



POWERING A SUSTAINABLE FUTURE

SUSTAINABILITY
REPORT 2024



About this Report

GRI 2021: 2-2, 2-3

The 2024 Sustainability Report provides a comprehensive and transparent update on the Emirates Nuclear Energy Company's (ENEC) long-term commitment to sustainability, detailing our approach, initiatives, and performance in fulfilling our environmental, social, and economic responsibilities.

The report covers the activities of the Barakah Nuclear Energy Plant, managed by the Emirates Nuclear Energy Company. ENEC has two subsidiaries: ENEC Operations, which is mandated to operate and maintain the Barakah Plant; and ENEC Commercial, which is responsible for managing the plant's financial aspects.

As we continue to advance our sustainability program, this report highlights how we integrate sustainability into our strategy and operations, focusing on the most material issues impacting our business while addressing the evolving needs of our community, environment, and the United Arab Emirates (UAE).

Reporting Standards

This report is prepared in accordance with the GRI Sustainability Reporting Standards, incorporating the Abu Dhabi Securities Exchange (ADX) key performance indicators. Additionally, it articulates our firm commitment to the United Nations (UN) Sustainable Development Goals (SDGs). Please refer to the Appendix to view the GRI content index and GCC ESG metrics.

Reporting Boundaries

This report covers the period from 01 January 2024 and 31 December 2024. The specific reporting boundaries of each key performance indicator have been mentioned in the report. The report covers all aspects of our business where we have 100% operational control.

For questions or comments regarding this report and our sustainability program, please visit www.enec.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 provider.



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Introduction from ENEC's Executive Leadership



– H.E. Mohamed Al Hammadi

Managing Director and Chief Executive Officer

POWERING A SUSTAINABLE FUTURE

At the Emirates Nuclear Energy Company (ENEC), 2024 marks a defining moment in our journey towards powering a sustainable future with clean energy as all four units of the Barakah Nuclear Energy Plant become fully operational – just eight years after construction began.

The Barakah Plant is now generating 40 TWh of carbon-free electricity annually, supplying 25% of the UAE's electricity demand while preventing 22.4 million tons of carbon emissions each year. ENEC, as a key driver of decarbonisation, is delivering 24% of the UAE's 2030 Nationally Determined Contribution (NDC) targets, reinforcing nuclear energy as a cornerstone of the nation's energy security and sustainability.

Sustainability is embedded in every aspect of our operations, benefiting the environment, society, and economy. Since our inception in 2009, ENEC has evolved into a global leader in nuclear energy, with a highly skilled workforce of over 3,000 professionals from 50 nationalities. ENEC's operations contribute significantly to economic growth by strengthening the UAE's local supply chain, fostering job creation, and accelerating the green economy. This year, we further reinforced our commitment by adopting a green financing model for the Barakah Plant.

ENEC is exploring advanced nuclear technologies, including Small Modular Reactors (SMRs) and microreactors, to help triple global nuclear capacity by 2050. Through strategic partnerships, we are driving the next phase of clean energy innovation, leveraging our capabilities to develop further projects in UAE and collaborating in projects overseas.

For us investing in people is as vital as investing in technology. Our focus is on the future, we are dedicated to nurturing the next generation of nuclear professionals by supporting youth-led projects, offering specialized training, and equipping future leaders with the skills needed to drive the industry forward. With our expertise and vision, we stand at the threshold of a new era, defined by ground breaking initiatives that will shape the future of sustainable energy.

Backed by a dedicated team and a revitalized brand, we proudly present the 2024 Sustainability Report, highlighting our commitment to meaningful change and a cleaner, more resilient future. We extend our sincere gratitude to our stakeholders for their unwavering support. Together, we are building a future powered by clean energy, innovation and sustainability.

GRI 2021: 2-22

JOURNEY OF ENEC

2009
ENEC was established

2012
Construction of Unit 1 started

2013
Construction of Unit 2 started

2014
Construction of Unit 3 started

2015
Construction of Unit 4 started

2021
Unit 1 Commercial Operations

2022
Unit 2 Commercial Operations

2022
Unit 2 Commercial Operations

2022
Unit 2 Commercial Operations

2023
Unit 3 Commercial Operations

2023
Unit 3 Commercial Operations

2024
Unit 4 Commercial Operations



OUR PERFORMANCE IN 2024

TOWARDS NET ZERO



- **0.97**
MTCO₂eq./GWh
GHG Emission Intensity
- **7,289,619**
MTCO₂ eq.
GHG Emission Offset

KEEPING OUR PEOPLE SAFE



- **0**
Lost Time Injury Frequency Rate (LTIFR) for employees
- **0**
Total Recordable Case Frequency Rate (TRCFR) for employees

EMPOWERING OUR PEOPLE



- 1.88**
AED; Millions
Community investments
- 581,090**
Training Hours
Training and Development

PROTECTING OUR ENVIRONMENT



- **265,331** GJ
 - Energy Usage
 - Energy Intensity 89 GJ/person
- **112,396**
Water Consumption
100% Recycling onsite



ABOUT ENEC

EMIRATES NUCLEAR ENERGY COMPANY (ENEC) Pioneering Sustainable Nuclear Energy for a Clean and Prosperous Future



A T S I T E

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 activities within and across organizational boundaries, demonstrating a strong sense of collaboration and cooperation in connection with projects and operational activities

SAFETY

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

A T S I T E

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

EXCELLENCE

We actively pursue excellence through the continuous performance improvement of our projects, programs, and processes, which drives greater effectiveness and efficiency in pursuit of outstanding and sustainable results

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 stakeholders, and the general public



1. Emirates Nuclear Energy Company

GRI 2021: 2-1, 2-2, 2-6

The Emirates Nuclear Energy Company (ENEC) is headquartered in Masdar City, Abu Dhabi, United Arab Emirates (UAE). ENEC is a Public Joint Stock Company (PJSC) owned by Abu Dhabi Development Holding Company (ADQ), one of the region's largest holding companies and one of the investment arms of the Government of Abu Dhabi. ENEC is responsible for delivering the UAE Peaceful Nuclear Energy Program and the development of the Barakah Nuclear Energy Plant, located in the Al Dhafra Region of Abu Dhabi Emirate, United Arab Emirates. The Barakah Plant consists of four APR1400 nuclear reactors, and is the largest source of electricity in the UAE and wider Arab World today – with every watt produced carbon free.

ENEC has made significant progress in the delivery of the UAE Peaceful Nuclear Energy Program. As of today, the four units at the Barakah Plant are operating commercially, generating 40TWh 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 plant is integral to the UAE's efforts to meet its growing electricity demands and achieving Net Zero by 2050. It serves as a role model for other nations seeking to join the nuclear industry.

ENEC is ready to support this wave of global growth by continuing to leverage its proven capabilities to develop further projects in the UAE, and build a regional hub and supply chain for nuclear energy in the UAE, as well as investing and partnering in projects overseas, both in large gigawatt plants and SMRs and microreactors.

About ENEC <https://www.enec.gov.ae/about-us/overview/>

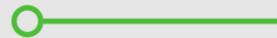


1.1 Our Business Subsidiaries

GRI 2021: 2-1, 2-2, 2-6, 2-9

ENEC OPERATIONS

ENEC Operations, a subsidiary of ENEC and partially owned by KEPCO, is responsible for the safe operation and maintenance of the Barakah Plant. Led by Emiratis and supported by a diverse, multinational experts, ENEC Operations is committed to operational excellence and developing future nuclear energy leaders.



ENEC COMMERCIAL

ENEC Commercial, a joint venture between ENEC and partially owned by KEPCO, manages the financial and commercial aspects of the Barakah Plant. It ensures adherence to the highest standards across all contracts, including the Prime Contract. In October 2016, ENEC Commercial signed a Power Purchase Agreement (PPA) with the Emirates Water and Electricity Company (EWEC), setting the price-per-kilowatt for electricity from the four units.



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 ENEC Operations and ENEC Commercial, holding 18 percent in each subsidiary, while ENEC maintains the majority share of 82 percent in each subsidiary.



1.2 ENEC – Powering a Sustainable Future

The Barakah Plant is integral to the UAE’s efforts to meet its growing electricity demands and achieving Net Zero by 2050. In 2024, ENEC has unveiled a dynamic new brand identity, highlighting its evolution as a strategic national player in clean energy security, with ambitions to becoming a leading global nuclear energy company.

This rebranding reflects ENEC’s enhanced role as an investor, developer, and generator of clean electricity—not only within the UAE but also on the global stage. With a strong focus on scaling advanced nuclear technologies and building high-impact partnerships, ENEC is driving innovation and energy security beyond borders.

ENEC is also unlocking the broader potential of nuclear energy through co-generation solutions—including the production of heat, steam, hydrogen, and ammonia—and forming strategic alliances with leading local and global tech players. This positions the UAE as a hub for nuclear innovation and strengthens ENEC’s leadership in accelerating global decarbonization. The refreshed brand identity unifies ENEC efforts and aligns with its mission, underscoring its commitment to shaping a sustainable energy future worldwide.

REBRANDING AT ENEC





1.3 The Barakah Plant

GRI 2021: 2-1, 2-6

Built to the highest standards of safety and quality, the Barakah Plant exemplifies rigorous project management and operational excellence.

The Barakah Nuclear Energy Plant is a transformative pillar of the UAE’s sustainable development strategy and a global benchmark for clean energy innovation. The Commercial Operations of Unit 4 in April 2024 marked a historic milestone in climate action as Barakah became the first fully operational multi-unit nuclear plant in the Region. Now supplying up to 25% of the nation’s electricity needs, the plant generates reliable, baseload electricity 24/7 without producing carbon emissions. Beyond environmental impact, the Barakah Plant supports high-value job creation, enhances energy diversification, contributes to the development of a skilled, knowledge-based workforce and enables future clean technologies. It reinforces the UAE’s energy security and plays a critical role in achieving Net Zero by 2050, positioning the nation as a leader in peaceful nuclear energy and long-term sustainability.

OPERATING AND REGULATORY LICENSES

ENEC and its subsidiaries uphold the highest standards of quality and transparency in operating the Barakah Nuclear Energy Plant. All activities are regulated by the Federal Authority for Nuclear Regulation (FANR) and subject to oversight from the Nuclear Safety Review Board (NSRB). Independent evaluations by senior experts from the International Atomic Energy Agency (IAEA) and the World Association of Nuclear Operators (WANO) further reinforce the safety and integrity of the UAE Peaceful Nuclear Energy Program. Since 2009, the program has undergone over 470 FANR inspections, alongside continuous assessments by IAEA and WANO to ensure compliance with international standards.

On September 5, 2024, Unit 4 successfully entered Commercial Operations, marking the full delivery of the Barakah Plant - a historic milestone for the UAE in the pursuit of safe, clean, and sustainable energy.

MEMBERSHIPS

GRI 2021: 2-28



SUSTAINABILITY AT ENEC

The Barakah Plant's progress in all facets of design, construction and operation is an exemplary demonstration of ENEC's commitment to sustainability and UAE's Net Zero ambitions.



2 Sustainability at ENEC

Now more than ever, finding sustainable and reliable energy solutions is essential for us to live, grow, and progress while ensuring long-term environmental stewardship and resilience. Since construction began in 2012 through to achieving commercial operations of Unit 4 of the Barakah Nuclear Energy Plant in 2024, the UAE Peaceful Nuclear Energy Program has provided a remarkable success story.

**SUSTAINABLE
ENERGY**



2.1 Strategic Outlook

Our vision is to drive sustainable growth in the UAE by delivering innovative, low-carbon energy solutions, upholding a strong nuclear safety culture, and achieving operational excellence. We are committed to continuous investment in resilient nuclear value chains and future growth opportunities. ENEC's Environmental, Social and Governance (ESG) strategy is shaped by our core imperatives, with key focus areas that reflect both our current position and long-term aspirations. Through our organization's ESG Policy, we have adopted an integrated approach that addresses the material issues most important to our stakeholders – aiming to create lasting positive impact for our people, our environment, and the broader economy.

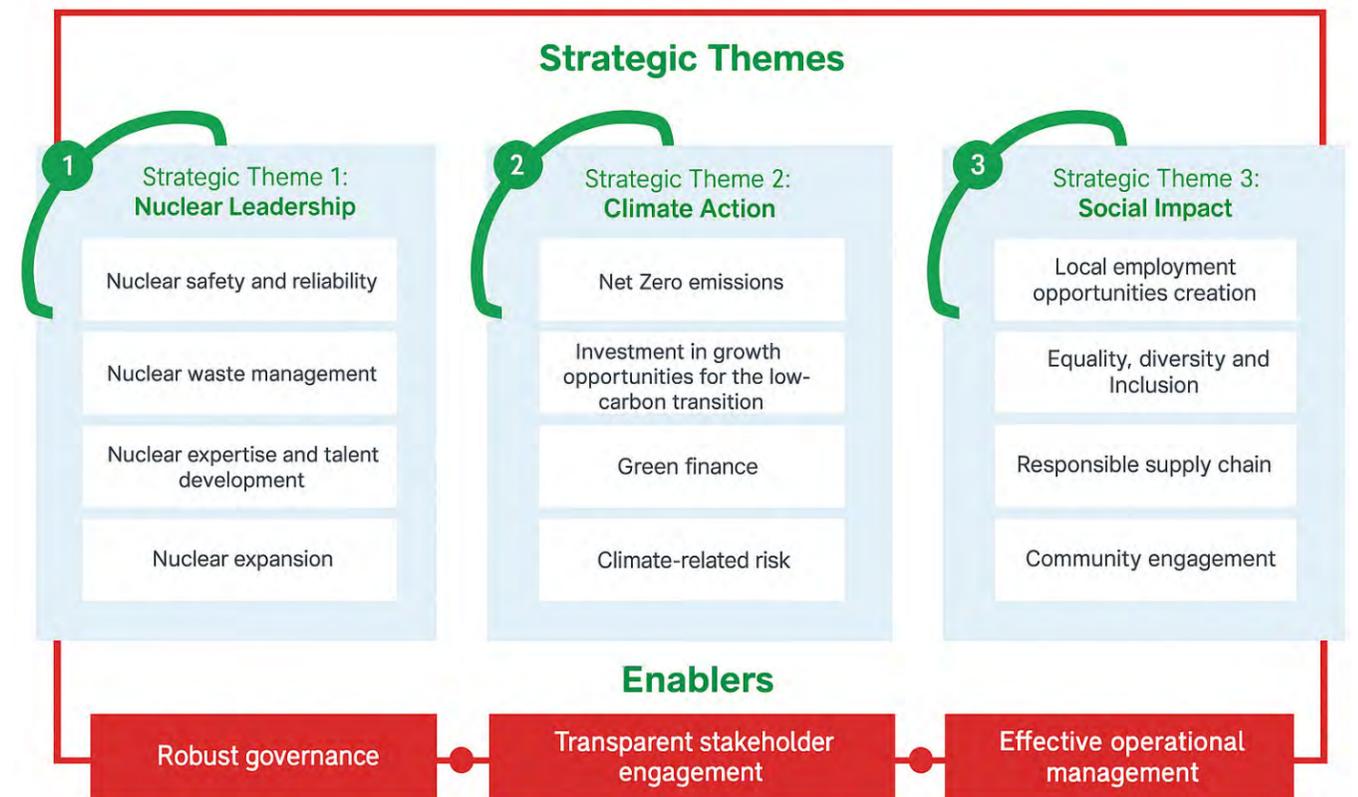
SUSTAINABILITY MANAGEMENT

GRI 2021: 2-23

We developed the Environmental, Social, and Governance (ESG) Policy in 2023 to formalize and embed our commitment to responsible operations, social inclusion, governance, and business ethics. This policy aligns with the ESG priorities and objectives established across ENEC and its subsidiaries in line with the broader ESG Strategy.

The policy champions the mission to a low-carbon future in the Region and beyond by expanding our provision of clean energy to new and innovative technologies, pursuing Net Zero, and demonstrating leadership regionally and internationally.

Our strategic themes are centered on key sustainability and ESG priorities, and are aligned with international benchmarks, including the UN Sustainable Development Goals (UNSDGs), GRI sustainability reporting standards, and the ADX ESG disclosure guidelines.



Key objectives under our strategic themes include:



**STRATEGIC THEME 1:
NUCLEAR LEADERSHIP**

Ensuring the safety of nuclear operations remains our top priority while building a strong talent pipeline and demonstrating our ability to provide nuclear leadership on a global scale



**STRATEGIC THEME 3:
SOCIAL IMPACT**

Continuously enhance our position as a socially progressive employer and provide long-term, positive impacts to employees and our local community



**STRATEGIC THEME 2:
CLIMATE ACTION**

Championing the mission to a low-carbon future in the region and beyond by expanding our provision of clean energy to new and innovative technologies, pursuing Net Zero, and demonstrating leadership regionally and internationally



**KEY ENABLER:
ROBUST GOVERNANCE**

Through robust and transparent governance, the organization demonstrates its commitment to sustainable practices and providing transparency around its decision-making processes

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).

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, the framework focuses the organization's attention, facilitating successful strategy execution. This framework is articulated via strategic themes, underlying objectives, and supporting initiatives aimed at realizing desired outcomes in terms of environment, 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 met and/or exceeded targets on several indicators by a substantial margin.

2.2. Our Material Topics

GRI 2021: 3-1, 3-2

Materiality assessment is a critical component of our sustainability strategy and reporting framework. By actively engaging with a broad range of stakeholders, we ensure material topics are identified and addressed from both internal and external perspectives.

ENEC adopted a structured approach to update its materiality list for 2024, carefully assessing each topic's relevance to GRI disclosures, business priorities, and the latest ESG Policy. The material topics identified in the 2022 and 2023 assessments were reviewed by stakeholders, and aligned with ENEC's ESG and sustainability themes, ensuring they are mapped to the appropriate disclosure standards, ENEC's ESG Policy, national and global frameworks such as the UAE Energy Strategy 2050, Abu Dhabi Economic Vision 2030, ADX ESG Guidelines, and the UN SDGs.



SUPPORTING UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

We are committed to supporting the United Nations Sustainable Development Goals (UN SDGs). As an energy company, we are aware that our activities touch every SDG in some way, but our focus is on those SDGs with the closest relation to our activities, our strategic focus and where we are best placed to make a positive impact. 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.



GOOD HEALTH AND WELLBEING

We actively promote health and wellbeing and encourage our employees and the communities to maintain active and healthy lifestyle. Integrated approach to health and safety ensures highest safety standards in our nuclear operations to protect public health and the environment. We also support community well-being through health and safety training, emergency preparedness, and nuclear safety measures.

Please refer to the section on Health and Safety and Nuclear Safety and Reliability



QUALITY EDUCATION

We have been supporting quality education by investing in various programs to develop skilled nuclear professionals as well as youth led programs to build a local talent pool for sustainable future operations. We also collaborate with universities to promote STEM education and build a strong foundation for future talent.

Please refer to the section on Nuclear Expertise and Talent Development



GENDER EQUALITY

By promoting equal opportunities for women in the nuclear energy sector. Through initiatives like the Women in Nuclear (WiN) UAE chapter, we empower women to take on leadership roles and actively contribute to the industry's growth.

Please refer to the section on Our Workforce



INDUSTRY, INNOVATION AND INFRASTRUCTURE

We have contributed to the successful accomplishment of the UAE's peaceful nuclear energy program and delivered a major infrastructure project for the nation. We continuously strive to drive innovation through research and collaborations on advanced nuclear technologies, advancing toward a sustainable and growth-oriented future.

Please refer to the section on Nuclear Expansion



REDUCED INEQUALITIES

We are fostering an inclusive workplace, which prohibits discrimination and values diversity with equal opportunities for all, regardless of gender, nationality, or background. We are committed to empowering Emiratis through education, training and career development.

Please refer to the section on Our Workforce



RESPONSIBLE CONSUMPTION & PRODUCTION

We follow strict environmental and regulatory standards to minimize our environmental footprint and promote long-term sustainability in our operations by ensuring the safe and responsible management of nuclear materials, resources and waste.

Please refer to the section on Climate Action



CLEAN WATER AND SANITATION

ENEC promotes responsible water use through conservation initiatives, such as water-efficient infrastructure and recycling systems, and by protecting marine ecosystems through the development of artificial reefs and regular environmental monitoring near the Barakah Nuclear Energy Plant.

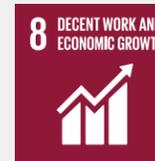
Please refer to water management under section on Climate Action



AFFORDABLE AND CLEAN ENERGY

We are delivering safe, reliable, and zero carbon nuclear energy to power UAE. Our work and Barakah Nuclear Energy Plant helps diversify the nation's energy mix and reduce reliance on fossil fuel further advancing on our path towards Net Zero.

Please refer to energy management under section on Climate Action



DECENT WORK AND ECONOMIC GROWTH

We invest in developing local talent and ensure safe, fair, and inclusive work environment for our workforce. Our focus has been on creating high-quality jobs and fostering a knowledge based economy through our nuclear energy program.

Please refer to the section on Our Workforce, Robust Governance and Responsible Supply Chain



CLIMATE ACTION

ENEC is committed to combat climate change impacts through UAE's first peaceful nuclear energy plant. By generating carbon-free electricity and significantly reducing GHG emissions, Barakah Nuclear Energy Plant is advancing the UAE's transition to a low-carbon, sustainable energy future.

Please refer to the section on Climate Action



LIFE BELOW WATER

By implementing stringent environmental protection measures to prevent any impact on marine ecosystems. Through careful monitoring and compliance with national and international regulations, we ensure our operations safeguard the surrounding marine environment.

Please refer to biodiversity under section on Climate Action



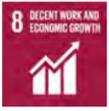
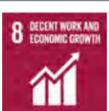
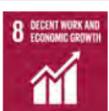
PEACE, JUSTICE AND STRONG INSTITUTIONS

We uphold the highest standards of governance, transparency, and regulatory compliance. We are committed to ethical operations, stakeholder accountability, and building trust through responsible and lawful business practices.

