic union involving the six Arab states of the Arabian Gulf with many economic and social objectives.
Materiality	Refers to an organization's significant economic, environmental and social impacts, or to issues that substantively influence the assessments and decisions of stakeholders. Primary Audience: Sustainability practitioner community, stakeholders, investors, ESG data providers.
Net Zero	Refers to the balance between the amount of greenhouse gas (GHG) that's produced and the amount that's removed from the atmosphere. It can be achieved through a combination of emission reduction and emission removal.
Nuclear Energy	The energy released during nuclear fission or fusion, especially when used to generate electricity.
Nuclear Fission	When the nucleus of an atom splits and releases energy, primarily in the form of heat. Nuclear energy plants use steam, turbines, and generators to turn the heat released by nuclear fission into electricity.
Nuclear Fuel Cycle	The series of industrial processes, which involve the production of electricity from uranium in nuclear energy reactors. This can include uranium discovery, conversion, enrichment, de-conversion, and fuel fabrication, use of fuel in reactors, storage, reprocessing, and disposal.
Occupational Health and Safety	A cross-disciplinary area concerned with protecting the safety, health and welfare of people engaged in work or employment.
Radioactive	Emitting or relating to the emission of ionizing radiation or particles.
Renewable	Energy Energy from a source that is not depleted when used.
Stakeholder Engagement	The process by which a firm's stakeholders engage in dialogue to improve a firm's decision-making and accountability toward sustainable development.
Stakeholders	A party that affects or can be affected by the actions of a business.
Sustainability	Sustainable development has been commonly defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." Brundtland Report for the World Commission on Environment and Development (1992)
Sustainability Reporting	The voluntary public presentation of information about an organization's environmental, social, and economic performance over a time, usually released annually.International standards around reporting, such as GRI, make sustainability reporting a platform for sharing and benchmarking individual company as well as sector-wide performance. Sustainability reporting may be published as a stand-alone document, on a company website or incorporated into an annual report.

APPENDIX E :

GCC ESG METRICS

Category	ADX Metric	Page No./or Notes	GRI Topic Standards	Corresponding UN SDG
GOVERNANCE	G1. Board Diversity	65	GRI 405: Diversity and Equal Opportunity 2016	5 GENDER EQUALITY
	G2. Board Independence	64	-	-
	G3. Incentivized Pay	-	-	-
	G4. Supplier Code of Conduct	72, 89	-	-
	G5. Ethics & Prevention of Corruption	72, 73	-	16 PEACE, JUSTICE AND STRONG INSTITUTIONS
	G6. Data Privacy	82, 83	-	-
	G7. Sustainability Reporting	Yes, Annual Reporting	-	-
	G8. Disclosure Practices	GRI 2021 Standards	-	-
	G9. External Assurance	No	-	-

Category	ADX Metric	Page No./or Notes	GRI Topic Standards	Corresponding UN SDG
SOCIAL	S1. CEO Pay Ratio	-	GRI 2: General Disclosures 2021	-
	S2. Gender Pay Ratio	-	GRI 405: Diversity and Equal Opportunity 2016	-
	S3. Employee Turnover	152, 153	GRI 401: Employment 2016	
	S4. Gender Diversity	147, 148	GRI 405: Diversity and Equal Opportunity 2016	
	S5. Temporary Worker Ratio	-	-	-
	S6. Non-Discrimination	155	GRI 406: Non-discrimination 2016	
	S7. Injury Rate	137, 139	GRI 403: Occupational Health and Safety 2018	
	S8. Global Health & Safety	130, 132	GRI 3: Material Topics 2021	-
	S9. Child & Forced Labor	-	-	-
	S10. Human Rights	-	-	-
	S11. Nationalization	160, 161	GRI 413: Local Communities 2016	
	S12. Community Investment	88	GRI 413: Local Communities 2016	-

Category	ADX Metric	Page No./or Notes	GRI Topic Standards	Corresponding UN SDG
ENVIRONMENT	E1. GHG Emissions	111	GRI 305: Emissions 2016	
	E2. Emissions Intensity	112		
	E3. Energy Usage	115	GRI 302: Energy 2016	
	E4. Energy Intensity	115		
	E5. Energy Mix	114	GRI 302: Energy 2016	
	E6. Water Usage	118	GRI 303: Water and Effluents 2018	
	E7. Environmental Operations	100, 102	GRI 3: Material Topics 2021	-
	E8. Environmental Oversight	100, 102	GRI 2: General Disclosures 2021	-
	E9. Environmental Oversight	66	GRI 2: General Disclosures 2021	-
	E10. Climate Risk Mitigation	-	-	-

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