Please refer to the section on Robust Governance

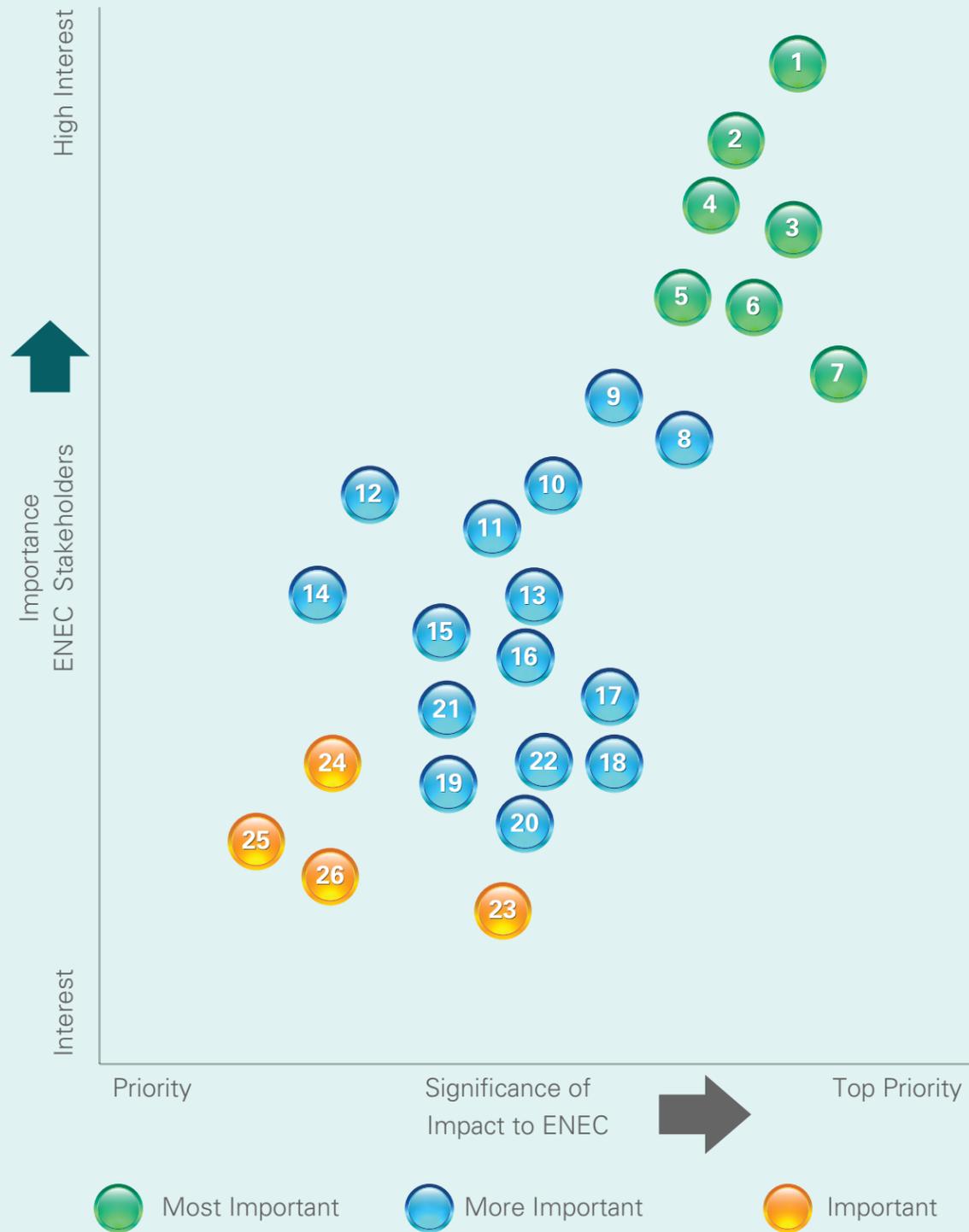
MATERIALITY LIST

GRI 2021: 3-2

#	UN SDG	ADX	GRI Standard	Description	Strategic Theme	Boundaries
1				Infrastructure Security	Nuclear Leadership	ENEC
2	 	S7	403, 414	Workforce Health and Safety	Nuclear Leadership	ENEC and Contractors
3	-		308	Regulatory and Framework Compliance - Environment and Sustainability	Robust Governance	ENEC and Contractors
4		E7	403, 306	Radioactive Waste Management	Nuclear Leadership	ENEC
5		S8	403	Prevention from Nuclear Radiation – Workers and Public	Nuclear Leadership	ENEC and Community
6	-	E3	301, 302	Plant Operations	Nuclear Leadership	ENEC
7	-	G6	418	Data Protection Library and Strong Firewall	Nuclear Leadership	ENEC
8				Research and Development	Nuclear Leadership	ENEC
9			404	State-of-the-art Training and Education for Employees	Nuclear Leadership	ENEC
10	-	S3	401	Employee Turnover Rate	Social Impact	ENEC
11	 	S6	406	Non-Discrimination and Equal Opportunity	Social Impact	ENEC
12	 	S4	405	Diversity and Equal Opportunity	Social Impact	ENEC
13		S12	413	Local Communities	Social Impact	ENEC

#	UN SDG	ADX	GRI Standard	Description	Strategic Theme	Boundaries
14				Climate Risk Mitigation	Climate Action	ENEC
15		E8	304	Environmental Oversight	Climate Action	ENEC
16	-	G8	2-27	Environmental Compliance	Climate Action	ENEC
17		E1	305	Emissions	Climate Action	ENEC
18	-		2-6	Supply Chain Assessment on ESG	Social Impact	ENEC and Contractors
19	-	G4	204	Procurement Practices	Social Impact	ENEC
20		G5	202, 205, 206	Market Presence, Anti-Corruption and Anti-Competitive Behavior	Robust Governance	ENEC
21			201	Economic Performance	Robust Governance	ENEC
22	 	E4	302	Energy	Climate Action	ENEC
23	 			Addressing the grievances for Workforce and Contractors	Social Impact	ENEC and Contractors
24	-			Socio-Economic Compliance	Social Impact	ENEC
25	-		203	Indirect Economic Impact	Social Impact	ENEC
26	 	E6	303	Water and Effluents	Climate Action	ENEC

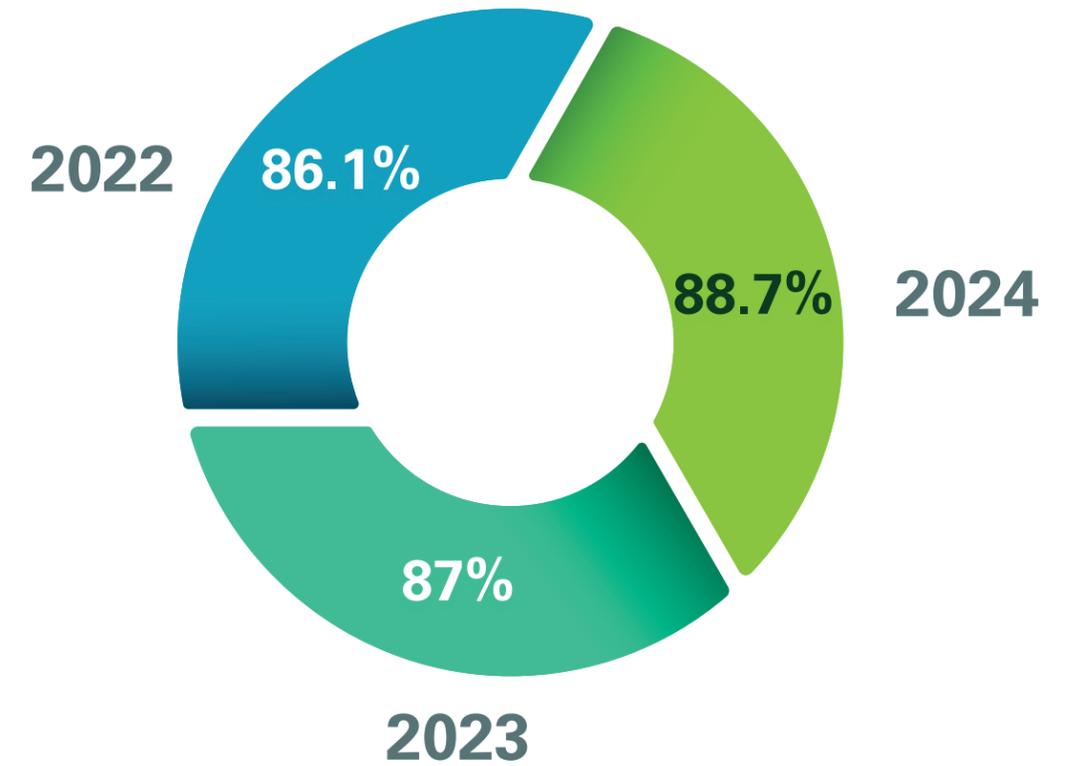
MATERIAL MATRIX



2.3. Sustainability Maturity

We use the Sustainability Maturity Assessment Tool (SMAT), implemented by the AD SG and led by the Environment Agency of Abu Dhabi (EAD), to evaluate our sustainability management approach and performance across the seven areas: management, owners, employees, suppliers, customers, community, and environment.

The results of the 2024 SMAT indicate that our sustainability program has consistently matured, with the maturity index increasing by 6.2% from 2021. With the introduction of ESG policy, there has been a considerable enhancement in our management approach towards sustainability. While the employee related policies and practices have further enhanced fostering employee wellbeing.



2.4. Sustainability Program and Initiatives 2024

DRIVING SUSTAINABLE CHANGE FROM WITHIN: ENEC'S 2024 INITIATIVES

In alignment with the UAE's national sustainability vision and its evolving environmental regulations, the ENEC took bold and proactive steps in 2024 to reduce its environmental footprint—by starting from within. Recognizing that lasting impact begins with awareness, ENEC empowered its employees through knowledge and behaviour-based initiatives that fostered a deeper connection to the environment.

A key focus area for the year was the elimination of single-use plastics, in line with the UAE's nationwide ban on single-use plastic bags and the broader push to curb plastic pollution. ENEC launched an internal sustainability program dedicated to phasing out single-use plastic from its operations. The initiative, in its first phase began with awareness sessions that educated employees about the environmental toll of single-use plastics and their long-term impact on ecosystems and climate.

This was followed by a targeted and well-received campaign to replace Polyethylene Terephthalate (PET) bottles with reusable alternatives. Personalized tumblers were distributed to employees, emphasizing that switching to reusable tumblers could reduce the carbon footprint from the use of PET bottles for water consumption by up to 80% annually. This clear, actionable insight inspired widespread adoption across the organization. The campaign, led by ENEC's environment team, garnered strong engagement and was further amplified by the presence and support of the Environment Agency – Abu Dhabi (EAD), endorsing the initiative's importance. Continuing its climate action commitment, ENEC also hosted a series of sustainability awareness sessions focused on energy and water conservation. These sessions shed light on global and local resource challenges, highlighting the UAE's vulnerability to overconsumption and the pressing need for efficient usage. Employees were encouraged to adopt practical, impactful measures in their daily routines – from optimizing workspace lighting and equipment use to reducing water waste in office facilities as well as daily life. The sessions underscored the vital role that both corporate policy and individual action play in driving environmental stewardship.



ANNUAL BEACH CLEAN UP

As a part of its commitment to environmental stewardship and community engagement, ENEC organized its annual beach clean-up in November 2024. The event saw enthusiastic participation from over 140 volunteers, including employees from ENEC and its various subcontractors. Together, the volunteers collected more than 939 kilograms of general waste and recyclables – primarily wood waste and green waste – from the shoreline near the Barakah Nuclear Energy Plant. This initiative demonstrated ENEC's dedication to environmental protection by collecting waste washed ashore surrounding Barakah, helping to keep the coastline clean and ensure the long-term sustainability of the natural areas surrounding the Barakah site

NUCLEAR LEADERSHIP

Ensuring the safety of nuclear operations remains our top priority while building a strong talent pipeline and demonstrating our ability to provide nuclear leadership on a global scale.





ENEC is committed to setting the benchmark for nuclear leadership, prioritizing the highest safety standards while fostering a skilled workforce to sustain the industry's future. By investing in talent development and operational excellence, ENEC ensures its ability to lead the global nuclear sector with innovation and responsibility

3.1 Nuclear Safety and Reliability

Safety - Our overriding priority

At ENEC, Safety is our top priority in everything we do. From design to daily operations, every step is guided by international best practices to meet and uphold the highest levels of global nuclear safety standards.

Nuclear Safety

ENEC has established robust processes and management systems for the Barakah Plant operations, rooted in the collective expertise and operational insights of the global nuclear energy organizations such as the IAEA, WANO, and INPO.

ENEC is committed to the core values set by FANR—safety, responsibility, competency, independence, and transparency. By strictly adhering to FANR regulations, we ensure full compliance across all aspects of nuclear operations, reinforcing our unwavering commitment to safety and excellence.



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 implemented 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 of 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.

NATIONAL STANDARDS	INTERNATIONAL STANDARDS
<ul style="list-style-type: none"> FANR-REG-01, Regulation for Leadership and Management for Safety in Nuclear Facilities FANR-REG-08, Regulation on Physical Protection of Nuclear Material and Nuclear Facilities and on Cyber Security 	<ul style="list-style-type: none"> IAEA Nuclear Security Series No.7, Nuclear Security Culture

Data Privacy and Digital Security

GRI 2016: 418

Cybersecurity is a cornerstone of ENEC's governance and operational structure by design. We adopt a risk-based, data-driven Multi- Lines of Defense model to manage cybersecurity risks, ensuring robust oversight across all internal and external stakeholders.

At ENEC and its subsidiaries, we are committed to embedding cybersecurity principles across both Information Technology and Operational Technology environments, at the core of our operations. This approach safeguards our critical information, systems, and infrastructure from evolving cyber threats, while enabling our digital acceleration program and supporting broader business objectives.

ENEC upholds the highest standards of Corporate Governance, Emphasizing Confidentiality, Integrity, and Accountability (CIA). We comply with UAE regulations and globally recognized standards and frameworks – including FANR regulations, UAE Information Assurance, the UAE Data Protection Law No. 45, and ISO 27001:2022 – ensuring our cybersecurity practices meet or exceed international benchmarks.

Beyond protecting our own operations and stakeholders, ENEC contributes to national resilience and the secure advancement of the UAE's energy sector through international collaboration and alignment with global nuclear security norms.



AI READY

ENEC is committed to responsibly managing generative Artificial Intelligence (AI) solutions and mitigating potential risks. We aim to balance the key attributes of a trustworthy AI system – across development, deployment, and usage – while leveraging the power of big data. This approach aligns with the UAE National Strategy for Artificial Intelligence 2031, advancing our journey from being AI-ready to becoming an AI leader



Emergency Preparedness

The Barakah Emergency Preparedness Program (EP), ensures that all programs, processes, and activities across commissioning and operations are developed, implemented, and executed in accordance with established procedures, prioritizing safety and efficiency at every stage.

Working with internal and external stakeholders, we developed a comprehensive Emergency Preparedness and Response program. This covers all aspects of nuclear emergency activities, emergency response organization, emergency equipment, training, and awareness.

PROGRAMS AND INITIATIVES

Our Emergency Preparedness and Response Program is a comprehensive framework developed in close collaboration with both internal and external stakeholders, covering all aspects of nuclear emergency management. It reflects our strong commitment to protecting the health and safety of employees, the public, and the environment in the event of a potential radiological incident. The program focuses on building and implementing functional roles and capabilities across the following key areas:

01 | EP Programs

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

02 | EP Drills, Exercises and Training

- Emergency Preparedness Training Program
- Emergency Preparedness Drills and Exercises Program

ENEC works closely with FANR, local stakeholders, the IAEA, and international experts to ensure its Emergency Preparedness and Response Program aligns with the highest global standards. To maintain its Operating License from FANR, ENEC must demonstrate the ability to respond swiftly and effectively to radiological emergencies at the Barakah Plant. Regular drills and exercises are conducted to test the readiness of the Emergency Response Organization.

The Emergency Management program includes development and periodic review of necessary Emergency Response related procedures and plans, Emergency Response awareness for all staff, specialized certified training for Fire Wardens and First Aiders, internal training for Chief Wardens, Emergency Coordinators and Security personnel, and drills and exercises of potential emergency events. Every quarter, Facility Management HSE perform assessments on the quality of conducted emergency evacuation drills. Assessments include evaluation of the emergency evacuation drills, lessons learnt and areas for further improvement.

Emergency response training takes the main part of the Emergency Management program, and all trainings are conducted as per the annual training plan to ensure all main responders are competent and qualified in their roles. Twenty five (25) emergency response trainings were conducted in 2024 in HQ with a total of 252 people attended the training.

KEY PERFORMANCE INDICATORS AND HIGHLIGHTS

Key Performance Indicators (KPIs) are actively monitored to ensure the Emergency Preparedness and Response Program remains effective and aligned with the highest standards. Additionally, the onsite emergency plan is developed in accordance with 16 international planning standards, ensuring the safety of personnel, the protection of infrastructure, and the well-being of the public.

Following are the KPI's that are measured:

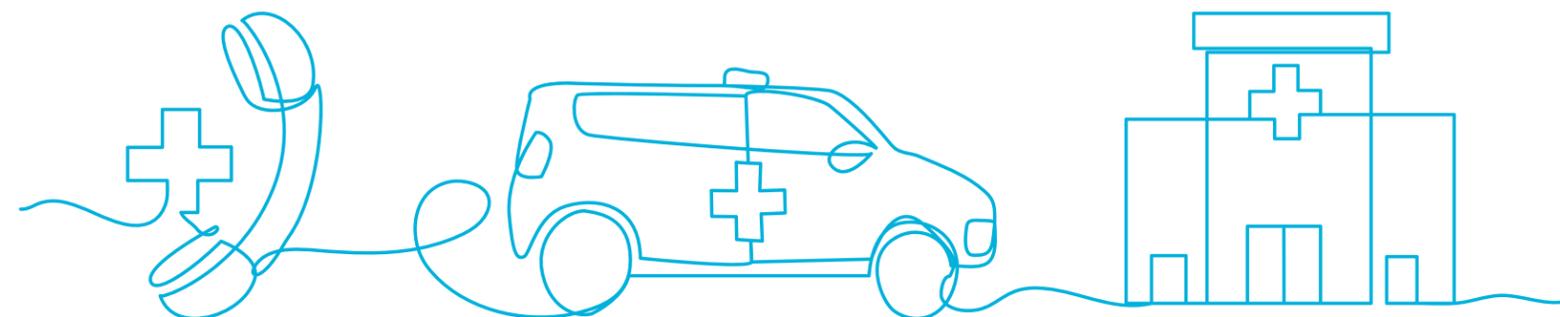
- Drill/Exercise Performance (DEP)
- Emergency Response Organization (ERO) Vacancy Open for 90 Days or more Indicator
- Primary Offsite Notification Systems
- Equipment Important To Emergency Response (EITER) Category (A)
- Emergency Preparedness Health Index

Following are the program highlights from 2024 :

- 102 emergency procedure updates made in 2024 based on feedback from drills, exercises, audits, and inspections
- 400 training sessions conducted, including tabletop and Severe Accident Management Guideline (SAMG) sessions
- Four onsite emergency drills conducted; Three included offsite stakeholders
- Six offsite drills and Two site visits carried out in 2024

The EP training program aims to qualify ERO personnel through initial, continuing, and specialized DEP-focused sessions along with monthly online exercises to maintain and enhance emergency response proficiency. 24 DEP sessions were conducted in 2024.

Emergency Preparedness received an award from the Emergency Crisis and Disaster Management Center Abu Dhabi (ADCDC) for classifying the Emergency Operation Facility as class A.



Nuclear Waste Management

Nuclear energy plants generate various types of radioactive waste, each requiring safe handling, containment, and isolation based on its characteristics. The UAE Peaceful Nuclear Energy Program adheres to international best practices in radioactive waste management to ensure public safety and environmental protection. In line with this, ENEC developed the Barakah Nuclear Energy Plant Integrated Waste Strategy, which provides a comprehensive approach to managing all radioactive waste generated at Barakah safely and securely.

RADIOACTIVE WASTE MANAGEMENT PROGRAM

ENEC approaches radioactive waste management using the enshrined principles of the waste management hierarchy (figure below). This approach allows ENEC to minimize, mitigate, and avoid the generation of radioactive waste during the day-to-day operations and refuelling outages at the Barakah Plant.

MANAGING NUCLEAR WASTE

Low-Level Waste (LLW) remains the primary type of radioactive waste from routine operations and refuelling, including Personal Protective Equipment (PPE), tools, filters, and resins. From initial criticality until the end of 2024, 103.5 metric tons were generated, with 58.7 metric tons produced in 2024 as all four units became operational. Currently, this radioactive waste is packed in special containers and stored safely and securely in a dedicated radioactive waste storage building at Barakah Nuclear Energy Plant. A radioactive waste management facility is also being sited and will be developed to further process and dispose of radioactive wastes in a safe and responsible manner.

At the Barakah Plant, about one-third of reactor fuel is replaced every 12–18 months. Spent fuel is first cooled for 3-5 years in on-site pools designed to hold up to 20 years' worth of spent fuel, before being transferred to safe interim storage, e.g dry cask storage – all in line with international best practices and IAEA guidelines.

A Radioactive Waste Minimization procedure was developed in 2024 to drive radioactive waste minimization practices throughout the organization.

There were no reportable limits exceeded during the reporting period (2024) as required in Section 6.6.1 of the Off-Site Dose Calculation Manual (ODCM).



3.2. Health and Safety

GRI 2021: 2-23,2-24,2-25

The Health & Safety (H&S) department is responsible for developing and implementing H&S Programs for ENEC and its subsidiaries. H&S prioritizes Occupational Health and Safety (OHS) at the ENEC facilities including Headquarters, Emergency Response Center, and the Barakah Plant facilities by:

- Developing and updating H&S policies, procedures, codes of practices, OHS risk management activities, audits, and compliance measures for construction, operation and maintenance.
- Ensuring the Occupational H&S Management System (OHSMS) complies with applicable laws, regulations, and policies while monitoring legal changes to recommend updates.
- Enhancing safety communications through training and awareness programs and providing guidance to employees, contractors, managers, directors, and senior leadership across departments to foster a strong safety culture across the organization.

In 2024, the Crisis Management team responsible for non-nuclear incidents was integrated into the H&S function, enhancing incident management process, particularly when situations escalate to the level requiring crisis management plan activation.

Occupational Health & Safety Management System (OHSMS)

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

The H&S has established a comprehensive Occupational OHSMS to integrate all aspects of health and safety. Our OHSMS is built on key pillars, including policies, procedures, and codes of practice that ensure a systematic approach to occupational health and safety.

Continuously evolving since 2010, OHSMS aligns with regulatory requirements, international standards, and emerging risks and opportunities. Certified to ISO 45001:2018 and approved by the Abu Dhabi Centre for Occupational Health and Safety System (ADOSH), our OHSMS is managed by dedicated teams at various functional H&S levels of the organization – including corporate, projects, plant, and facility support services – to ensure effective oversight across all operational areas.



Key factors include:

-  OHS Legal Compliance
-  OHS Communication & Consultation
-  OHS Risk Management
-  Contractor HSE Management
-  OHS Performance Management
-  OHS Incident Management
-  OHS Training & Competency Programs
-  Emergency Management Programs
-  OHS Review & Inspection

Health and Safety Programs and Initiatives

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

OCCUPATIONAL HEALTH RISK ASSESSMENT (OHRA) STUDY

In 2024, ENEC Operations conducted an Occupational Health Risk Assessment (OHRA) study with an independent external consultant to evaluate health risks for all job roles, including contractors, involved in Barakah Nuclear Energy Plant operations and maintenance. The study assessed exposure to physical, chemical, radiation, biological, ergonomic, and psychosocial hazards, in terms of exposure time, frequency, and potential health effects. It helped establish a comprehensive health risk profile for the nuclear energy plant workforce and identified necessary periodic medical examination requirements. The findings will be used to enhance the health and well-being of employees and contractors at Barakah.

SAFETY RELATED CAMPAIGNS CONDUCTED IN 2024

The Health and Safety Roadshow was held at ENEC Headquarters, with an aim to enhance awareness and ensure the correct use and maintenance of PPE items for improved workplace safety. Industry specialists, consultants, and vendors participated, showcasing their expertise in key areas such as health screening, healthy diets, safety training using Virtual Reality (VR), and demonstrations on the proper use and effectiveness of basic and specialized Personal Protective Equipment (PPE).

HEALTH RELATED CAMPAIGNS CONDUCTED IN 2024

Are You Ready Campaign – Launched in 2024, this campaign focused on situational awareness and common unsafe behaviours in both daily activities, such as driving and using stairs, and complex power plant tasks. Delivered through videos and targeted messages through multiple ENEC digital platforms, the campaign leveraged the effectiveness as a result of short and engaging video content. The video topics were emphasizing safety at pedestrian crossings, distracted walking, handrail use, safe driving, and PPE adherence.

Heat Stress Awareness – Beyond compliance with the Summer Mid-day Break regulation, ENEC implemented various field and virtual awareness initiatives to mitigate heat stress impacts. The campaign engaged key stakeholders, including onsite medical service providers and health insurance partners to enhance awareness and support employee well-being.

The health awareness campaigns conducted by ENEC included Diabetes Awareness, Breast Cancer Awareness, and a Flu Vaccination Drive for employees and their families.



SAFETY HUB

Counting on the success of the initiative of 'The Safety Hub' in 2023, ENEC extended the concept to various locations inside Barakah to bring it closer to the people. As a result, the new Safety Hub was created inside the Operation & Maintenance building. The concept of the Safety Hub had been extended from the industrial safety to electrical safety, radiation safety, fire protection, chemistry, and more themes. It was proven effective to reinforce a safety-first mindset where employees and contractors were able to learn more about the consequences of unsafe actions while being reminded about the safe system of work.

HEALTH AND SAFETY COMMUNICATIONS (2024 AWARENESS PLAN)



Key H&S Highlights

- | | | |
|---|---|--|
| 1 Total number of health and safety inspections – 2,186 | 2 Total number of health safety audits (internal, external & regulatory) - 11 | 3 Total employees and contractors trained in health and safety topics – 8,380 |
| 4 Total number of observations – 3,380 | 5 Total number of health and safety training hours – 19,981 | 6 Total medical screening and surveillance conducted for employees & contractors – 2,692 |

HEALTH & SAFETY GRIEVANCES

GRI 2018: 403-2, GRI 2021: 2-26

The Action Request (AR) Program enables employees to report safety concerns and near-miss incidents, ensuring accountability for corrective actions.

The Employee Grievance Committee resolves employee concerns, while contractors and subcontractors use the Safety Observation Program to report well-being issues. The provision is available for workers to submit reports via drop boxes provided across the Barakah Plant. In 2024, no H&S grievances or complaints about well-being were recorded.

Health and Safety Performance

The annual organizational health and safety performance was enhanced compared to the year 2023 through review of risk assessments, Job Hazard Analysis (JHAs), addressing contractor performance management requirements at early stages such as during pre-qualifications and project / contract agreement stage.

Additionally, H&S trainings, contractor H&S performance management during execution stage, compliance with regulatory reporting obligations and analysis of findings generating performance trends ensured timely interventions. All the initiatives towards leading indicators were completed as per the plan.

Total Recordable Case Frequency Rate (TRCFR) performance target for ENEC and its subsidiaries, including overall employees and contractors was achieved by maintaining the TRCFR performance below 0.8. The risk assessments were reviewed to ensure the controls and actions address the causes of the incidents. The health and safety alerts capturing lessons were published to increase the awareness among all employees to prevent recurrence.

HEAT STRESS

Heat stress is a recognized occupational health concern in the region; hence the mitigation measures adhere to UAE guidelines on occupational health & safety. The continually improving maturity of the heat stress management control and mitigation measures, there were no heat stress related incidents reported in 2024 underscoring our commitment to safeguarding the wellbeing of the workforce.

Heat Stress Incidents (Employees)		Heat Stress Incidents (Contractors/Sub-Contractors)	
2022	0	2022	0
2023	0	2023	1
2024	0	2024	0

Scope: ENEC, ENEC Operations, ENEC Commercial, Contractors

FOOD SAFETY AND INDUSTRIAL HYGIENE

GRI 2018: 403-7

The H&S Team, through Facility Support Services Team, conducts monitoring of food and catering services to ensure adherence to food safety and catering standards at the Barakah facilities.

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 health monitoring equipment, and monitoring stress factors affecting industrial hygiene. Additionally, hygiene assessments, including air quality surveys, noise control zones, and hazardous substance management are conducted.

HEALTH SCREENING & SURVEILLANCE

GRI 2018: 403-10

In accordance with ADOSH and FANR regulations, all employees must undergo health screenings and medical surveillance to evaluate occupational health and ensure compliance with safety standards. The frequency of these examinations varies by job category and associated risks to ensure thorough monitoring of employee well-being. There were zero incidents of any work-related ill health incidents among employees or contractors in 2024.

EMPLOYEE OCCUPATIONAL SAFETY

GRI 2018: 403-9

In 2024, there were zero recordable incidents involving the employees contributing significant improvement in the organization's Lost Time Injury Frequency Rate (LTIFR), Total Recordable Case Frequency Rate (TRCFR) for employees.

Employee Occupational Safety

	2022	2023	2024
Number of employee hours worked	6,597,590	5,701,192	5,149,150
Fatality (employees)	0	1	0
Total Recordable Cases	10	11	0
Lost Time Injury Frequency Rate (LTIFR; employees)	0	0.35	0
Total Recordable Case Frequency Rate (TRCFR; employees)	1.52	1.93	0

Scope: ENEC, ENEC Operations, ENEC Commercial

LTIFR and TRCFR are calculated per million man-hours



CONTRACTOR OCCUPATIONAL SAFETY

GRI 2018: 403-9

In 2024, one lost time injury (LTI) was reported, the incident was investigated and the corrective action plan was approved by the regulator. Additionally, 11 medical treatment cases (MTCs) and one restricted work case (RWC) were recorded, reflecting a 35% decrease in recordable cases. This improvement is attributed to ENEC's ongoing efforts in monitoring, assessing, and managing contractor H&S performance.

Contractor Occupational Safety

	2022	2023	2024
Contractor and subcontractor hours delivered (millions)	20.78	17.99	15.14
Fatality (contractors and subcontractors)	0	0	0
Total Recordable Cases	16	20	13
Lost Time Injury Frequency Rate (LTIFR; contractors and subcontractors)	0.05	0.00	0.06
Total Recordable Case Frequency Rate (TRCFR; contractors and subcontractors)	0.77	1.11	0.85

Scope: Contractors

LTIFR and TRCFR are calculated per million man-hours

THE BARAKAH PLANT PERFORMANCE FOR WANO PERFORMANCE INDICATORS

Overall performance was comparable to the best industry performance with no incidents exceeding WANO reporting criteria for staff.

The Barakah Plant WANO KPIs performance for the year 2024 is stated below.

Total Industrial Safety Accident Rate (TISA2)
0.02

Industrial Safety Accident Rate (ISA2)
0

Contractor Industrial Safety Accident Rate (CISA)
0.05

3.3. Nuclear Expertise & Talent Development

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

The nuclear energy industry operates under some of the world's most rigorous quality, technical, and risk management standards. In line with this, we are committed to knowledge sharing and active engagement with local and international stakeholders. As part of supporting the UAE's shift to a knowledge-based economy, our focus is on empowering employees, suppliers, and future talent with the skills needed to drive sustainable growth in our business and the broader sector.

Systematic Approach to Training

We have adopted a Systematic Approach to Training (SAT) throughout ENEC, the Barakah Plant, and related corporate training programs. This strategy also includes overseeing contractor-provided training to ensure it meets all relevant requirements. All training programs follow the SAT methodology to identify training needs, as required by FANR.

The implementation, compliance, and effectiveness of these training programs are regularly evaluated both internally and externally by WANO and FANR to support continuous improvement. The Nuclear Training function, we design, develop, implement, evaluate, and oversee training and qualification programs for Barakah Plant staff.

The efforts focus on creating and executing general employee training initiatives, as well as initial and ongoing training programs for Barakah Plant Operations and Technical staff. Additionally, the Nuclear Training function operate Simulator-training facilities to further enhance our training capabilities.

	2022	2023	2024
Total Number of internal and external training hours delivered	805,962	537,661.9	581,090
Average hours of internal and external training per employee	264.25	201.10	218.45
Internal Training Hours Delivered	764,114	537,661.9	529,415
UAE National Employee Internal Training Hours	346,613	267,786.75	245,475
International Employee Internal Training Hours	417,501	269,875.15	283,940
External Training Hours Delivered	41,848	63,232	51,675
UAE National Employee External Training Hours	29,024	46,448	38,012
International Employee External Training Hours	12,824	16,784	13,663
Number of e-learning and e-reads available	1,162	1,206	938
Number of e-learning and e-reads completed	108,902	107,976	76,079

Scope: ENEC, ENEC Operations, ENEC Commercial

At this stage of the program, all four units are now operating and the initial startup training activities have moved into steady state operation of the plant. In addition, the organization focus in COVID time was heavily skewed on self-paced online learning, however, we have now shifted our focus to gaining proficiency through on-the job development supplementing the structured training in the classroom. As an example, the pipeline programs are 2 years in length for full time on the job development and skills enhancement, therefore, the number of training hours does not reflect the reality of the continuous learning environment that is established across the organization.

TRAINING AND DEVELOPMENT PROGRAMS

Our programs are robust and benefit from extended governance through several committees including the Senior Training Council, Technical Advisory Committee, Curriculum Review Committee, Leadership Development Committee.

ENEC's training programs are aligned with the guidance provided by the World Association of Nuclear Operators (WANO) and comply with the requirements of the Federal Authority for Nuclear Regulation (FANR). In addition, ENEC partners with various institutions including National Qualification Authority (NQA), INSEAD, WHARTON, London Business School.

These initiatives reflect our dedication to nurturing a resilient workforce that drives innovation while aligning with global sustainability goals.



TECHNICAL DEVELOPMENT PROGRAMS

General Training: The purpose of this training is to ensure that Barakah employees meet all regulatory requirements of FSAR Chapter 13.2, Abu Dhabi Occupational Safety and Health Center (OSHAD), and training requirements in Barakah plant's procedures for station staff, contract workers, and visitors requiring General Employee Training.

(Total program completion rate of 8,094 hrs. for 1090 employees)

Foundation Training: Training designed to develop entry-level UAE National students, trainees, and employees, supporting their transition from education to the workplace and preparing them for careers as nuclear professionals. Programs include the APR1400 Course, Executive Simulator Course, Management Certification Course, Accelerated SRO Instructor Program (ASIP), and Instructor Initial & Continuing Training Qualification.

(1,090 employees completed foundational training)

Operations Training: Certified Operator Initial Training (COIT) / License Training ensures future Licensed/Certified Operators complete the Initial Curricula, including Must Perform Tasks and Main Control Room Operator Job Qualification Cards, prior to submitting regulatory applications for Reactor Operator (RO) and Senior Reactor Operator (SRO) licenses.

(The program spans 91 weeks, covering 2,912 total training hours for 56 operators.)

Local Operator Initial Training (LOIT): This program trains local (non-licensed) operators on all requirements needed for their initial qualifications to work at the plant. It spans 60 weeks, with 1,920 training hours for 237 trainees.

Certified Operator Continuing Training (COCT): This program applies to all certified Reactor Operators (ROs) and Senior Reactor Operators (SROs), including both active and inactive certifications. The Certified Operator Continuing Training (COCT) Program includes simulator sessions, classroom presentations, case studies, evaluations, and other interactive instructional activities. The program runs six weeks per crew annually, covering 1,200 total hours for 182 Main Control Room operators.

Local Operator Continuing Training (LOCT): This program applies to all non-certified Local Operators (LOs). The Local Operator Continuing Training (LOCT) Program includes classroom presentations, case studies, in-plant training, and combined LOCT/COCT simulator scenarios using full-scope MCR simulators connected to a 3D virtual plant. It also includes other interactive instructional and evaluation sessions. The program runs 6 weeks per crew annually, with 1,200 training hours for 162 local operators.

Chemistry Training: Chemistry (CY) Initial Training outlines the training program for Chemistry personnel at the Barakah Nuclear Power Plant. It defines the training requirements to ensure compliance with the Federal Authority for Nuclear Regulation (FANR) standards, as specified in FANR-REG-16, Article (9) on Qualification and Training of Personnel. The program duration is 28 weeks with a total of 896 training hours.

Chemistry (CY) Initial Training: The Chemistry (CY) Initial Training Program at the Barakah Nuclear Power Plant outlines the training requirements for chemistry personnel and ensures compliance with the Federal Authority for Nuclear Regulation (FANR) requirements, as specified in FANR-REG-16, Operational Safety including Commissioning, Article (9) – Qualification and Training of Personnel. The program spans 28 weeks, with 896 training hours.

Chemistry (CY) Continuing Training: Chemistry Continuing Training maintains the knowledge and skills required for personnel to perform their duties independently in a safe, reliable, and efficient manner. Training needs are identified systematically and through ongoing program evaluations. The total employee population for initial and continuing Chemistry training is 65.

Radiation Protection Training: Radiation Protection (RP) Initial Training provides RP personnel with the knowledge and skills needed to perform their duties independently, safely, reliably, and efficiently. It also supports RP management in communicating technical requirements and helps personnel meet standards for safety, performance, professionalism, and plant reliability. The program spans 36 weeks, with 1,056 training hours.

Radiation Protection (RP) Continuing Training: RP Continuing Training maintains the knowledge and skills necessary to perform assigned duties independently in a safe, reliable, and efficient manner. Continuing Training needs are identified both systematically and as the result of ongoing training program evaluation. (Total employee population of initial and continuing radiation training is 111 employees)



Engineering Training:

Engineering Initial Training: This Curricula Guide contains all the items that are needed to qualify engineering personnel. (20 weeks, 640 Hrs).

Engineering Continuing Training: Engineering Continuing training in technical and administrative topics maintains and improves engineering personnel work performance and develops a broader scope and depth of position-specific knowledge and skills. In addition, continuing training keeps engineering personnel current with respect to plant modifications, procedure changes, operating experience, and technical advances associated with assigned position functions. (Total employee population of initial and continuing engineering training is 447 engineers)

Maintenance Training:

Maintenance Initial Training: Initial Training provides Maintenance personnel with knowledge and skills necessary to perform assigned duties independently in a safe, reliable, and efficient manner. (53 weeks, total hours= 1,969 hrs)

Maintenance Continuing Training: The goal of Continuing Training is to maintain and improve the performance of permanent employees. Supplemental Maintenance personnel who work at the station for extended periods should receive the same Continuing Training provided to utility personnel, commensurate with their assigned duties. (Total employee population of initial and continuing maintenance training is 907 trainees)



Total employee population of initial and continuing engineering training: 447 engineers



SOFT SKILLS TRAINING

On boarding Induction Training – A three day internal orientation training for all new joiners. (Total employee population of 281, total hours= 4,496 hrs)

Crucial Conversation – A 2-day external training on managing difficult conversations. (54 employees completed in 2024, total number of hours= 64 hrs)

Soft Skill Training – A 4-hour face to face internal training provided to employees on topics like Business Intelligence, Effective Communication, Nuclear Professionalism, Negotiation Skills, Getting and Giving Effective Feedback and Managing Meetings. (103 employees completed, total hours= 30 hrs)

External Training – Multiple external training courses on technical, leadership, and soft skills for employees on topics like artificial intelligence, security, data analysis, audit and compliance, fire handling, warehouse management, radioactive material, lifting and rigging, finance, procurement, project management, human resources etc. (740 employees completed, total hours= 51,675 hrs)

Skill Enhancement and Knowledge-Sharing Initiatives – In 2024, targeted knowledge-sharing sessions and workshops were held to strengthen key competencies such as data analytics, project management, and nuclear operations. Activities included demonstrations of Main Control Room (MCR) operations and radiation safety practices. Additionally, knowledge transfer was facilitated through external training, where experienced employees shared insights and skills acquired from their learning experiences.

RECOGNITIONS AND CERTIFICATIONS

We have also been very privileged to earn the following:

**ISO CERTIFICATION
(Knowledge Management)**

**Exemplary performance in Talent
Management by the WANO**

Diploma of Nuclear Technology (DNT) Program

The HDNT program was the long-term workforce initiative for foundational technical roles at the Barakah Plant. In 2023, it was replaced by the Diploma in Nuclear Technology (DNT), accredited by the Ministry of Education through the National Qualifications Center as a Recognized Training Centre.

The DNT is a two-year training program for high school graduates, delivered internally by the organization's nuclear instructors and the target discipline area. Trainees gain knowledge and understanding of science and engineering fundamentals, nuclear power plant systems and processes, and undertake practical workplace training to meet the requirements of a Local Operator (One watch-station out of four) or Maintenance Technician.

Trainees receive a monthly stipend during training, and upon successful completion of the DNT, they transition to positions as Local Operators or Technicians. The first cohort of 20 trainees began in 2023, all aiming for positions as Local Operators.

We collaborate closely with, the National Military Services authority, ACTVET and other key stakeholders to attract motivated young talent to the DNT program.



3.4. Stakeholder Engagement

GRI 2021: 2-29

We understand the importance of local and international stakeholders and their role in helping us evolve as a business in an ever-changing world. As ENEC is entering a new era of growth, marked by continuous engagement with existing stakeholders while actively exploring new entrants into the nuclear market and potential collaborations is becoming more important. Through strategic planning and execution of engagements, events, and conferences, ENEC aims to strengthen partnerships, expand its reach, and drive the future of nuclear energy.

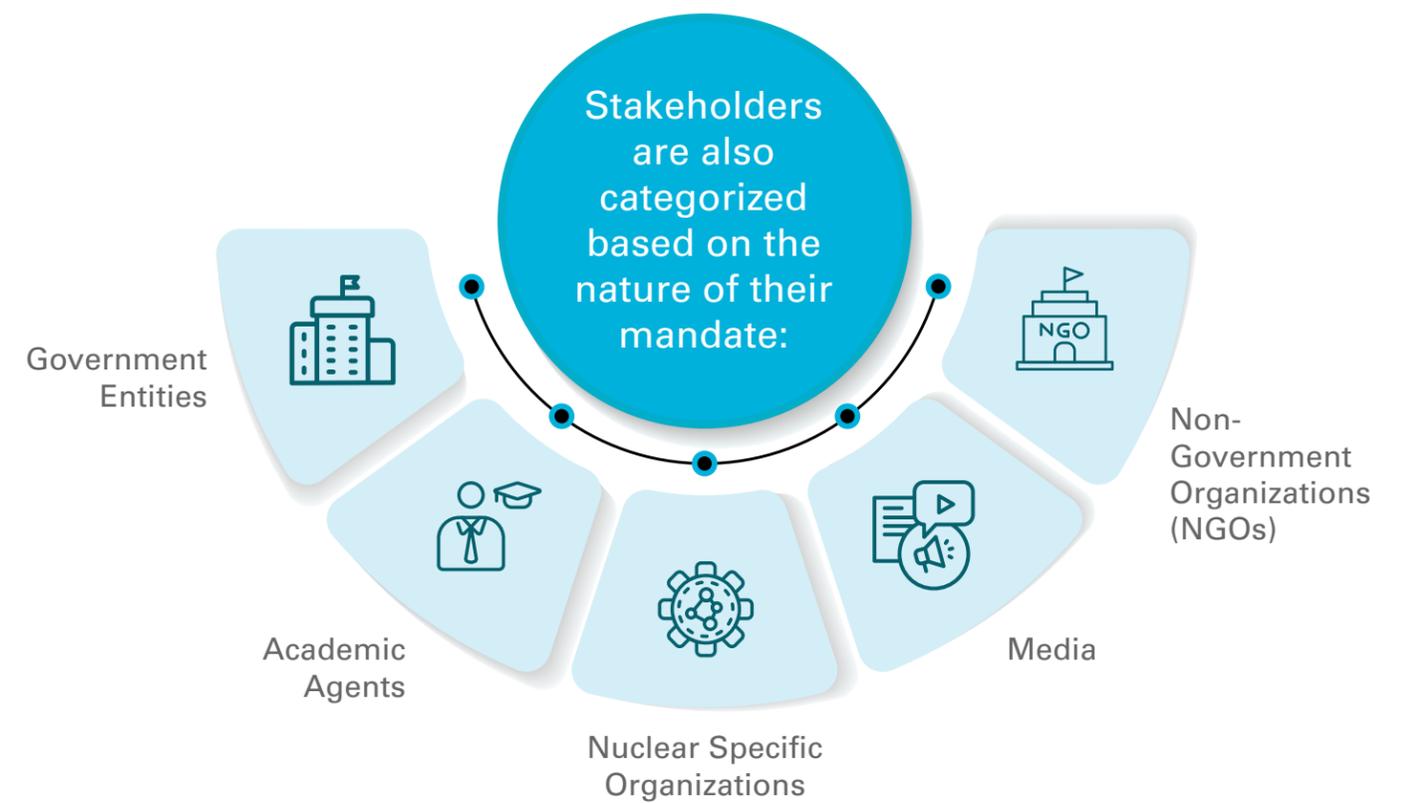
To keep them informed of our economic, environmental, social, and governance issues, we engage with stakeholders and listen to their feedback on what's important for our business. In 2024, we conducted several events, surveys, meetings, and focus groups to engage with our stakeholders directly. This 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.



Stakeholder Mapping

The stakeholders are classified into three Tiers based on the significance of their involvement with ENEC as described below:

<p>TIER 1 (T-1) -</p> <p>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</p>	<p>TIER 2 (T-2) -</p> <p>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</p>	<p>TIER 3 (T-3) -</p> <p>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</p>
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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

<p>Increase the executive team's awareness regarding key updates, issues, and support interactions with the strategic external stakeholders to enable effective decision-making</p>	<p>Ensure smooth coordination between ENEC and the stakeholders</p>	<p>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</p>
<p>Align ENEC's plans and staff in engagement and communication with stakeholders</p>		

Outreach Program

The Stakeholder Relations team manages outreach sessions for students, the public, and government and private entities 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



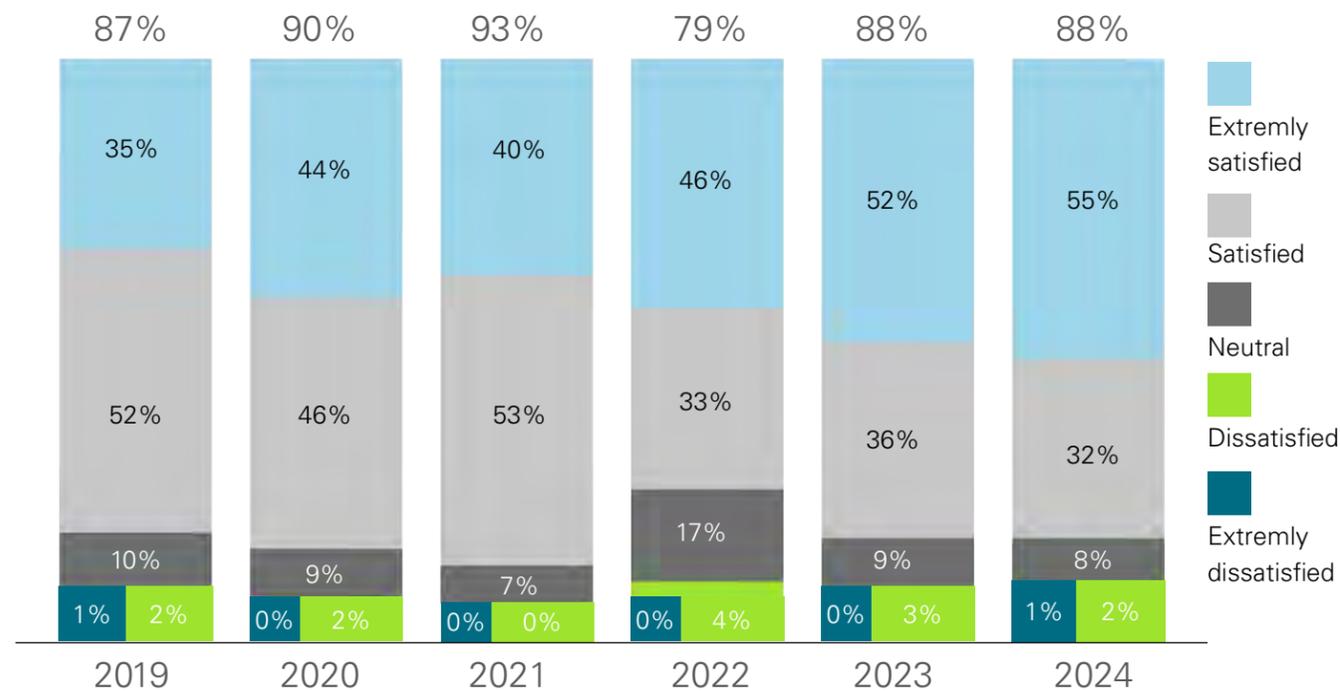
Satisfaction Survey:
Assessing the efficacy of information during the sessions through the survey

In 2024, over 76 successful outreach sessions were conducted for students and stakeholders, with more than 3,000 attendees. Impressively, the overall satisfaction rate was 93%, which reflects the effectiveness and impact of these engagements



STAKEHOLDER SATISFACTION SURVEY

As part of our strategic commitment to fostering strong relationships with external stakeholders, our Stakeholder Relations team conducted an annual survey to assess their experience with us. This survey serves as a key tool for measuring stakeholder satisfaction and identifying specific areas for improvement, ensuring we continuously enhance our engagement and collaboration. The latest results indicate a stable overall external stakeholder satisfaction rate, maintaining 88% in both 2023 and 2024.



PUBLIC OPINION POLL

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



Favourability towards nuclear energy is 82% in 2024



Awareness of nuclear energy as an electricity source increased to 59%, marking a notable 7% rise since last year, the most significant year-on-year increase recorded



Perception that nuclear benefits outweigh risks remains strong at 87%, showing stability in public confidence



Support for nuclear energy's role in achieving Net Zero by 2050 rose by 9%, reflecting increased recognition of its contribution to decarbonization

3.5. Research & Development

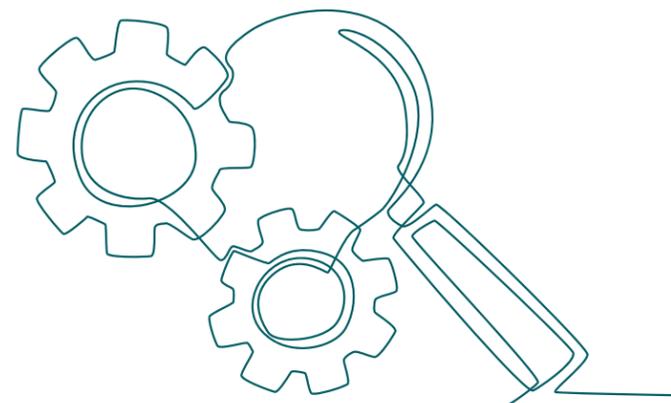
ENEC's approach to research and development is anchored in a bold vision—to position the UAE as a regional and global leader in peaceful nuclear research.



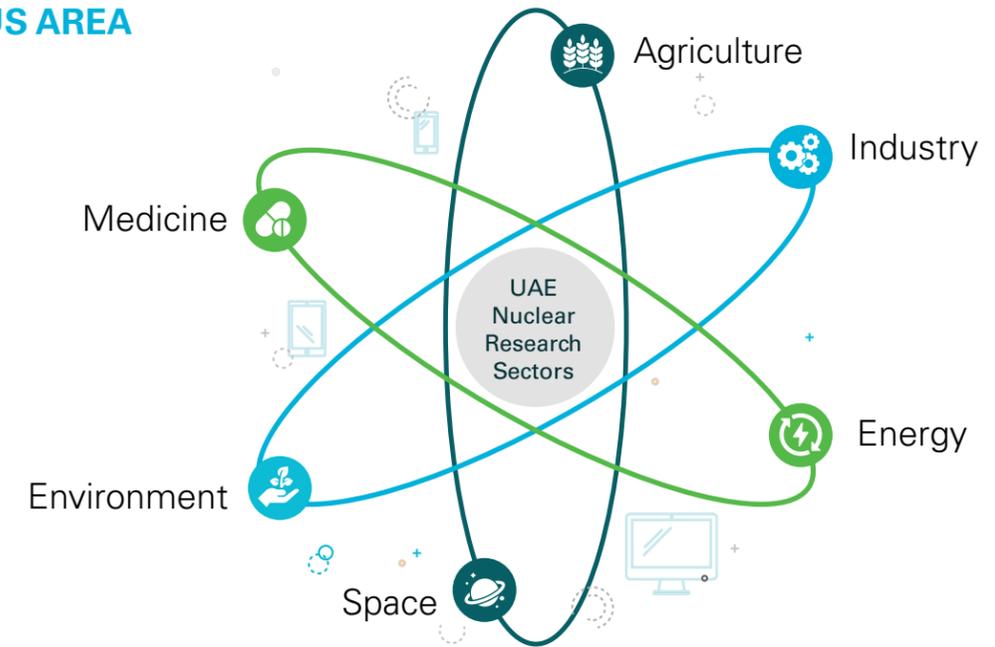
With a mission focused on enhancing nuclear sustainability, building human capital, and contributing to the nation's clean energy and knowledge economy goals, ENEC is actively shaping the future of the sector.



The organization's strategic pillars prioritize Barakah, building an R&D culture, fostering growth opportunities, engaging with research institutes, collaborating with stakeholders, and advocating for the R&D program. Through these pillars and objectives, the organization is committed to advancing innovation and sustainability in the nuclear sector.



KEY FOCUS AREA



Innovation for a Sustainable Nuclear Future

At ENEC, sustainability and safety go hand in hand with innovation. Through pioneering research and advanced technologies, we are strengthening environmental stewardship around the Barakah Nuclear Energy Plant.

Our integrated marine environment monitoring – using satellites, robotics, and surface vehicles – helps safeguard local ecosystems. Emergency readiness is enhanced through cutting-edge forecasting systems that trace potential radioactive releases, while eco-friendly biofouling solutions ensure the reliability and efficiency of our seawater-cooled systems. Advancements in HDPE pipe welding techniques further improve infrastructure integrity across our operations. These initiatives, alongside our participation in strategic consortiums, reflect ENEC's unwavering commitment to sustainable development, clean energy, and continuous improvement.

R&D Collaborations



The Emirates Nuclear Technology Center (ENTC) at Khalifa University – established in partnership with ENEC and the Federal Authority for Nuclear Regulation (FANR) – serves as a cornerstone for advancing the UAE Peaceful Nuclear Energy Program. Positioned at the forefront of nuclear research, ENTC focuses on critical areas including nuclear safety, materials and chemistry, radiation safety, and advanced technologies. By bridging academic excellence with industry needs, ENTC plays a vital role in building national capabilities, driving innovation, and supporting the long-term sustainability of the UAE's nuclear sector.

ENEC in collaboration with Khalifa University developed an innovative approach to provide a less energy intensive and more environmental friendly solution for treating wastewater.



In November 2024, ENEC and ADNOC signed a Strategic Collaboration Agreement to explore integrating advanced nuclear technologies – such as Small Modular Reactors (SMRs) – into ADNOC's operations, aiming to enhance energy efficiency and support the UAE's Energy Strategy 2050 through reduced carbon emissions and a more diversified energy mix.

In an attempt to set new standards in infrastructure safety and inspection, ENEC collaborated with a start-up company to leverage unmanned aerial systems (UAS) technology for efficient, accurate and comprehensive inspection.

ADVANCE PROGRAM

Reinforcing the commitment towards accelerating the global clean energy transition and harnessing the latest advancements in nuclear energy technologies, ADVANCE program launched by ENEC in 2023 made significant progress with the development of the ENEC SMR roadmap for UAE. The roadmap highlights the significant progress in Small Modular Reactor (SMR) technologies and their critical role in supporting the nation's path to achieving Net Zero emissions by 2050 along with exploring the diverse applications and value of SMRs and Advanced Reactors (ARs) across various sectors.

Net-Zero Emissions 2050



KEY HIGHLIGHTS



Strategic Collaboration with ADNOC:

ENEC signed a Strategic Collaboration Agreement (SCA) with ADNOC to explore the feasibility of deploying Small Modular Reactors (SMRs) and Advanced Reactor (AR) technologies in oil and gas operations



Sector Energy Demand Analysis:

As part of the collaboration, ENEC conducted a comprehensive market analysis to assess energy demands in the oil and gas sector and evaluate the potential of SMR/AR technologies to support decarbonization efforts



Thought Leadership sustainable water and energy solutions:

ENEC submitted and presented a paper titled "Desalination Powered by Advanced Nuclear Reactors" at the International Desalination and Reuse Association (IDRA) conference, contributing to global discussions on sustainable water and energy solutions

ENEC signed a Strategic Collaboration Agreement (SCA) with ADNOC to jointly study the feasibility of deploying SMR/AR technologies in oil and gas operations. As part of this effort, ENEC also conducted a market analysis to better understand the sector's energy demands and evaluate how Small Modular and Advanced Reactors can complement and decarbonize oil and gas operations.

Additionally, ENEC submitted a paper titled "Desalination Powered by Advanced Nuclear Reactors" and presented it during the International Desalination and Reuse Association (IDRA) conference, contributing to global dialogue on sustainable water and energy solutions.



CLIMATE ACTION



4. Climate Action



At ENEC, climate action is not just a responsibility – it is a driving force behind our mission.

By safeguarding our natural resources – energy, water, air, and biodiversity — and minimizing emissions and waste, we champion a path that ensures both environmental resilience and human prosperity. Nuclear energy’s unique capability to produce large-scale, low-carbon power makes it a cornerstone of the UAE’s Net Zero ambitions, positioning Barakah as a critical asset in reducing emissions and enabling sustainable economic growth.

4.1 Environment Management Approach

GRI 2021: 2-27, 2-25

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

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 audit findings indicate that the Barakah Plant complies with the requirements of the EAD operational environmental permit requirements and the OEMP. No major non-compliance or non-conformity were recorded during the 18th Third Party CEMP Implementation Audit and 4th Third Party OEMP Implementation Audit, covering the period from January 2024 to December 2024.



Environment and Sustainability Charter, co-signed with the Prime Contractor, is a pledge that signifies 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.

In 2024, we upheld our commitment to environmental responsibility by maintaining a flawless record – zero significant incidents – and achieving full compliance with all environmental legislation and permit conditions. This accomplishment reflects our dedication to sustainability and regulatory excellence.



ENEC achieved successful recertification of its **ISO 14001:2015 Environmental Management System**

ENVIRONMENT MANAGEMENT SYSTEM (EMS)

GRI 2021: 2-23, 2-24

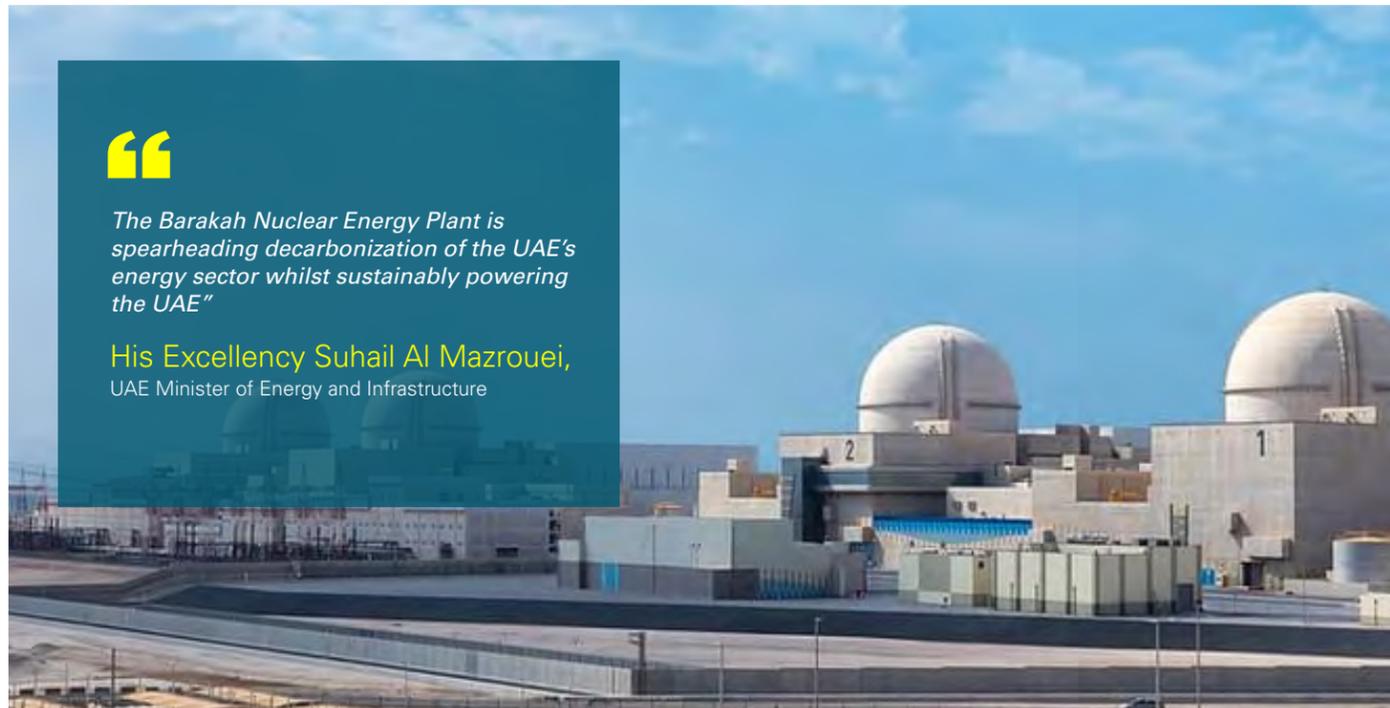
We prioritize the implementation of a robust Environment Management program. This commitment is reinforced through a meticulously designed Environmental Management System (EMS) that aligns with both local and international standards. By establishing, implementing, and supervising this system, we ensure rigorous environmental oversight, continuous improvement, and adherence to best practices in sustainability and compliance.

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 Program
- Incident and Emergency Response Programs



4.2 Decarbonization



The Barakah Nuclear Energy Plant is spearheading decarbonization of the UAE's energy sector whilst sustainably powering the UAE"

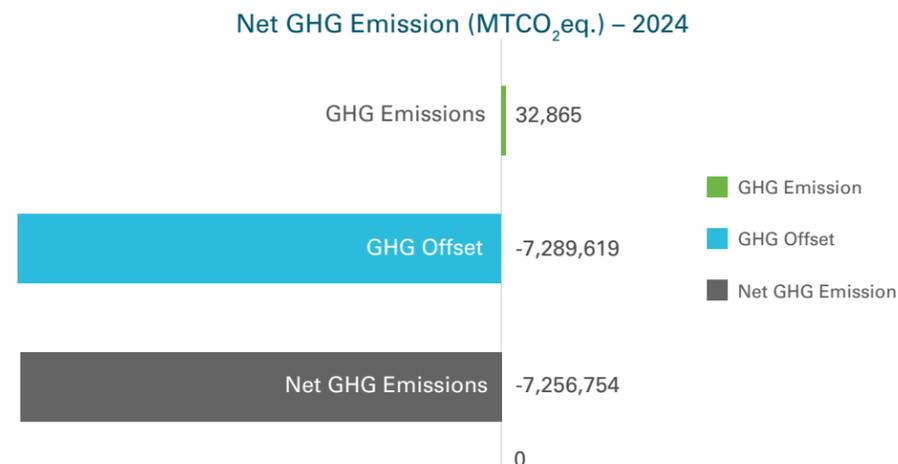
His Excellency Suhail Al Mazrouei,
UAE Minister of Energy and Infrastructure

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

In 2024, With four units fully operational and contributing significant clean electricity to the UAE grid, Barakah plant's GHG offset and Net GHG emissions for the year 2024 are presented below.



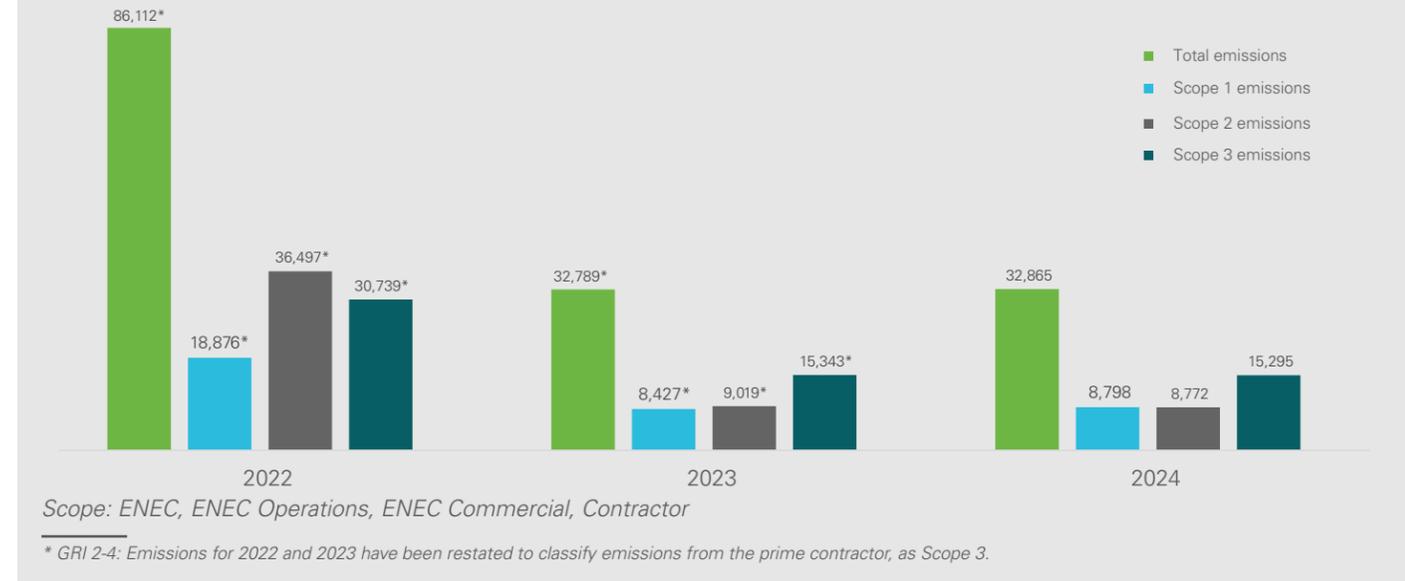
We tracked direct and indirect emissions from the construction and operation processes of the plant as follows.

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 operational boundaries of the organization

GHG Emissions Trend (MTCO₂eq.)



In 2024, we adopted the operational control approach to account for our greenhouse gas emissions, ensuring a clearer reflection of the emissions we can directly influence. This shift allowed for a more accurate and consistent assessment of our environmental impact across facilities. As a result, we have significantly reduced our Scope 1 and Scope 2 emissions through targeted energy efficiency initiatives. These improvements underscore our commitment to responsible environmental stewardship and transparent reporting.

GHG Emission Intensity

GRI 2016: 305-4, GRI 2021: 2-4

With completion of start-up activities and with all four units operational, the emissions intensity per unit of energy produced by ENEC has considerably reduced over the years.

GHG Emission Intensity (MTCO₂eq/GWh)



Scope: ENEC, ENEC Operations, ENEC Commercial, Contractor

* GRI 2-4: Emission Intensity for 2022 and 2023 has been restated due to change in the emissions calculation methodology to improve accuracy and alignment with the GHG protocol.

GHG emission intensity in 2024
0.97

4.3 Energy Management

GRI 2018: 302-1, 302-3, 302-4

In 2024, multiple energy efficiency projects were initiated to reduce ENEC's electricity and water consumption in alignment with the Department of Energy's policy regarding reducing the electricity consumption by 22% and water consumption by 32% in the emirate of Abu Dhabi by 2030.

Energy Consumption

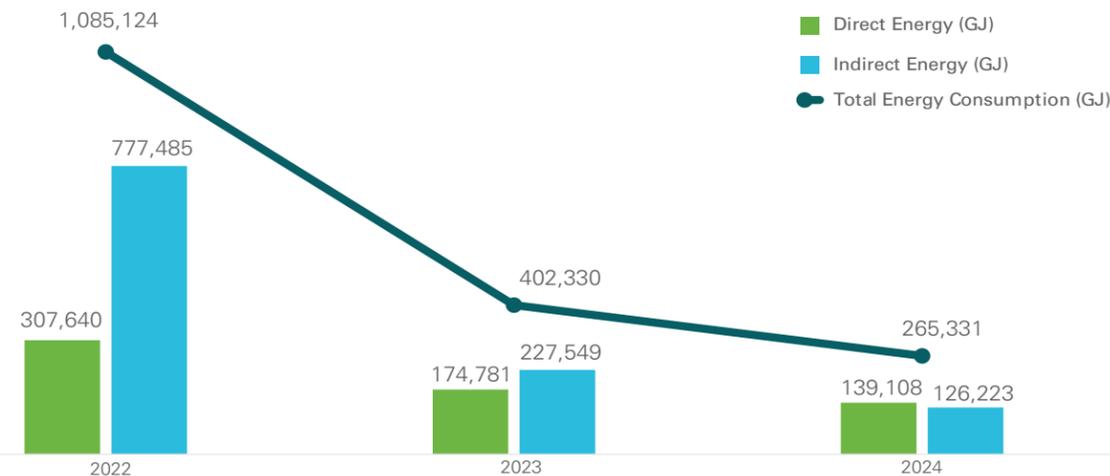
Implementing the Estidama Pearl Building Rating System demonstrates our commitment to environmental responsibility and contribute to the UAE's efforts to create more sustainable and resilient communities.

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. We utilized gasoline and diesel as direct energy sources.

- 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.

Table below summarizes the energy consumption across ENEC

Energy Consumption (GJ)



Energy Intensity (GJ/person)

	2022	2023	2024
Energy Intensity (GJ/person)	88.51	48	89

Scope: ENEC, ENEC Operations, ENEC Commercial

Starting in 2024, we propose to revise the methodology for calculating energy intensity to focus solely on the usage reported by ENEC and its subsidiaries, in alignment with the organization's water and energy conservation initiatives.



4.4 Material Use

GRI 2016: 301-1

The construction of a nuclear energy plant necessitates the extensive use of materials such as nuclear-grade concrete and steel, which are critical to the facility's safety and reliability. Material consumption in 2024 saw a decrease with the completion of major construction activities. The use of concrete and steel were mainly for the gantry crane micropile work at Unit 2.

Material Used

	2022	2023	2024
Steel Used (metric tons)	365	667.25	8.16
Concrete Used (cubic metres)	12,840	1367.8	48

Scope: Contractor

Material consumption in 2024 saw a decrease with the completion of major construction activities

4.5 Water and Wastewater Management

Water

GRI 2016: 303-1,303-2

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 accommodations 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 Barakah facility we use TSE for landscaping for the buildings, contractors employ the TSE for dust control and suppression during construction activities.

Water Consumption

	2022	2023	2024
Water Consumption (cubic meters)	1,768,781.32	870,335.42	112,396
Water Intensity (cubic meters/person)	144.27	103.45	17.9

Scope: ENEC, ENEC Operations, ENEC Commercial

The observed steep decrease in water consumption and water intensity from 2024 is due to a proposed change in the calculation methodology, which focuses solely on usage reported by ENEC and its subsidiaries, aligned with the organization's water and energy conservation efforts.

Wastewater

Our non-hazardous liquid waste consists of industrial greywater and sewage from the Barakah administrative buildings, staff accommodations, and site operations. All non-hazardous liquid waste undergoes treatment in the onsite industrial and sanitary wastewater treatment plants.

In 2024, 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

	2022	2023	2024
Wastewater recycled offsite (liters)	0	114	0
Wastewater recycled onsite (million liters)	1,399	894.62	1,355
% of wastewater recycled onsite	100	100	100

Scope: ENEC, ENEC Operations, ENEC Commercial

Hazardous Wastewater

	2022	2023	2024
Hazardous liquid waste disposed (liters)	NA	176,270	36,700
Hazardous liquid waste recycled (liters)	107,400	48,640	26,690

Scope: Contractor



4.6 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, and staff accommodations are the principal source of municipal solid waste generation. Being a nuclear facility, the waste generated can be classified into Hazardous, Non Hazardous and Radioactive waste.

NON-HAZARDOUS WASTE

ENEC and its subsidiaries, worked together to divert 23.3% of waste from landfills.

	2022	2023	2024
Non Hazardous waste disposed (metric tons)	6,600	7,586.76	3,442.90
Non Hazardous waste recycled (metric tons)	6,010	20,595.46	981.14
% of total non-hazardous waste recycled	47.7	73.08	23.3

Scope: ENEC, ENEC Operations, ENEC Commercial

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 2024, the hazardous waste generated from waste oil, batteries, and E-waste were recycled.

	2022	2023	2024
Hazardous waste disposed (metric tons)	487	149.532	767.46
Hazardous waste recycled (metric tons)	107,918.38	62.50	23.3
% of total hazardous waste recycled	99.55	29.48	2.95

Scope: ENEC, ENEC Operations, ENEC Commercial

4.7 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 four healthy sea turtles that were released back to the sea.

In the year 2024, we found 38 sea turtles; 20 of them were found alive. The majority of the rescued turtles were critically endangered hawksbill turtles (n=13), followed by endangered green turtles (n=24). The one unknown was found dead.



SOCIAL IMPACT

Continuously enhancing our position as a socially progressive employer and providing long-term, positive impacts to colleagues and our local community.



5. Social Impact



5.1 Our Workforce



At ENEC, we are committed to fostering a workplace that champions inclusivity, growth, and social responsibility. By prioritizing employee well-being and community engagement, we strive to create lasting, positive impacts that extend beyond our organization, strengthening the social fabric of the regions we serve

Empowering people is the key to real and sustainable progress for an organization.

At ENEC our objective is to enhance our position as a socially progressive employer and provide long-term, positive impacts to colleagues and our local community.

Growing with our People

We are committed to fostering a dynamic and supportive work environment, aimed at attracting and retaining top talent from both the UAE and around the world. Our diverse team represents a wide range of nationalities while proudly upholding the UAE's rich traditions and heritage. Women made up 16.8% of our workforce in 2024, and we continue to champion initiatives like Women in Nuclear (WiN) to promote increased female participation in the nuclear sector. Recognizing the value of investing in our people, we provide outstanding professional development opportunities, employee friendly policies and practices for our people.

POLICIES AND PRACTICES

Employment and Labour practices:

ENEC has policies to cover people of determination and hiring of juveniles in compliance with Articles 20 and 21 of the UAE Labor Law. The organization shall not employ a young person of either sex before they reach 15 years of age



Anti-Discrimination

GRI 2016: 406-1

ENEC prohibits discrimination based on race, color, sex, religion, national origin, social origin, or disability among persons, which would impair equal opportunities or prejudice equality in obtaining or continuing a job and enjoying its rights. Employer is prohibited to discriminate in businesses with the same job duties.

ENEC has different platforms to ensure it's employees can raise their concerns without the fear of retaliation.

There were no cases of discrimination reported in 2024.

HIGHLIGHTS OF INITIATIVES FOR EMPLOYEE WELFARE IN 2024

In 2024, ENEC implemented initiatives for physical and mental wellbeing of its employees with the following programs:

Beyond Program: gym membership with number of local gyms.

The Employee Assistance program (EAP), offers our employees and their family members confidential access to mental health professionals, psychologists, dieticians, fitness and life coaches, as well as financial and legal consultants. These services are offered through Lyra Wellbeing, and are completely anonymous.

Bayzat Wellness Hub is an all-in-one wellness platform that encourages physical wellness, where you can gain points through physical activity, get discounts off wellness services and track your progress. This app is available on both the Apple and Google Play Stores.

Privilee Program: One membership that provides the members complimentary and unlimited access to the UAE's best venues such as five-star hotel pools and beaches, world-class gyms and sport activities. In addition, members can save at restaurants and cafes.

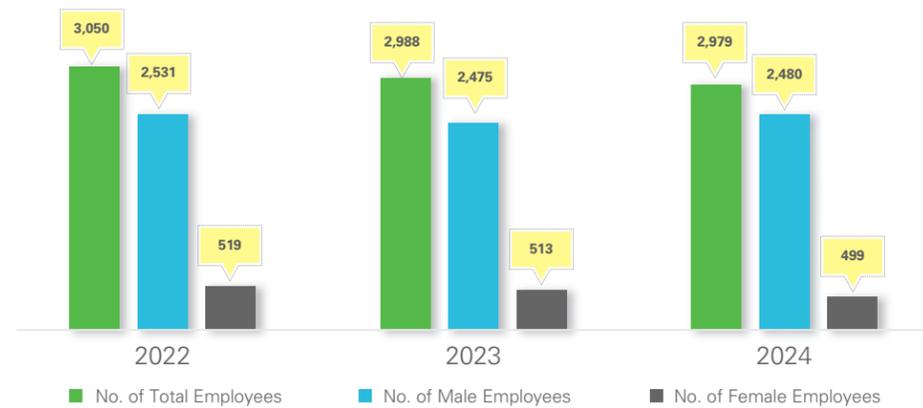


Diversity and Equal Opportunity

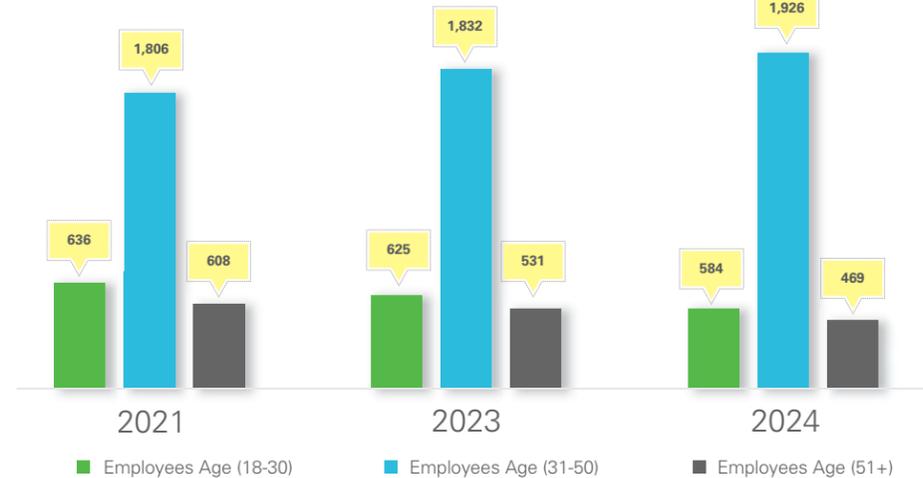
GRI 2021: 2-7, GRI 2016: 405-1

In 2024, ENEC's workforce comprised 2,979 skilled professionals from diverse nationalities, with nearly 54% UAE nationals leading one of the world's largest nuclear energy projects. Women made up 16.75% of the team, and strong youth participation (ages 18–30) underscored our commitment to national goals around youth employment and the development of future Emirati talent.

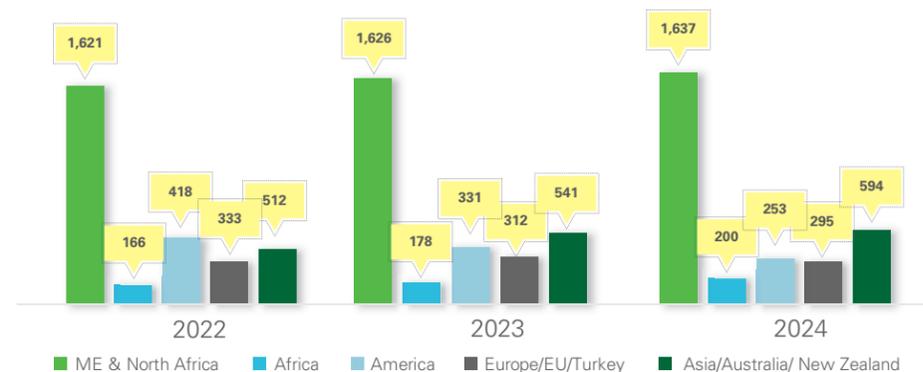
Our Workforce Diversity



Diversity by Age



Diversity by Nationality

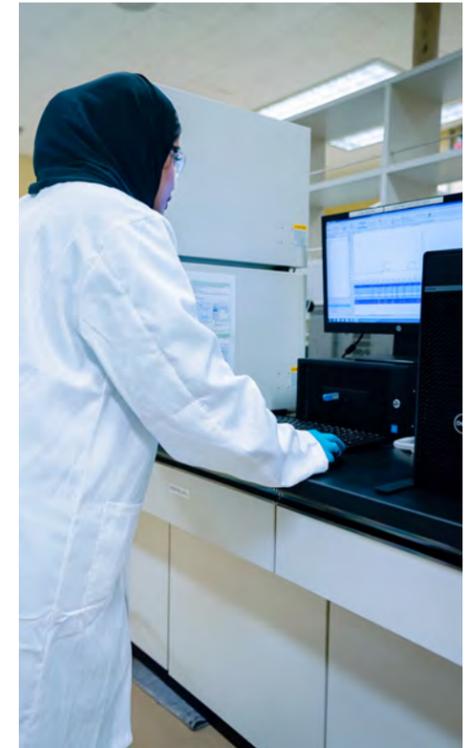


Scope: ENEC, ENEC Operations, ENEC Commercial

Female Participation

GRI 2016: 405-1

We are committed to gender equity, actively advancing the professional growth of our female employees to enhance their impact in the nuclear industry. In 2024, our workforce included 499 women employees making up 16.75% of the total workforce. There was a significant increase in the number of women in the senior management positions reinforcing our position as one of the most gender diverse nuclear energy plant in the world.



WOMEN IN NUCLEAR (WiN)

The Women in Nuclear (WiN) program at ENEC is dedicated to supporting the vital role of women in the nuclear industry by promoting professional growth, visibility, and inclusion. With a vision to foster a deeper understanding of women's needs within the organization, WiN focuses on empowering female professionals across all areas of nuclear energy and enhancing their experience at Barakah. The program aims to support women pursuing professional excellence, improve representation at national and international levels, and increase visibility within the sector. Additionally, WiN actively works to enhance organization-wide female engagement and wellbeing, contributing to a more inclusive and supportive workplace.

The WiN program at ENEC also supports organization-wide efforts to help women achieve work-life balance through social engagement activities, recognition of achievements, and encouragement to participate in non-work-related hobbies and interests—creating a well-rounded and empowering environment for all women at ENEC.

WiN programs and initiatives



Virtual Book Club: A platform to inspire and connect women through discussions that promote confidence, leadership, and growth



Social & Wellness Events: Activities like pottery workshops, paddle sessions, basketball tournaments, and access to a dedicated ladies' gym trainer support work-life balance and community through active engagement with various organizations



Female-Focused Facilities: Initiatives at Barakah include female-only accommodations; women's break rooms, and dedicated spaces to ensure a safe and supportive workplace through active engagement with various organizations



Enhanced Visibility: Increased national and international representation through active engagement with various organizations



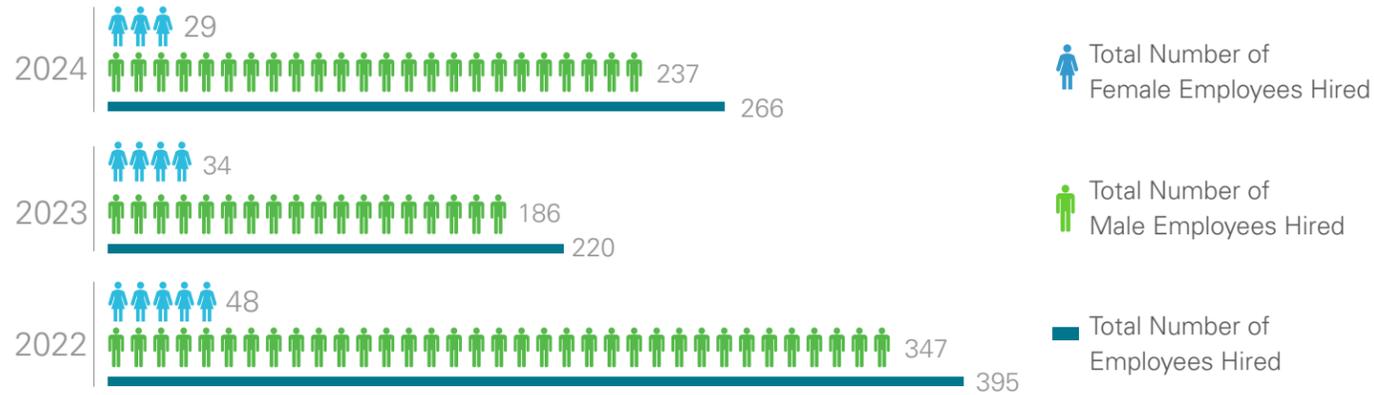
Women in Nuclear

Recruitment and Onboarding

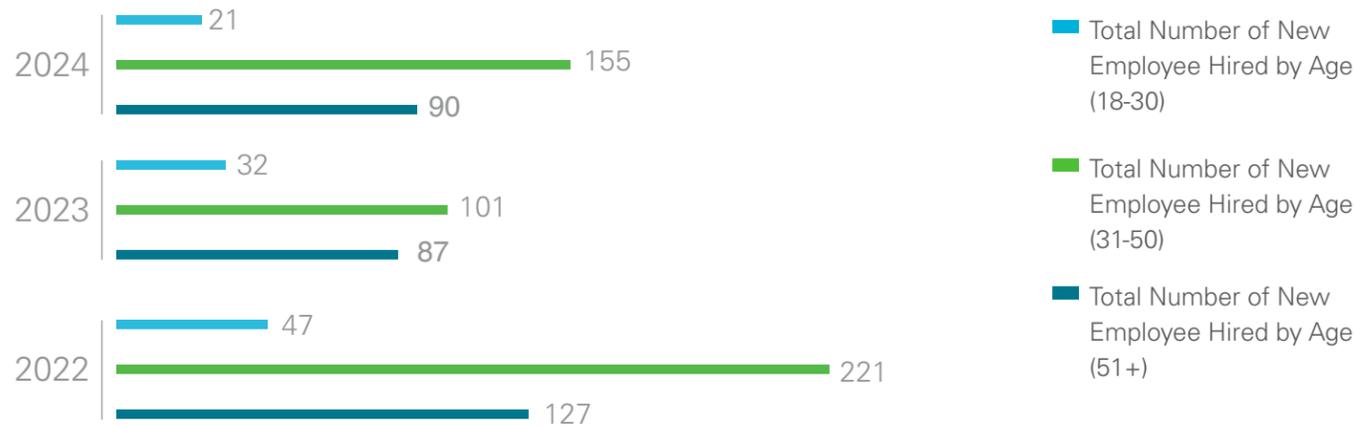
GRI 2016: 401-1

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.

Hiring Trends



New Hires Distribution – By Age



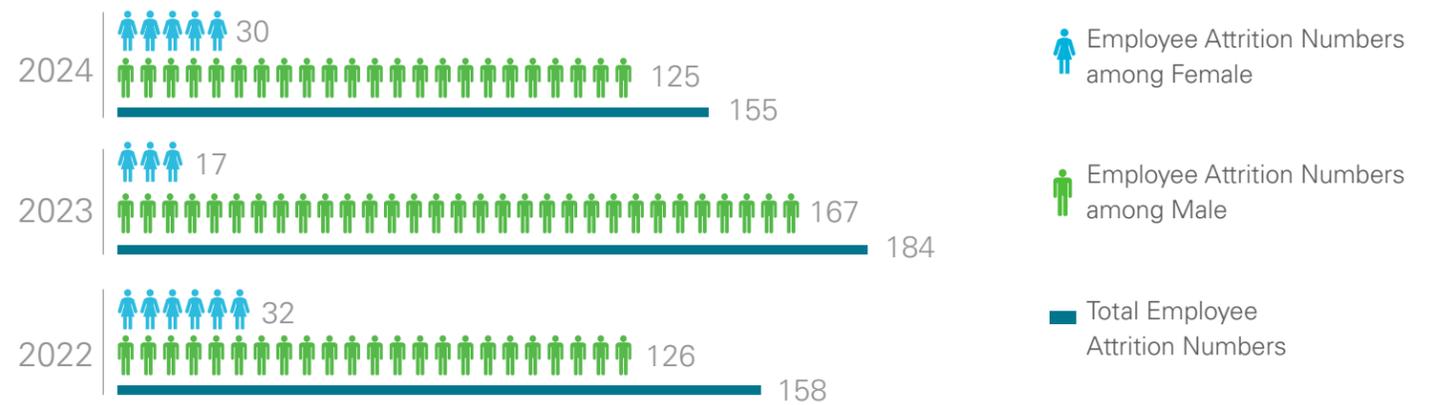
New Hires Distribution – By Nationality

	2022	2023	2024
Total Employee Hired Among Expats	278	138	173
Total Employee Hired Among UAE Nationals	117	82	93

Employee Attrition Rate



Employee Attrition – By Gender



Employee Attrition – By Nationality

	2022	2023	2024
Total Employee Attrition Among Expats	97	157	103
Total Employee Attrition Among UAE Nationals	64	27	52



Employee Benefits

GRI 2016: 201-3

ENEC offers a comprehensive range of employee benefits to full-time employees, contractors, and consultants, with policies that often exceed market standards—such as enhanced parental leave and flexible remote work options.

Benefits cover the full employment lifecycle, from onboarding to repatriation. Employees receive relocation assistance, visa support, health insurance, and various workplace insurances. During employment, they have access to loan facilities, and upon completion, repatriating employees are supported with end-of-service benefits, continued visa assistance, and relocation support.

ENEC has an employee engagement survey to assess employees' satisfaction and an employee assistance program focusing on employee welfare.



SALARY AND REMUNERATION

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

ENEC is committed to achieving pay equity among male/female employees and senior executives, along with creating an inclusive organization. ENEC follows a structured approach to remuneration and benefits, ensuring fairness and transparency this includes:

 REMOTE LOCATION WORKING BENEFITS	 TRANSPORTATION AND TRAVEL BENEFITS	 HARDSHIP BENEFITS	 COMMUNITY AND LIFESTYLE BENEFITS
 CHILDREN EDUCATION ASSISTANCE	 HEALTH AND LIFE INSURANCE PLANS	 ANNUAL PERFORMANCE INCENTIVES	 RELOCATION AND REPATRIATION BENEFITS



END-OF SERVICE BENEFITS

Abu Dhabi Retirement Pensions and Benefits Funds settles the pensions directly with the employee who is a UAE national. For expats, ENEC maintains sufficient fund to cover payments of end of service benefits.



PARENTAL BENEFITS

In terms of parental leave, we have multiple leaves to support such as Maternity Leave for female employees and Paternity Leave for male employees.

Employee Engagement

EMPLOYEE ENGAGEMENT AND SATISFACTION

Between June and July 2024, we launched NCS+, a combined Nuclear Safety Culture and Employee Engagement survey to enable ongoing trend analysis and better understand the connections between safety culture and employee engagement.

 3,004 employees (89%) completed the survey with 5005 written comments	 100 individuals participated in one-on-one interviews	 100 staff members engaged across ten focus groups	 20 VP-Director feedback sessions were conducted
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The survey identified the highest-performing traits as safety communication, personal accountability, and a questioning attitude.

The NCS+ assessment, feedback, and action planning process is central to our strategy for enhancing nuclear safety, employee engagement, and continuous improvement. Insights from the data analysis guided action-setting workshops with Chiefs, VPs, and Directors, helping shape our leadership strategies for 2025.

During data collection process, we had gathered insights through surveys, focus groups, and one-on-one interviews with employees across all levels of the organization:

Data collection was followed by analysis to identify patterns and areas of concern. The results were rolled out through action setting workshops with Chiefs, VPs and Department Directors informing Leadership Strategies for 2025.

EMPLOYEE RECOGNITION AND REWARD FRAMEWORK

ENEC's Recognition Program acknowledges employees for exceptional performance in a structured and objective way. For nomination, employees must meet one or more criteria. The criterias such as completing a short-term project or special assignment with a unique or innovative approach, exceeding expectations on a task, boosting office morale through teamwork, showing adaptability under tight deadlines, delivering outstanding customer service, enhancing job-related knowledge and skills while remaining efficient, strengthening ENEC's brand image, or consistently demonstrating the organization's core values.

RECOGNITION SCHEME

The objective of the scheme is to establish a structured and objective recognition framework that rewards employees for exceptional performance through spot and corporate awards. Additionally, ENEC acknowledges employee loyalty and commitment through Long Service Awards as part of its broader recognition program.

Employee Development

The Organization offers soft skills and leadership development programs:

LEADERSHIP DEVELOPMENT PROGRAM

ENEC offers structured leadership development programs targeted at various leadership levels. They are as follows:

<p>ESTADAD Eight-day development program for high-potential nuclear safety contributors, building skills in self-management, accountability, change management, communication, and strategic thinking.</p> <p>285 leaders completed in 2024 (384 total hours)</p>	01	62 leaders completed in 2024 (256 total hours)
<p>FOUNDATIONAL ALIGNMENT SESSION (FAS) Two one-day sessions for first-line leaders to address leadership gaps in the field and promote unified action as nuclear business leaders.</p> <p>285 leaders completed in 2024 (384 total hours)</p>	02	<p>INTILAQA Four-day mandatory program for new first-line leaders (ROs and SROs) focused on foundational leadership in nuclear environments through Leading Effective Teams (LET).</p> <p>419 leaders completed in 2024 (344 total hours)</p>
<p>ONWARDS TO NUCLEAR EXCELLENCE (ONE) Three-week transformational program for selected Managers and Directors to enhance station performance, engagement, and safety through collaboration, growth mindset, neuroscience, and leadership focus.</p> <p>32 leaders completed in 2024 (16 total hours)</p>	03	<p>CONTINUOUS LEADERSHIP DEVELOPMENT (CLD) Two one-day sessions for Managers and Directors to align on leadership challenges and strategic direction within nuclear operations.</p> <p>52 leaders completed in 2024 (360 total hours)</p>
<p>INSTITUTE OF NUCLEAR POWER OPERATIONS (INPO) Seven specialized leadership courses held in Atlanta for nominated leaders, focusing on nuclear-specific topics and industry best practices.</p>	04	<p>MASTER CLASSES Four one-day sessions for C-level executives to align vision and strategy, assess culture, and define a roadmap toward strategic goals.</p> <p>19 leaders completed in 2024 (1,020 total hours)</p>

Organization also offers coaching and mentoring initiatives designed to accelerate the development of top talent and future leaders. **The Leadership Mentoring Program** pairs senior leaders with emerging talent to transfer critical knowledge, values, and expertise. **The Executive Coaching Program** offers personalized support for mid- and senior-level leaders (Chiefs, VPs, and Directors), with 15 leaders participating and over 55 sessions held since its launch in Q4 2024. **Coaching for High Potential Employees**, integrated into the ESTADAD program, supports reflection, collaboration, and growth, with over 90 participants across four 2024 cohorts. Additionally, the **Mentoring Program**, aligned with line managers, currently includes 71 mentees and 52 mentors focused on unlocking potential and enhancing leadership effectiveness.

TALENT MANAGEMENT FRAMEWORK

Talent Management supports the safe and sustainable operation of Barakah plant through the proactive planning, development and growth of Talent. Talent management comprises of succession planning and bench strengthening.

The Succession Planning Framework provides a structured approach to identifying and developing future leaders to ensure long-term operational sustainability. It focuses on key succession positions, talent pool identification, and tailored development plans.

Across ENEC and its subsidiaries, 194 succession positions were identified with 350 successors, 96% of whom were Emirati. Complementing this, 18 Journey Maps were created to outline career progression for critical roles. These maps guide employees on required skills, competencies,

and developmental activities aligned with the 70-20-10 learning model. They also enhance retention and engagement by supporting professional growth, promoting internal mobility, and reinforcing the organization’s commitment to long-term career development.

TALENT PIPELINE PROGRAMS

The organization’s commitment to fostering a skilled, engaged, and future-ready workforce is central to our ESG strategy. Through targeted programs, we aim to strengthen our talent pipeline, enhance our employee capabilities, and ensure sustainable leadership development.



Graduate Development Program – A 2-year development initiative for fresh bachelor’s graduates across technical and non-technical fields. In 2024, 22 graduates were recruited, with 50% in engineering roles



Diploma in Nuclear Technology Program – A 2-year vocational training program for high school graduates to become future equipment local operators at Barakah Nuclear Energy Plant. In 2024, 30 students enrolled

AWARDS AND RECOGNITIONS IN 2024

 <p><i>Khalifa University Award : FURSAH CAREER FAIR 2024</i></p>	 <p><i>Mohamed bin Zayed University of Artificial Intelligence: AWARD FOR SUPPORTING INTERNSHIP PROGRAMS</i></p>	 <p><i>Abu Dhabi University: OUTSTANDING INDUSTRY PARTNER AWARD</i></p>	 <p><i>Ruler’s Representative Court – Al Dhafra Award: FOR PARTICIPATING IN “AMBITION INITIATIVE”</i></p>
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5.2 Employee Concerns Program

GRI 2021: 2-25,2-26

The Employee Concerns Program (ECP) supports Nuclear Safety Culture and a Safety Conscious Work Environment (SCWE), where employees can raise concerns freely and without fear of retaliation. Concerns are reviewed, prioritized by safety significance, and addressed with timely feedback. The program respects employees' rights to report concerns anonymously or publicly.

ECP provides a confidential and independent process for employees and contractors to seek intervention, consultation, or resolution for nuclear safety and quality concerns.

Program Objectives

- To provide personnel with an alternative and independent process to seek intervention, consultation, or independent resolution of Nuclear Safety and quality concerns without fear of Harassment, Intimidation, Retaliation and Discrimination (HIRD).
- To promptly identify and mitigate any nuclear safety concerns they may have.

Employee Concerns Program Framework

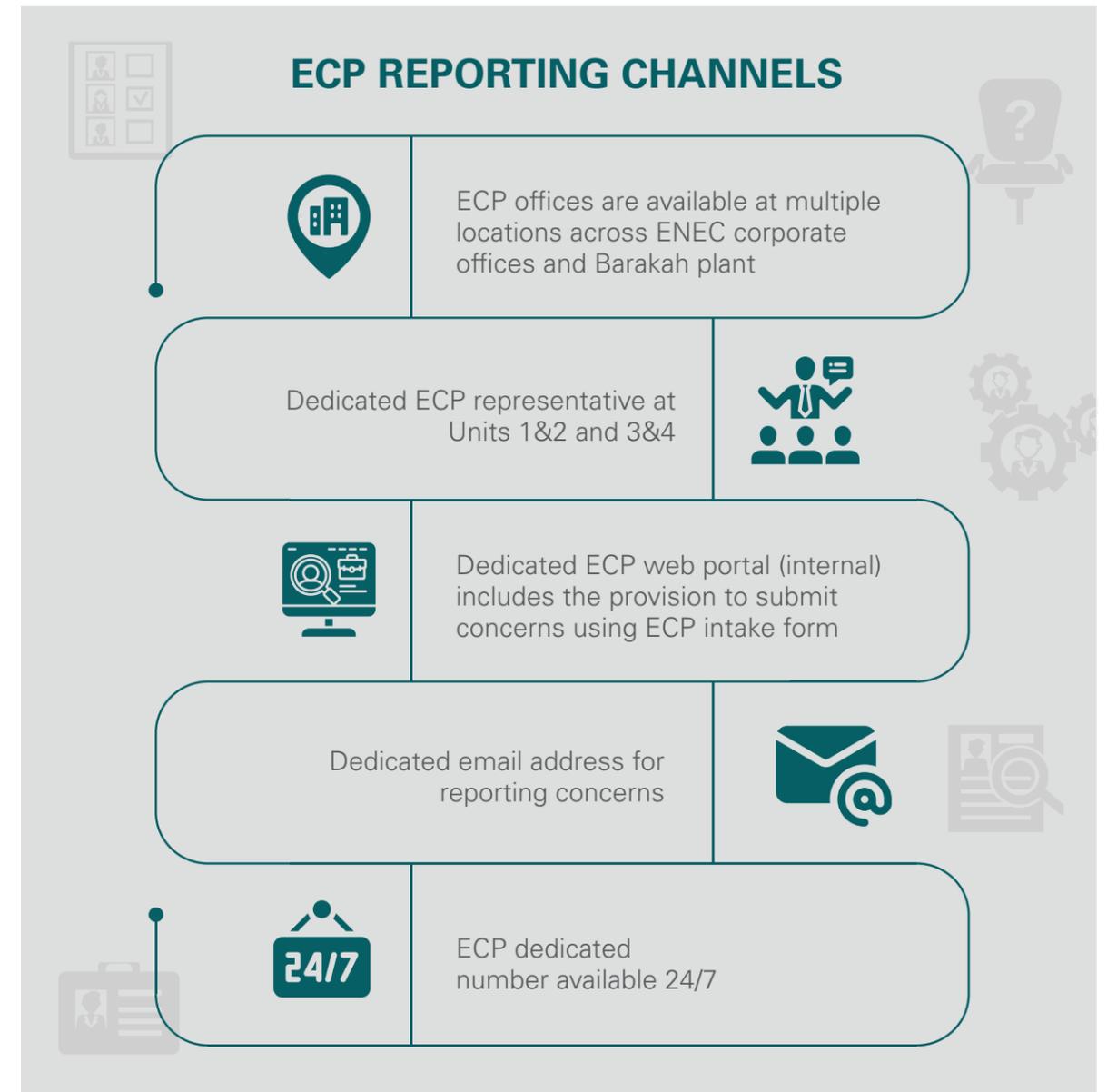
- Procedure - Employee Concerns Program
- Procedure - Employee Concerns Program Investigation and Interviewing
- Employee Concerns Program Description

ECP procedure provides a framework to foster responsible and secure reporting of nuclear safety concerns. Highlighting the importance of having a process that makes disclosure of nuclear safety concerns possible and takes employee concerns seriously.

Its framework serves to receive and address any concern or complaint regarding nuclear safety and quality concerns and/or allegations of Harassment, Intimidation, Retaliation, or Discrimination, resulting from the identification of nuclear safety or quality concerns.

INDUSTRY COOPERATION

ENEC is a Platinum Sponsor of the National Association of Employee Concerns Professionals (NAECP). ENEC's ECP team staff actively participate in the NAECP activities and seek industry guidance when required. 2 ECP employees participated in the annual NAECP Conference in 2024.



Awareness Campaigns and Training

On boarding sessions, introduce employees to ECP, emphasizing their responsibility to support a Safety Conscious Work Environment and report nuclear safety or quality concerns.

Awareness Sessions

Regular sessions are held to raise awareness about ECP, supported by a communication plan that uses various methods—such as podcasts, LCD messages, posters, monthly articles in Barakah One Minute, and training modules—to promote Nuclear Safety Culture and SCWE (Safety Conscious Work Environment).

SCWE training available in TAQA, approximately 215 participants have completed the training YTD.



5.3 Community Engagements

ENEC contributes to the local community through targeted sponsorships that promote safety, education, and well-being, while supporting the development of Emirati talent for the UAE’s Peaceful Nuclear Energy Program. These efforts also drive social and economic growth in the Al Dhafra Region, home to the Barakah Nuclear Energy Plant. ENEC actively engages in major STEM initiatives such as the Abu Dhabi Science Festival, Emirates Skills, Women in Nuclear, and Emirati Bright Minds, and collaborates with local entities including the Al Dhafra Municipality, Development Council, Urban Planning Council, and Sports & Cultural Club to enhance regional development and community engagement.

Community Welfare

GRI 2016: 413-1

By investing in local events and programs, the organization promotes social welfare, strengthens community ties, and advances its broader vision of sustainable development and long-term community enrichment. In 2024, the organization reinforced its commitment to social responsibility and community engagement by contributing over AED 1.88 million in sponsorships for local activities and initiatives.



ENEC has made sponsorships to Women in Nuclear Global, Al Dhafra Region Municipality, Atlantic Council of the United State and CERAWeek Sponsorship. Some of the events ENEC was part of



GOVERNMENT GAMES

ENEC takes part in the Government Games to foster teamwork, resilience, and cross-sector collaboration among its employees, in line with its commitment to operational excellence



LIWA DATES FESTIVAL

ENEC joins the Liwa Dates Festival to celebrate UAE heritage, connect with local communities, and support sustainability in agriculture and energy alike



AL WATHBA CYCLING CLUB

ENEC sponsors and supports the club to promote wellness, active lifestyles, and community participation in sustainable living



AL WATHBA SHOOTING CLUB

ENEC engages with the club to support local sports and contribute to cultural and recreational initiatives in the Al Dhafra region

National Talent Development

GRI 2016: 413-1, 413-2, 202-2, GRI 2021: 2-4

With deep engagement with local communities and youth, we continue to focus our efforts towards building a strong pipeline of Emirati talent, ensuring sustainable talent practices for the future.

KEY INITIATIVES INCLUDE:



TRAIN FOR WORK PROGRAM –

Offers employability skills training and hands-on experience for Emirati youth. In 2024, 39 i-trainees joined the organization, with 71% securing permanent positions



MUSTAQBALI PROGRAM –

A 2-week experiential STEM learning initiative targeting high school students to inspire future careers in nuclear and energy sectors. In 2024, 50 students participated

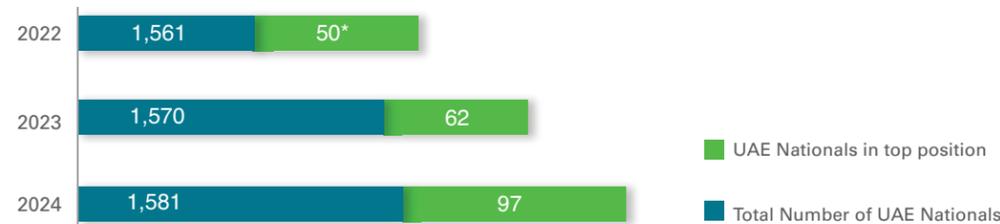


UNIVERSITY INTERNSHIP PROGRAM –

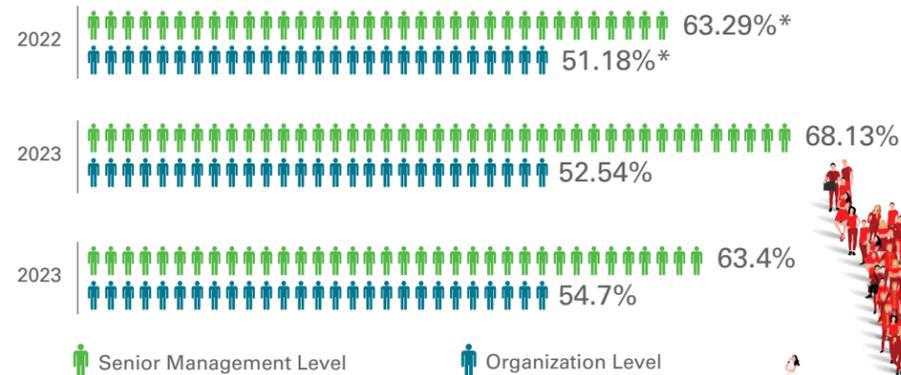
Provides practical experience to UAE university students aligned with their academic specializations. In 2024, 22 students completed their internships with us

In addition, we have engaged with various stakeholders to ensure the success of our initiatives, including Applied Technology High School and local universities. Collaboration with government entities such as the Department of Government Enablement, Abu Dhabi Department of Education and Knowledge, the UAE Ministry of Higher Education and Scientific Research (MOHESR), and the National Service and Reserve Authority reflects our commitment to empowering national talent, promoting career readiness, and contributing to the UAE's knowledge-driven future.

Emiratization



Emiratization Rate



Scope: ENEC, ENEC Operations, ENEC Commercial

*reinstated data for 2022

The Barakah Youth Council (BYC)

The Barakah Youth Council (BYC) continues to drive impactful youth engagement in the UAE's peaceful nuclear energy sector. Launched in 2018 as part of the organization's strategy to develop young nuclear leaders, the BYC aligns its activities with the organization's sustainability and strategic goals. These following sections will highlight BYC's key achievements in 2024 and outlines its vision for 2025, focusing on expanding partnerships, increasing nuclear energy awareness, and fostering youth leadership in the clean energy transition.

BYC Structure and Leadership

To effectively execute its mission, BYC operates through a structured leadership team, with each member holding a specific role that contributes to the council's strategic objectives.

2024 ACHIEVEMENTS – SUMMARY OF KEY MILESTONES:

- 1 Hosted IYNC 2024 in Abu Dhabi:**
Successfully brought together over 400 young nuclear professionals from 47 countries, fostering global collaboration, knowledge exchange, and youth engagement in nuclear sustainability and innovation
- 2 Led Youth Delegation at NEA Paris – “Roadmaps to Nuclear 2035”:**
BYC played a key role in strategic discussions at the OECD NEA conference, contributing youth perspectives on decarbonization and talent development alongside ministers and industry leaders
- 3 Contributed to Military Service and Local Outreach:**
Highlighted the peaceful use of nuclear energy and promoted leadership and technical skills among UAE youth through national military service initiatives
- 4 Advocated for Nuclear at COP29 through Nuclear4Climate:**
Actively participated in global climate dialogues, positioning nuclear energy as a vital solution for achieving net-zero goals and continuing strong youth representation from COP28

In 2025, BYC plans to maximize the partnerships with key organizations such as the Arab Youth Center (AYC), increase youth outreach, engage with other national and international youth councils and foster youth-led innovation in areas of nuclear science & technology and promote discussions around on climate change.



5.4 Responsible Supply Chain



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. Developing a supply chain that is increasingly local and meets the environmental, social, and sustainability standards while boosting UAE's GDP is a key sustainability objective

Sustainable Supply Chain Management

GRI 2021: 2-6, GRI 2016: 308-1, 308-2, 414-1, 414-2

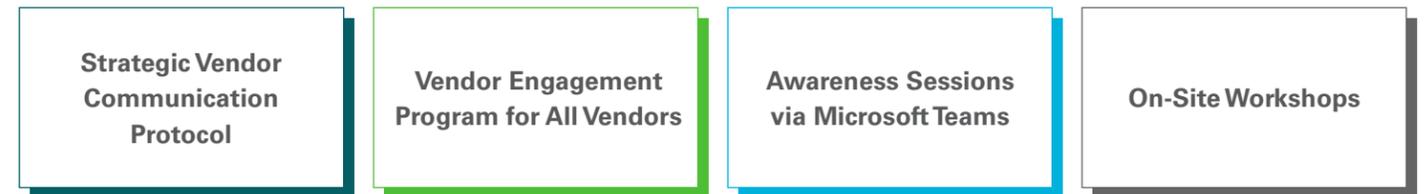
Our supply chain operations encompass crucial domains, including Governance, Oversight, Support, and Performance (GOSP), strategic procurement, strategic contract management, operational procurement, inventory management, and warehouse and logistics. These functions are supervised and assessed based 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 3,415 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 (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 favourable contractual terms while complying with legal and regulatory obligations. Moreover, **the procurement function aligns with sustainability goals, emphasizing environmentally and socially responsible sourcing practices.** The Supply Chain team, 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.

At ENEC strong supplier relationships are critical to operational excellence, safety, and long-term success. Recognizing the importance of timely and transparent communication, the Vendor Relationship Management (VRM) team at ENEC Operations has developed comprehensive initiatives to record and address supplier concerns and grievances—tailored to meet the needs of both strategic and non-strategic vendors, such as:



These initiatives have fostered a more collaborative and transparent ecosystem, where vendors feel heard and supported, and ENEC gains valuable insights into potential areas for improvement in its supplier management practices.



Supplier Code of Conduct



Contractor HSES Management Procedure

Supply Chain Overview

	2022	2023	2024
Number of Suppliers	3,101	6,407	3,415
Number of Local Suppliers	2,124	3,331	2,590

Supply Chain Expenditure

	2022	2023	2024
Annual Spend on Suppliers (USD Millions)	708	1,384.96	1,489.79

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 pre-requisites for suppliers to qualify for registration or contract awards



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 behaviour 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.

A new clause added in Registration of Vendors Procedure. The Vendor Qualification Management (VQM) Section shall conduct an integrity due diligence process including sanctions check to ensure that the prospective vendor does not have any sanctions or any adverse media reports by using appropriate tool as part of the third-party risk management activity.

Nuclear Specification Engineering (NSE) identifies the safety class, QA does the audit and adds them to NASL (Nuclear Approved Supplier List) list. SC issues PO for safety items to NASL approved vendors.

If the prospective Vendor has sanctions or adverse media report, VQM Section shall update the due diligence section of vendor profile. The Compliance and Ethics department will review the profile of vendors highlighted as High Risk and conduct further due diligence and remediation if required and consider the Vendors criticality. The Compliance and Ethics Department shall then notify the VQM section to take appropriate action as necessary.

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 2024. 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.

ENEC actively backs the Khalifa Fund for Enterprise Development (KFED), an organization committed to advancing and aiding entrepreneurial endeavours in Abu Dhabi. 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.

LOCALIZATION EFFORTS

The Industrial Development Team has worked with multiple companies that can potentially serve the Barakah Nuclear Energy Plant through services and products.

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.

Annual Spend on Suppliers

	2022	2023	2024
Total procurement spending on suppliers based in the UAE (USD millions)	517	948	345.93
Percentage of registered suppliers that are locally based (%)	68.5	51.9	75.84%
Percentage of procurement spending on locally based suppliers (%)	73	68.4	23.22%
Number of KFED suppliers registered (Locally owned SME companies funded by KFED) (Cumulative)	28	16	7

Scope: ENEC, ENEC Operations, ENEC Commercial

5.5 Business & Industrial Development



In Country Value Management

GRI 2016: 203-1,203-2

By strengthening the local supply chain, creating high-value opportunities for UAE businesses, and enabling global partnerships, ENEC is driving long-term prosperity. In 2024, the Industrial Development (ID) team advanced efforts to localize the Barakah Nuclear Energy Plant's supply chain, support plant operations, and explore business growth opportunities within the UAE nuclear program. Through strategic localization initiatives and global collaborations, ENEC is strengthening the UAE's leadership in nuclear energy while maximizing In-Country Value (ICV).

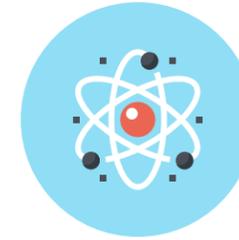
Aligned with the ID Localization Plan, key milestones were met across initiatives such as materials and services localization, qualification of a radiological protection testing lab, and expanded collaboration with French, Chinese, Japanese, and Korean nuclear industries. The team also fostered partnerships between international suppliers and local companies, while coordinating with MOIAT and DED to align industrial strategies.

In 2024 we have recorded AED 210 million in ENEC cumulative contributions to the National In-Country Value (ICV). Moreover, 73% of the non-safety contracts, were awarded to the local market.

INITIATIVES & PROGRAMS

<p>TOSHIBA DAY AT BARAKAH</p> <p>↔ ↔ ↔</p> <p>28 FEB 2024</p>	<p>LOCAL SME BARAKAH FORUM</p> <p>↔ ↔ ↔</p> <p>07 MAY 2024</p>
<p>MOIAT EVENT – "MAKE IT IN THE EMIRATES"</p> <p>↔ ↔ ↔</p> <p>28 MAY 2024</p>	<p>E-FUSION (LOCAL & FRENCH) SUPPLIER FORUM</p> <p>↔ ↔ ↔</p> <p>16 SEP 2024</p>
<p>JAIF (JAPAN ATOMIC INDUSTRIAL FORUM) SUPPLIER WEBINAR</p> <p>↔ ↔ ↔</p> <p>19 OCT 2024</p>	<p>E-CONNECT (LOCAL & CHINESE) SUPPLIER FORUM</p> <p>↔ ↔ ↔</p> <p>07 MAY 2024</p> <p>20 NOV 2024</p>

All events saw a massive participation and stimulated B2B talks between all parties, international companies, local supplier and stakeholders.



Advancing Nuclear Science & Innovation: ADQCC & G42 Collaboration

ENEC is advancing nuclear innovation with the region's first ISO 17025-certified radiochemistry lab, established with ADQCC and G42, to test radioactive samples and support Barakah Plant operations to the highest safety standards



Raising Local Supplier Standards: ASME NPT/NA-Stamp Certification,

- As part of our commitment to building a world-class nuclear supply chain, ENEC supported the region's first local fabricator in obtaining the ASME NPT/NA-Stamp certification, boosting local industrial capabilities and enabling UAE suppliers to compete globally
- The ID team focused on upskilling local suppliers, raising awareness of NOA-1 accreditation, and enhancing nuclear-specific capabilities, including testing labs. In plant support and business growth, the team advanced initiatives in Materials and Engineering Excellence, Knowledge Management, and new nuclear startups

Knowledge Transfer and Partnerships

ENEC actively fosters international partnerships to elevate the UAE's nuclear supply chain, enabling local companies to collaborate with global leaders in the industry.

Over the years 25 joint ventures and strategic partnerships established between International and UAE companies, facilitating knowledge transfer, industrial collaboration in the nuclear sector and reinforcing the UAE's global standing.

ROBUST GOVERNANCE

Through robust and transparent governance, ENEC demonstrates its commitment to sustainable practices and providing transparency around its decision-making processes.



6. Governance

The foundation of our corporate governance is built on responsible stewardship of our economic, environmental, and social commitments.

The Board of Directors and leadership team are dedicated to sustaining our long-term viability and success by continuously advancing our Environmental, Social, and Corporate Governance (ESG) standards. These standards are reviewed and rated annually by our holding company, ADQ. Our streamlined governance structure supports effective business operations, ensures comprehensive risk assessment and management across our plants and operations, and promotes the prudent and transparent use of funds.

In 2024, the Legal Department played a key role in supporting robust governance by providing strategic legal counsel across the organization and ensuring alignment with the organization's governance framework. It contributed to effective decision-making, facilitated Board and subcommittee operations, and supported the implementation of governance restructuring initiatives. The department also managed critical stakeholder relations and ensured legal compliance in both domestic and international matters, reinforcing transparency and accountability across all functions.

6.1. Governance Structure and Composition

[GRI 2021: 2-9, 2-12](#)

ENEC is a major contributor to clean energy in the UAE's energy mix and plays a key role in supporting the nation's Net Zero 2050 target. ENEC and its subsidiaries recognize the importance of strong leadership in advancing the UAE's Peaceful Nuclear Energy Program. The program is guided by a Board of Directors with extensive expertise in the nuclear, corporate, and governmental sectors, in collaboration with a seasoned executive management team.

The ENEC Board considers sustainability as a major governance topic covering a wide range of issues that include, climate change and other environmental risks, management of human capital and resource management among others, for the long-term success of the organization. The ENEC board maintains a collaborative role with management, providing oversight on the implementation of ESG-related policies, programs, and risk management processes.

ENEC has 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. Under the Board's leadership, ENEC and its subsidiaries regularly assess and enhance governance practices, aligning with the frameworks of ADAA, FANR, WANO, INPO, and other relevant regulations.



BOARD OF DIRECTORS: NOMINATION AND SELECTION

GRI 2021: 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. Performance results are taken into account when considering renewal of appointments and are shared with the Abu Dhabi Executive Council upon request.

BOARD OF DIRECTORS

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



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	<ul style="list-style-type: none"> Health and Safety Security Quality and Reliability Environmental Management
Audit, Risk, and Compliance Committee (ARCC)	ARCC assists the Board in discharging its responsibilities of overseeing Audit, Governance, Risk Management, and Compliance functions. The ARCC is composed of three members and is chaired by a Board Member. One member of the committee at least is independent of the ENEC Board of Directors	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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 (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 is 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 Audit Risk & Compliance Committee (ARCC).

The function conducts annual risk assessments covering all activities, including Governance, Finance, Procurement & Supply Chain, Information, and Communications Technology (ICT), Human Resources, Operations and any audit-related issues. **Internal Audit conducted 22 assurance and four advisory engagements in 2024, including an advisory engagement related to ESG.** 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 Risk & Compliance Committee (ARCC) and Senior Management are given insights on governance, risk management, and control arrangement from a comprehensive, holistic perspective.

Business Principles, Ethics and Compliance

We uphold a robust framework of standards, principles, and model behaviours to ensure the highest levels of ethical conduct and integrity, while maintaining full compliance with all applicable legal and regulatory requirements. This approach promotes a corporate culture rooted in accountability and transparency, effectively preventing fraud and misconduct.

COMPLIANCE

The Ethics and Regulatory Compliance functions are responsible for establishing, operating, and maintaining the compliance program, while fostering a strong culture of ethics and compliance across the organization and its subsidiaries.

In 2024, the Regulatory Compliance team implemented the Governance, Risk, and Compliance System – Emtithal 360 to enhance communication of legal and regulatory requirements to process owners and ensure effective compliance monitoring. Key procedures, such as the organization's Compliance Universe and Compliance Requirement Procedures, were updated to align with the system's automated tracking capabilities.

Additionally, a new procedure was introduced to guide compliance monitoring and reviews. This includes tabletop exercises, assessment of compliance adherence rates, and the use of a compliance scoring methodology across all identified compliance registers.

Any reported incidents of non-compliance, fraud, corruption, etc. are monitored and reviewed in line with the relevant organization's policies and procedures.

POLICIES AND FRAMEWORKS

Ethics and Compliance Framework

- The Ethics and Compliance Program addresses ethical, legal, and regulatory compliance aspects across the organization
- It is based on an international standards such as 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

- This policy establishes an integrated, systematic, and proactive corporate governance structure to support the achievement of organizational goals. It ensures effective governance of subsidiaries, promotes high performance, manages diverse risks, and upholds the highest standards of ethics and compliance with applicable laws, regulations, and agreements

The Ethics and Compliance Policy

- The organization's Ethics and Compliance Policy affirms our commitment to ethical conduct and strict compliance with applicable laws and regulations. ENEC and its subsidiaries uphold a zero-tolerance approach to all forms of fraud and misconduct, a principle that is embedded throughout the organization

COMPLIANCE AND ETHICS PROGRAM GOVERNANCE

[GRI 2021: 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.

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.

Employee Relations and Ethics Committee

This committee supports Senior Management in overseeing investigation of Fraud/ Misconduct cases under AFMP and decides appropriate disciplinary penalty.

There were no instances of non-compliance or failure to comply with laws and regulations resulting in fines, non-monetary sanctions, or monetary fines due to non-compliance in 2024.

ETHICAL COMPLIANCE PROGRAM

[GRI 2016: 205-1, 205-2, 206-1, GRI 2021: 2-26](#)

Code of General Business Principles and Ethics

ENEC has established a Code outlining the professional and ethical behavior expected from all employees, regardless of their role. It addresses key areas such as anti-fraud, anti-corruption, misconduct, health and safety, respect in the workplace, and protection against harassment, retaliation, and discrimination. Annual training on the Code is mandatory and tracked through the Learning Management System (LMS Taqa), with adherence reinforced through yearly disclosures via the Disclosure Management System.

Code of Conduct for Suppliers

The Supplier Code of Conduct defines the standards expected from suppliers and their associated parties when delivering goods and services to ENEC. It covers compliance with laws, ethical business practices, labor rights, health and safety, environmental responsibility, and anti-fraud measures. Suppliers are required to share the Code with all relevant personnel and ensure that individuals with the appropriate qualifications uphold these standards during their engagement.

Anti-Fraud and Misconduct Program (AFMP)

The organization's Fraud and Misconduct Investigation procedure was established with an aim:

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



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

ENEC Reporting Link: [My Voice](#)

Managing the Risks of Fraud, Bribery and Corruption

Organization's Compliance & Ethics Framework has been established to delineate the principles and methodologies aimed at preventing, detecting, and deterring instances of fraud, bribery, and corruption within the workplace. In alignment with this framework, Fraud Risk Assessments are performed annually, to assess the nature and extent of the fraud risks across various organization's functions.

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
- To 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 screen and monitor our suppliers to ensure compliance with relevant Sanction programs.

Awareness Campaigns and Training

The Ethical Compliance team delivers regular training sessions on Anti-Fraud Fundamentals, sessions to raise awareness about reporting channels, and other ethics-focused sessions for all employees. In 2024, 13 sessions were conducted across the organization focusing on below mentioned topics:

Code of Ethics

Anti-Fraud &
Misconduct Program

Conflict of Interest &
Business Courtesies

LEGAL AND REGULATORY COMPLIANCE PROGRAM

[GRI 2021: 2-15, 2-27](#)

We continue to maintain and regularly update the 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 Regulatory Compliance function facilitates the establishment of compliance registers for each area and regularly monitors them through a tabletop exercise as per compliance review and monitoring procedure.

We have significantly enhanced the Regulatory Compliance process description to ensure the organization consistently meets all statutory and regulatory requirements. This updated process encompasses the management of the compliance universe, facilitating compliance activities, and monitoring and assuring ongoing compliance. It is supported by a robust framework of procedures, forms, templates, and references that clearly define roles and responsibilities while providing key details of critical interactions with both internal and external regulatory bodies.

Law Vault is a digital library transforming legal information access and management. Powered by Optical Character Recognition (OCR) technology, it enables fast, precise searches across laws to locate specific provisions or articles. This innovation boosts accessibility, streamlines compliance, and enhances legal research efficiency.

In 2024, a **Supplementary Policies document** was implemented to strengthen the organization's Compliance Program. It introduced key policy statements on anti-fraud, bribery and corruption, conflict of interest, whistleblowing and non-retaliation, and business courtesies building upon the foundation laid by the organization's Ethics and Compliance Policy.



6.2 Financial Responsibility

ENEC and its subsidiaries are committed to responsible, efficient, and transparent operations in support of the UAE Peaceful Nuclear Energy Program. Through clear guidelines and protocols, we ensure efficient and effective use of government resources while promoting accountability, sustainability, and ethical governance—driving long-term program success.

Project Financing

GRI 2016: 201-1, 201-2, 201-4

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) 27.8 billion:

USD 18.2 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- Green Financing) during 2023



USD 0.3 billion was generated through loan agreements with five local and international commercial banks



A total of **USD 6.8 billion** in equity commitments were made for the establishment of the ENEC Commercial in exchange for equity interest in the company, shared between **ENEC (82%)** and **KEPCO (18%)**





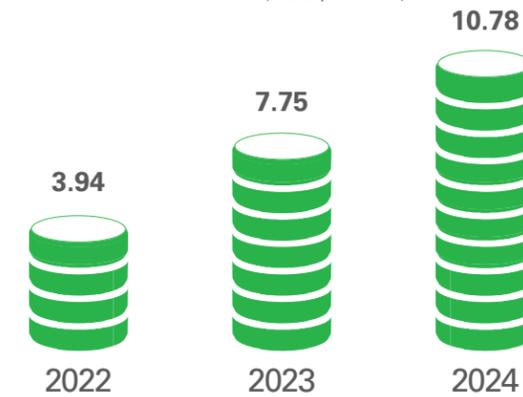
Budgeting and Spending

GRI 2016: 201-1, 201-2

ENEC's rigorous financial management practices demonstrate a commitment to fiscal responsibility and accountability. 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.

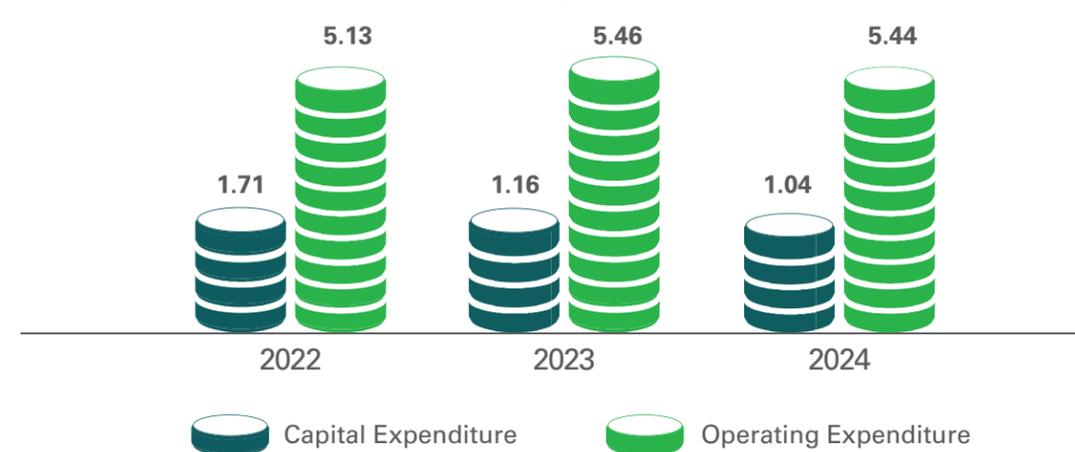
In 2024, the increase in revenue was mainly driven by the Unit 3 and Unit 4 COD and increased fuel revenue. Unit 4 commercial operation date was achieved earlier than planned while the refuel outages were accomplished faster than expected. Higher nuclear fuel was procured to secure supply for the succeeding refuel outages.

Direct Economic Value Generated
Revenue (AED, billion)



Capital expenditure decreased as Unit 4 construction was completed. Growing operating costs are a reflection of the rapid growth of operations & maintenance costs as ENEC started Unit 1 operations in 2021, Unit 2 in 2022, Unit 3 in 2023 and Unit 4 in 2024. The operational costs increase was driven by nuclear fuel consumption related to Unit 4 and ramp up in operations. While employee wages and benefits decreased as the organization moved from construction and operational readiness to operations phase, which led to demobilization of some employees. However, the organization supported employee development by increased spending on training.

Direct Economic Value Distributed
(AED, billion)



Scope: ENEC, ENEC Operations, ENEC Commercial

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

Green Financing

ENEC Commercial, the financing and commercial subsidiary of ENEC achieved the ground-breaking refinancing with the participation of two prominent UAE banks, First Abu Dhabi Bank (FAB) and Abu Dhabi Commercial Bank (ADCB), becoming first independently recognized as a green loan facility in MENA region and Asia.

The green refinancing of the Barakah project has been recognized winner of the ESG Loan Deal of the Year for the 2024 edition of the prestigious Bonds, Loans & Sukuk Middle East Awards for the \$2.42bn refinancing of the Barakah Nuclear Energy Plant project.

The award underscores the critical role of ENEC and nuclear energy in accelerating the UAE's decarbonization efforts and supporting the development of a green economy – which will play a key part in driving future growth and investment. In addition to this, the participation of local banks will also support the UAE's In-Country Value Program.

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.

The role of the Barakah Plant in generating clean electricity has a cascading impact, unlocking ESG funds for local Abu Dhabi companies through the Clean Energy Certificates program, thereby enhancing their competitive advantage and ability to command a green premium for products and services.



"The UAE is a success story for harnessing the potential of nuclear energy to create a range of clean products through the Barakah Nuclear Energy Plant. Today, we support green industrialisation by providing clean electricity and enabling Clean Energy Certificates."

– H.E. Mohamed Al Hammadi
MD and CEO of ENEC



6.3. Risk Management

GRI 2021: 2-24, 2-25, GRI 2016: 201-2

ENEC's risk management system is built on robust policies, processes, and procedures that ensure accountability and comprehensive reporting. Our organization's Risk Management (ERM) framework integrates risk identification, assessment, response planning, and monitoring across all levels of the organization. This framework is supported by a governance structure that includes executive, divisional, and departmental levels, facilitating the escalation and management of risks effectively.

Our risk management systems comply with globally recognized standards and frameworks, including the:

- IRM/AIRMIC/ALARM 2002,
- COSO ERM Framework 2004,
- ISO 31000:2018, PMI guidelines, and
- WANO SOER 2015-2 recommendations

Additionally, we adhere to ADQ risk management guidelines, UAE federal regulations, and local Abu Dhabi requirements.

In 2024, the ERMC underwent significant updates to enhance its effectiveness. We introduced advanced data analytics tools to better predict and manage external risks. The committee also continues to consider emerging risks in key areas such as cybersecurity threats, supply chain disruptions, and climate-related risks, ensuring a proactive approach to risk management.

CLIMATE RELATED RISK MANAGEMENT

In 2024, ENEC conducted a severe weather risk assessment guided by ADCMC. We held two risk assessment workshops at the Barakah Plant and HQ, which included participation from emergency response and crisis management teams across the organization. These workshops helped identify lessons learned from the severe weather events of April 2024. As a result, we raised awareness of the risks, identified measures, and implemented controls for an effective response to severe weather threats. Additionally, we participated in the INPO resiliency workshops held in December 2024 with teams from the crisis management and emergency preparedness teams. Currently, we are in the process of incorporating INPO resiliency principles and measures to enhance our preparedness for climate change impacts.

KEY HIGHLIGHT AND MILESTONES

A key highlight in 2024 was the successful completion of the ERM Centralization initiative. This effort streamlined risk management processes, significantly improving efficiency and effectiveness across the organization. Senior Management, reinforcing ENEC's commitment to continuous improvement in risk management practices, recognized the initiative.



In 2024, ENEC marked significant progress in risk management through a series of strategic initiatives and achievements:

- Conducted key workshops with Crisis Management, Export Controls & Safeguards, and Nuclear Fuel Management teams
- Performed ongoing risk reviews across all risk profiles throughout the year
- Established the Risk Screening Working Group to enhance risk oversight
- Launched two new eLearning courses on TAQA: General ERM Awareness and ARM Software Familiarization
- Developed the Risk Management Maturity (RMM) model and conducted related surveys
- Held four ERMC and CNP risk update meetings, recognized by Senior Management for enhancing risk reporting and identification
- Closed all ADQ findings tied to centralization efforts
- Completed the SOER 2015-2 Effectiveness Review for Recommendations 1, 4, and 6
- Successfully finalized the ERM Centralization initiative

6.4. Quality, Efficiency and Reliability

ENEC is committed to upholding the highest safety standards through comprehensive Quality Assurance (QA) program. This QA program has been developed to ensure that the UAE’s inaugural nuclear energy plant is constructed, operated, and maintained in strict adherence to industry-leading standards, regulatory requirements, and licensing obligations.

The QA program constitutes an integral component of our organization’s Integrated Management System, encompassing not only our internal operations but also those of our contractors and sub-contractors within our supply chain. By extending the purview of our QA program to all aspects of our activities, we aim to uphold the utmost standards of safety, quality, availability, and reliability. We have invested in excess of 35,000 man-hours into conducting comprehensive quality audits across various facets of the program.

The Management System (MS) integrates processes considered essential in governing and managing ENEC’s business in accordance with applicable national and international laws, regulations, codes, standards, and best industry practices, properly considering safety, security, quality, environment, and business factors. In 2024, three main areas were impacted:

Alignment with Strategic Themes and Strategic Objective	Changes in responsibilities due to organization changes	Alignment with new international standard revisions
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In order to uphold high standards of the program, scheduled audits of the IMS, NIMS framework, and QA program are conducted. Throughout the year 2024, a total of 100 internal and external QA/MS audits and assessments were carried out on various components of the IMS/NIMS framework and the QA programs. This included 28 Internal Audits and Assessments, as well as 71 Supplier audits.



Quality Assurance

FRAMEWORKS AND REGULATIONS

The Organization’s Nuclear Quality Assurance Program (NQAP) upholds the highest standards of safety and quality during the operational phase of nuclear power plants by adhering to internationally and nationally recognized requirements:

- Complies with UAE Federal Law by Decree No.6 of 2009, ensuring alignment with national regulations for the peaceful use of nuclear energy.
- Follows stringent guidelines issued by the Federal Authority for Nuclear Regulation (FANR).
- Adopts ANSI/ANS-3.2 (2012), which defines essential managerial, administrative, and QA controls for nuclear operations.
- Implements ASME NQA-1 standards (1994 edition with 1995 addenda), incorporating Parts I and II fully, and applying Part III on a graded basis to maintain robust quality assurance practices.

CERTIFICATIONS

External audits were conducted to maintain the following ISO certifications, ensuring continued compliance with international standards and best practices:



2018 Knowledge Management System



2019 Quality Management System



2015 Environmental Management Systems



2015 Quality Management



2019 Business Continuity Management



2015 Environmental Management Systems



2015 Quality Management

6.5. 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

In accordance with Federal Decree-Law No. 2 of 2011, Article 19, ENEC, and its subsidiaries are required to develop business continuity plans aligned with the UAE National Standard for Business Continuity Management (NCEMA 7000). To ensure consistent implementation and internal reporting of BCM compliance, the BCM Department—working in collaboration with the Business Ethics and Compliance team—developed a Business Continuity Compliance Register that outlines the specific requirements of NCEMA 7000.

In addition to internal reporting against NCEMA 7000, they report on compliance with the international standard ISO 22301. The Management Systems and Program Audit (MSPA) team, with technical support from the BCM Department, develops a BCM Matrix to assess ISO 22301 compliance.

External entities such as the Abu Dhabi Emergency, Crisis, and Disasters Management Centre (ADCMC), ADQ, and the Department of Energy (DoE) receive BCM compliance reports and assessments. Reports to ADCMC are specifically based on NCEMA 7000. In 2024, the BCM Program was audited by MSPA, DoE, and an independent third party to evaluate compliance with NCEMA 7000:2021 and ISO 22301:2019.

BUSINESS CONTINUITY MANAGEMENT PROGRAM ACCOMPLISHMENTS, 2024

In 2024, the BCM Department achieved the following significant accomplishments:

In December 2024, completed a self-Assessment aligned with INPO 24-003, assessing the integration of Situational Awareness - Organizational Attributes from “Resiliency – Strengthening Defences Against External Forces” into the BCM Management Review and Annual Report

Successfully completed multiple audits in 2024, including MS & PA, ISO 22301, and DOE audits, with the DOE audit achieving a score of 97% and no observations or recommendations



Initiated the implementation of a business continuity software to serve as a database for business continuity activities and integrate with other systems like Emergency Preparedness and Crisis Management

Contributed to the organization’s efforts in preparing for the ISO resiliency standard assessment, scheduled for early 2026

In October 2024, conducted a benchmark and a comparative analysis with Abu Dhabi Agriculture and Food Safety Authority (ADAFSA) to evaluate business continuity software solutions and identify best implementation practices



07

APPENDICES

A GRI CONTENT INDEX

B ADX ESG METRICS

C STAKEHOLDER MAPPING

D ACRONYMS AND GLOSSARY



APPENDIX A : GRI CONTENT INDEX

For the Content Index – Essentials Service, GRI Services reviewed that the GRI content index has been presented in a way consistent with the requirements for reporting in accordance with the GRI Standards, and that the information in the index is clearly presented and accessible to the stakeholders.



2025

Statement of Use	ENEC has reported in accordance with the GRI standards for the period January 2024 to December 2024.
GRI 1 used	GRI 1: Foundation 2021
Applicable GRI Sector Standard(s)	Not Applicable

GRI Standard/ Other Source	Disclosure	Location Page no.	Omission
General Disclosures			
GRI 2: General Disclosures 2021	2-1 Organizational Details	17 , 18 , 20	
	2-2 Entities included in the organization's sustainability reporting	4 , 17 , 18	
	2-3 Reporting period, frequency and contact point	4	
	2-4 Restatements of information	67 , 90	
	2-5 External assurance	No External Assurance has been sought, however the ESG data and content has undergone internal validation to ensure accuracy.	
	2-6 Activities, value chain and other business relationships	17 , 18 , 20 , 92	
	2-7 Employees	78	
	2-8 Workers who are not employees		Not Applicable : ENEC currently reports on full time employees alone. Workers who are not employees are managed by subcontractor/partner companies.
	2-9 Governance structure and composition	18 , 100-103	
	2-10 Nomination and selection of the highest governance body	102	
	2-11 Chair of the highest governance body	102	
	2-12 Role of the highest governance body in overseeing the management of impacts	100	

GRI Standard/ Other Source	Disclosure	Location Page no.	Omission
GRI 2: General Disclosures 2021 (Contd.)	2-13 Delegation of responsibility for managing impacts	103	
	2-14 Role of the highest governance body in sustainability reporting	103	
	2-15 Conflicts of interest	109	
	2-16 Communication of critical concerns	104-105	
	2-17 Collective knowledge of the highest governance body	102	
	2-18 Evaluation of the performance of the highest governance body	102 , 106	
	2-19 Remuneration policies		Confidentiality Constraints: ENEC offers comprehensive range of benefits and follows a structured approach towards compensation for its employees. The data related to compensation is confidential as per internal policies.
	2-20 Process to determine remuneration		Confidentiality Constraints: ENEC offers comprehensive range of benefits and follows a structured approach towards compensation for its employees. The data related to compensation is confidential as per internal policies.
	2-21 Annual total compensation ratio		Confidentiality Constraints: ENEC offers comprehensive range of benefits and follows a structured approach towards compensation for its employees. The data related to compensation is confidential as per internal policies.
	2-22 Statement on sustainable development strategy	8-9 , 16	
	2-23 Policy commitments	25 , 43 , 65 , 104	
	2-24 Embedding policy commitments	43 , 65 , 113	
	2-25 Processes to remediate negative impacts	43 , 64 , 86 , 113	
	2-26 Mechanisms for seeking advice and raising concerns	46 , 86 , 104 , 107	
	2-27 Compliance with laws and regulations	64-65 , 109	
	2-28 Membership associations	21	
	2-29 Approach to stakeholder engagement	54-57	
	2-30 Collective bargaining agreements		Not Applicable :This disclosure is not practical and applicable to companies operating in the United Arab Emirates, where collective bargaining agreements are not recognized under UAE labor laws. Employment terms and conditions are governed by individual contracts, company policies, and the UAE Labour Law (Federal Decree-Law No. 33 of 2021), which does not provide for collective bargaining or trade union representation.

GRI Standard/ Other Source	Disclosure	Location Page no.	Omission
Material Topics			
GRI 3: Material Topics 2021	3-1 Process to determine material topics	27	
	3-2 List of material topics	30-31	
Infrastructure Security			
GRI 3: Material Topics 2021	3-3 Management of material topics	38-41	
Workforce Health and Safety			
GRI 3: Material Topics 2021	3-3 Management of material topics	43	
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	43	
	403-2 Hazard identification, risk assessment, and incident investigation	43, 46	
	403-3 Occupational health services	43, 44	
	403-4 Worker participation, consultation, and communication on occupational health and safety	44	
	403-5 Worker training on occupational health and safety	44-45	
	403-6 Promotion of worker health	44-45	
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	44-45	
	403-8 Workers covered by an occupational health and safety management system	43	
	403-9 Work-related injuries	47, 48	
	403-10 Work-related ill health	47	
Prevention from Nuclear Radiation - Workers and Public			
GRI 3: Material Topics 2021	3-3 Management of material topics	92-94	
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	92-94	
	308-2 Negative environmental impacts in the supply chain and actions taken	92-94	
Radioactive Waste Management			
GRI 3: Material Topics 2021	3-3 Management of material topics	42	

GRI Standard/ Other Source	Disclosure	Location Page no.	Omission
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	43	
	403-2 Hazard identification, risk assessment, and incident investigation	43, 46	
	403-3 Occupational health services	43, 44	
	403-4 Worker participation, consultation, and communication on occupational health and safety	44	
	403-5 Worker training on occupational health and safety	44-45	
	403-6 Promotion of worker health	44-45	
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	44-45	
	403-8 Workers covered by an occupational health and safety management system	43	
	403-9 Work-related injuries	47, 48	
	403-10 Work-related ill health	47	
GRI 306: Waste 2020	306-1 Waste generation and significant waste related impacts	71	
	306-2 Management of significant waste related impacts	71	
	306-3 Waste generated	71	
	306-4 Waste diverted from disposal	71	
	306-5 Waste directed to disposal	71	
Prevention from nuclear radiation -workers and public			
GRI 3: Material Topics 2021	3-3 Management of material topics	38, 43, 51	
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	43	
	403-3 Occupational health services	43, 44	
	403-4 Worker participation, consultation, and communication on occupational health and safety	44	
	403-5 Worker training on occupational health and safety	44-45	
	403-6 Promotion of worker health	44-45	
	403-8 Workers covered by an occupational health and safety management system	43	

GRI Standard/ Other Source	Disclosure	Location Page no.	Omission
Plant Operations			
GRI 3: Material Topics 2021	3-3 Management of material topics	20, 64-65	
GRI 301: Materials 2016	301-1 Materials used by weight or volume	69	
GRI 302: Energy 2016	302-1 Energy consumption within the Organisation	68	
	302-3 Energy intensity	68	
	302-4 Reduction of energy consumption	68	
Data Protection Library and Strong Firewall			
GRI 3: Material Topics 2021	3-3 Management of material topics	39, 40	
GRI 418: Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data		Confidentiality Constraints : This information is considered confidential and sensitive to ENEC operations. ENEC protects its operations and stakeholders as per UAE Data Protection Law No.45, FANR Regulations and any other relevant local and global laws, regulations, and standards.`
Research and Development			
GRI 3: Material Topics 2021	3-3 Management of material topics	58-59, 60-61	
State-of-the-art Training and Education for Employees			
GRI 3: Material Topics 2021	3-3 Management of material topics	49-53	
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	49	
	404-2 Programs for upgrading employee skills and transition assistance programs	50-53	
	404-3 Percentage of employees receiving regular performance and career development reviews		Information Unavailable: ENEC maintains a structured talent management framework. ENEC will assess disclosure of this metric in future sustainability reports.
Employee Turnover Rate			
GRI 3: Material Topics 2021	3-3 Management of material topics	76, 80-81	
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	80-81	
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees		Not Applicable : ENEC currently reports on full time employees alone. Workers who are not employees are managed by subcontractor/partner companies.
	401-3 Parental leave		Information Unavailable: Parental leave support is part of ENEC employee welfare policies. ENEC will assess the disclosure of this metric in the future sustainability reports.

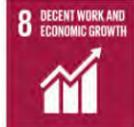
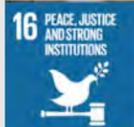
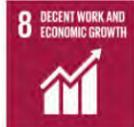
GRI Standard/ Other Source	Disclosure	Location Page no.	Omission
Non-discrimination and Equal Opportunity			
GRI 3: Material Topics 2021	3-3 Management of material topics	76-77	
GRI 406: Non - discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	77	
Diversity and Equal Opportunity			
GRI 3: Material Topics 2021	3-3 Management of material topics	76-79	
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	78-79	
	405-2 Ratio of basic salary and remuneration of women to men		Confidentiality Constraints: ENEC offers comprehensive range of benefits and follows a structured approach towards compensation for its employees. The data related to compensation is confidential as per internal policies.
Local Communities			
GRI 3: Material Topics 2021	3-3 Management of material topics	88-89	
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	88-89	
	413-2 Operations with significant actual and potential negative impacts on local communities	88-89	
Climate Risk Mitigation			
GRI 3: Material Topics 2021	3-3 Management of material topics	64-65, 113	
Environmental Oversight			
GRI 3: Material Topics 2021	3-3 Management of material topics	72	
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	72	
	304-2 Significant impacts of activities, products and services on biodiversity	72	
	304-3 Habitats protected or restored	72	
Environmental Compliance			
GRI 3: Material Topics 2021	3-3 Management of material topics	64	
GRI 2: General Disclosures 2021	2-27 Compliance with laws and regulations	64-65	

GRI Standard/ Other Source	Disclosure	Location Page no.	Omission
Emissions			
GRI 3: Material Topics 2021	3-3 Management of material topics	64-67	
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	66-67	
	305-2 Energy indirect (Scope 2) GHG emissions	66-67	
	305-3 Other indirect (Scope 3) GHG emissions	66-67	
	305-4 GHG emissions intensity	67	
	305-5 Reduction of GHG emissions	66	
Supply Chain Assessment on ESG			
GRI 3: Material Topics 2021	3-3 Management of material topics	94	
GRI 2: General Disclosures 2021	2-6 Activities, value chain and other business relationships	92-95	
Procurement Practices			
GRI 3: Material Topics 2021	3-3 Management of material topics	92-95	
GRI 204: Procurement Practices 2016	204-1 Proportion of spending on local suppliers	95	
Market Presence, Anti-Corruption and Anti-Competitive Behavior			
GRI 3: Material Topics 2021	3-3 Management of material topics	17-20, 100, 107	
GRI 202: Market Presence 2016	202-2 Proportion of senior management hired from the local community	90	
GRI 205: Anti-Corruption 2016	205-1 Operations assessed for risks related to corruption	107-108	
	205-2 Communication and training about anti-corruption policies and procedures	107-108	
GRI 206: Anti-competitive Behavior 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practice	107	
Economic Performance			
GRI 3: Material Topics 2021	3-3 Management of material topics	110-111	

GRI Standard/ Other Source	Disclosure	Location Page no.	Omission
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	111	
	201-2 Financial implications and other risks and opportunities due to climate change	110-111 , 113	
	201-3 Defined benefit plan obligations and other retirement plans		Information Unavailable: ENEC offers end of service benefits as per the government rules and policies for UAE nationals and expatriates. ENEC will assess the disclosure of this metric in future sustainability reports.
	201-4 Financial assistance received from government	110	
Energy			
GRI 3: Material Topics 2021	3-3 Management of material topics	64 , 68	
GRI 302: Energy 2016	302-1 Energy consumption within the Organisation	68	
	302-3 Energy intensity	68	
	302-4 Reduction of energy consumption	68	
Addressing the grievances for Workforce and Contractors			
GRI 3: Material Topics 2021	3-3 Management of material topics	46 , 86-87	
Socio-Economic Compliance			
GRI 3: Material Topics 2021	3-3 Management of material topics	88-89	
Indirect Economic Impact			
GRI 3: Material Topics 2021	3-3 Management of material topics	96-97	
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	96-97	
	203-2 Significant indirect economic impacts	96-97	
Water and Effluents			
GRI 3: Material Topics 2021	3-3 Management of material topics	64-65 , 70	
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	70	
	303-2 Management of water discharge related impacts	70	

APPENDIX B : GCC ESG METRICS

Category	ADX Metric	Page No./or Notes	GRI Topic Standards	Corresponding UN SDG
GOVERNANCE	G1. Board Diversity	102	GRI 405: Diversity and Equal Opportunity 2016	
	G2. Board Independence	102	-	-
	G3. Incentivized Pay	-	-	-
	G4. Supplier Code of Conduct	92-93, 107	-	-
	G5. Ethics & Prevention of Corruption	107-108	-	
	G6. Data Privacy	39	-	-
	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	80-81	GRI 401: Employment 2016	
	S4. Gender Diversity	78-79	GRI 405: Diversity and Equal Opportunity 2016	
	S5. Temporary Worker Ratio	-	-	-
	S6. Non-Discrimination	77	GRI 406: Non-discrimination 2016	
	S7. Injury Rate	47, 48	GRI 403: Occupational Health and Safety 2018	
	S8. Global Health & Safety	43	GRI 3: Material Topics 2021	-
	S9. Child & Forced Labor	-	-	-
	S10. Human Rights	-	-	-
	S11. Nationalization	90	GRI 413: Local Communities 2016	
	S12. Community Investment	88-89	GRI 413: Local Communities 2016	-

Category	ADX Metric	Page No./or Notes	GRI Topic Standards	Corresponding UN SDG
ENVIRONMENT	E1. GHG Emissions	66	GRI 305: Emissions 2016	
	E2. Emissions Intensity	67		
	E3. Energy Usage	68	GRI 302: Energy 2016	
	E4. Energy Intensity	68		
	E5. Energy Mix	68	GRI 302: Energy 2016	
	E6. Water Usage	70	GRI 303: Water and Effluents 2018	
	E7. Environmental Operations	64-65	GRI 3: Material Topics 2021	-
	E8. Management Environmental Oversight	64-65	GRI 2: General Disclosures 2021	-
	E9. Board Environmental Oversight	103	GRI 2: General Disclosures 2021	-
	E10. Climate Risk Mitigation	-		-

APPENDIX C : STAKEHOLDER MAPPING

ENEC STAKEHOLDER GROUPS			
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	<ul style="list-style-type: none"> 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.	<ul style="list-style-type: none"> 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 and regional events
Media	Local, regional, and international media	On-going access to timely, comprehensive information about the project	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> -
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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Awareness sessions Internal engagement programs Corporate Social Responsibilities (CSRs)
Administration, Infrastructure and Utility Organizations	Energy, electricity, and transmission companies	Obtaining Non-Objection Certificate Infrastructure works, essential urban planning activities, power supply	<ul style="list-style-type: none"> Meetings Benchmarking Non-Objection Certificate Regular meetings and workshops Regular reports and program updates

APPENDIX D : ACRONYMS AND GLOSSARY

ACRONYMS

ADAA	Abu Dhabi Accountability Authority
ADCMC	Abu Dhabi Emergency, Crisis, and Disasters Management Centre
ADQ	Abu Dhabi Development Holding Company
ADSG	Abu Dhabi Sustainability Group
ADOSH	Abu Dhabi Centre for Occupational Health and Safety System
ADWEC	Abu Dhabi Water and Electricity Company
ADX	Abu Dhabi Securities Exchange
AFMP	Anti-Fraud and Misconduct Program
ALARP	As low as reasonably practicable
APR	Advanced Power Reactor
AR	Advanced Reactor
ARCC	Audit, Risk and Compliance Committee
ASME	American Society of Mechanical Engineers
ATSITE	Accountability, Teamwork, Safety, Integrity, Trust, and Excellence
BCM	Business Continuity Management
BID	Business and Industrial Development
BNEP/ Barakah Plant	Barakah Nuclear Energy Plant
BYC	Barakah Youth Council
CAF	Combined Assurance Framework
CAPEX	Capital Expenditure
CEMP	Construction Environmental Management Plan
CEO	Chief Executive Officer
CIA	Confidentiality, Integrity, and Accountability
CICPA	Critical Infrastructure and Coastal Protection Authority
CNP	Committee on Nuclear Power
CO ₂	Carbon Dioxide
COIT	Certified Operator Initial Training
COP	Conference of the Parties
COSO	Committee of Sponsoring Organizations
CPO	Chief Program Office
CR	Condition Reporting
CSG	Corporate Strategy and Governance
CSIRT	Cyber Security Incident Response Team
DAW	Dry Active Waste
DED	Abu Dhabi Department of Economic Development
DEP	Drill/Exercise Program
DOA	Delegation of Authority
DoE	Department of Energy
DoF	Department of Finance

ACRONYMS

DoH	Department of Health
EAC	Energy Attribute Certificates
EAD	Environment Agency of Abu Dhabi
ECC	Enterprise Compliance Council
ECP	Employee Concerns Program
ECRB	Enterprise Compliance Review Board
EDMP	Enterprise Data Management Program
E-Fusion	Event organized in collaboration between ENEC, Business France, and GIFEN
EMEG	Emirates Marine Environmental Group
EMS	Environmental Management System
ENEC	Emirates Nuclear Energy Company
ENTC	Emirates Nuclear Technology Center
EP	Emergency Preparedness
ERM	Enterprise Risk Management
ERMC	Enterprise Risk Management Committee
ERO	Emergency Response Organization
ESG	Environmental, Social and Corporate Governance
ESWG	External Stakeholders Working Group
EWEC	Emirates Water and Electricity Company
FANR	Federal Authority for Nuclear Regulation
GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GIFEN	Groupement des Industriels Français de l'Énergie Nucléaire
GIMI	Global Innovation Management Institute
GJ	Gigajoules
GOSP	Governance, Oversight, Support and Performance
GRI	Global Reporting Initiative
HCC	Human Capital Committee
HDNT	Higher Diploma of Nuclear Technology
HFE	Human Factors Engineering
HIRD	Harassment, intimidation, retaliation, or discrimination
HQ	Headquarters
HSE	Health, Safety and Environment
HSEMS	Health, Safety, Environment Management System
HSES	Health, Safety, Environment and Sustainability
IAEA	International Atomic Energy Agency
ICT	Information and Communications Technology
IT	Information Technology
ICV	In-Country Value
IDPs	Individual Development Plans

ACRONYMS

IEA	International Energy Agency
IIA	Institute of Internal Auditors
IMS	Integrated Management System
INPO	Institute of Nuclear Power Operations
ISO	International Organization for Standardization
JV	Joint Venture
KEPCO	Korea Electric Power Corporation
KEXIM	Export-Import Bank of Korea
KFED	Khalifa Fund for Enterprise Development
KNA	Korea Nuclear Association
KPI	Key Performance Indicator
KU	Khalifa University of Science and Technology
kWh	Kilowatt hour
LLW	Low-level waste
LMS Taqa	Learning Management System Taqa
LTIFR	Lost Time Injury Frequency Rate
MCR	Main Control Room
MD & CEO	Managing Director & Chief Operating Officer
MEPRA	The Middle East Public Relations Association
MNCs	Multinational Companies
MOIAT	Ministry of Industry and Advanced Technology
MoU	Memorandum of Understanding
MS	Management Systems
MTCO ₂ eq	Million Tons Carbon Dioxide Equivalent
MW	Megawatts
NDC	Nationally Determined Contribution
NCEMA	National Emergency Crisis and Disasters Management Authority
NDE	Non-Destructive Examination
NGC	National Guard Command
NGOs	Non-Government Organizations
NOSS	National Occupational Skill Standards
NQA	National Qualification Authority
NQA-1	ASME Nuclear Quality Assurance
NSRB	Nuclear Safety Review Board
ODCM	Offsite Dose Calculation Manual
OEMP	Operational Environmental Management Plan
O&M	Operations & Maintenance
OLA	Operating License Approval
OT	Operational Technology
OHRA	Occupational Health Risk Assessment
OSH	Occupational Safety and Health

ACRONYMS

OHSMS	Occupational Health and Safety Management System
PI	Principal Investigator
PET	Polyethylene Terephthalate
PJSC	Public Joint Stock Company
PPA	Power Purchase Agreement
PPP	Physical Protection Plan
PPP-O	Physical Protection Plan for Operation
PSC	Procurement and Supply Chain
Q	Quarter
Q+NOSS	National Principal Qualifications
QA	Quality Assurance
RA	Risk Assessment
R&D	Research & Development
REMP	Radiological Environmental Monitoring Program
RO	Reactor Operator
RTP	Registered Training Provider
SAMG	Severe Accident Management Guideline
SAT	Systematic Approach to Training
SCBA	Self-Contained Breathing Apparatus
SCWE	Safety Conscious Work Environment
SIs	Strategic Indicators
SMAT	Sustainability Maturity Assessment Tool
SMEs	Small and Medium-sized Enterprises
SMRs	Small Modular Reactors
SRO	Senior Reactor Operator
Tadweer	The Abu Dhabi Waste Management Centre
TAMM	Abu Dhabi Government Service
TFA	Technical Focus Area
TNA	The National Aquarium
TRCFR	Total Recordable Case Frequency Rate
TW	Terawatt
UAE	United Arab Emirates
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
UN SDGs	United Nations Sustainable Development Goals
US	United States
USD	United States Dollar
VETAC	Vocational Education and Training Awards Council
VQM	Vendor Qualification Management
WANO	World Association of Nuclear Operations
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.
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.
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.
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 from a source that is not depleted when used.
Stakeholders	A party that affects or can be affected by the actions of a business.
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.



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