مؤسسة الإمارات للطاقة النووية
Emirates Nuclear Energy Corporation

شركة براكة الأولى ش.م.خ
Barakah One Company PJSC

شركة نواة للطاقة
Nawah Energy Company

2020 **Sustainability** Report

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ABOUT THIS REPORT

About this Report

This Report[1] aims to provide stakeholders with a comprehensive and transparent update on the Emirates Nuclear Energy Corporation's (ENEC) sustainability performance for the year 2020. The Report covers the activities of ENEC including its subsidiaries Nawah Energy Company and Barakah One Company, as well as ENEC's Joint Venture (JV) partner and Prime Contractor for the Barakah Nuclear Energy Plant (Barakah NPP) the Korea Electric Power Corporation (KEPCO), and other subcontractor activities, where relevant. Full details on the Report's scope and boundaries can be found in Appendix A, as well as in data tables and graphs throughout the Report.

Reporting Standards

This Report has been prepared in accordance with the GRI Standards: Core option. It has successfully completed the GRI's Materiality Disclosure Service. To view the GRI content index, please refer to Appendix C.

Reporting Period

This report covers economic, social, and environmental performance and activities from 1 January 2020 to 31 December 2020.

For questions or comments regarding this Report and ENEC's sustainability program, please visit www.enec.gov.ae or contact HSESTeam@enec.gov.ae

Disclaimer:

The report contains forward-looking statements, reflecting management's reasonable and current expectations. No assurance can be given that such expectations will prove correct and 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.

GRI 2016: 102-45

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MESSAGE FROM THE CEO

Message from the CEO

Since our establishment in 2009, ENEC has continued to grow and develop from an energy start-up with a handful of employees into a world-class nuclear energy organization with a workforce of more than 3,000 people. Our large and growing team shares one clear focus – to provide abundant, clean, and reliable electricity from nuclear energy to the United Arab Emirates (UAE).

The UAE has a legacy of sustainability, pioneered by our nation's founding father, the late Sheikh Zayed bin Sultan Al Nahyan. His vision for the UAE embodied the sustainable development of our economy, our society, and our environment. Energy is essential to drive growth in a rapidly growing economy like ours. Nuclear energy provides the UAE with the opportunity to develop a clean, reliable, and efficient source of electricity, while diversifying our energy portfolio and helping to ensure a secure and sustainable energy future.

It is ENEC's mission to deliver this new source of energy to the UAE. Once fully operational, the Barakah plant will provide around a quarter of the Nation's electricity needs, while in parallel preventing the release of 21 million tons of Carbon Dioxide (CO2) every year.

Construction of the Barakah Plant commenced in 2012 and continues to progress steadily. Every employee and contractor onsite has demonstrated commitment to maintaining the highest standards of quality and safety. In 2015, Barakah became the world's largest nuclear energy construction site with four identical reactors being built simultaneously in one location. Today, the project is successfully transitioning from construction to operations, marking a significant milestone not only in the delivery of the UAE Peaceful Nuclear Energy Program, but also for the UAE and Arab World, as the UAE becomes a peaceful operating Nation.

In 2020, the global COVID-19 pandemic caused global disruptions to business-as-usual all over the world. Using our business continuity plans and processes, ENEC and its subsidiaries were able to ensure safety and avoid disruption in operations. The situation has since then strengthened our ability to implement and support appropriate responses to unplanned events.

As our organization continues to grow, we remain committed to the evolution and development of our sustainability program, to ensure we continue to meet and respond to the needs of the community, the environment, and the nation.

H.E. Eng. Mohamed Al Hammadi
Chief Executive Officer (CEO)

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ABOUT US

About US

ENEC was established by decree in December 2009 by His Highness Sheikh Khalifa bin Zayed Al Nahyan, President of the United Arab Emirates (UAE), to implement a peaceful nuclear energy program in the UAE in order to address the country's growing demand for electricity while reducing its carbon footprint and diversifying its energy portfolio. ENEC is wholly owned by the Government of Abu Dhabi with the mandate to develop, build, finance, operate, maintain, manage, and own nuclear reactors for the purposes of electricity generation and potentially for desalination.

Under its mandate, ENEC is constructing the UAE's first nuclear energy plant at Barakah, in the Al Dhafra Region of Abu Dhabi – the Barakah Nuclear Energy Plant (Barakah NPP). The Barakah NPP consists of four third-generation Advanced Power Reactor (APR)-1400 nuclear energy generating units, and their associated facilities, with a combined capacity of approximately 5,600 Megawatts (MW), which is expected to meet up to 25% of the UAE's electricity demand once fully operational.

Nuclear Energy Technology
https://www.enec.gov.ae/barakah-plant/technology/

Our Vision

Powering the growth of the UAE.

Our Mission

Ensure a safe and sustainable peaceful nuclear energy program.

Our Values

Our mission and vision are guided by our commitment to our six corporate values of Accountability, Teamwork, Safety, Integrity, Trust and Excellence (AT SITE). All our meetings start with a safety moment and conclude with an AT SITE moment based on our corporate values.

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

Individuals 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.

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.

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.

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.

3.1 Timeline and Group Structure

مؤسسة الإمارات للطاقة النووية
Emirates Nuclear Energy Corporation

ENEC

Following inception in 2009, ENEC was mandated by the UAE Government to deliver the UAE Peaceful Nuclear Energy Program and develop the cornerstone of the UAE Program; the Barakah NPP – the first nuclear new build project in the Arab World.

In late 2009, KEPCO, South Korea's single largest public power electric utility, was awarded the Prime Contract for the design, construction, and operation of the four reactors at the Barakah NPP. The contract also covers extensive training, human resource development and education programs as the UAE builds the capacity to staff a thriving nuclear energy industry. KEPCO was chosen following an extensive year-long evaluation conducted by a team of 75 international experts who evaluated a variety of factors, including safety, deliverability, and commitment to human resource development.

The Barakah plant is more than just an energy plant; it is an engine of growth for the Nation. Through the development of the Barakah NPP, we are supporting the diversification of the UAE's energy portfolio by providing clean electricity to meet the country's domestic energy demand, creating high value careers for UAE Nationals, and developing a new high-tech local nuclear industry. The Barakah NPP supports the Nation's efforts towards sustainable economic growth and environmental protection.

In October 2016, ENEC signed a Joint Venture agreement with KEPCO, launching Nawah and Barakah One Company. Through the JV, KEPCO became a minority shareholder of Nawah and Barakah One Company, holding 18% in each subsidiary, while ENEC maintains a majority share of 82% in the two subsidiaries.

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

شـــركـة نـواة للـطـاقـة
Nawah Energy Company

Nawah Energy Company

Established in 2016, Nawah is mandated to operate and maintain Units 1 to 4 at the Barakah NPP. As the UAE's nuclear operator, Nawah will harness the power of nuclear energy to provide a safe, reliable, clean, and sustainable supply of low-carbon electricity to contribute to the UAE's social and economic development and enhance the quality of life for generations to come.

Nawah Energy Company:
www.nawah.ae/en/

شـركـة براكـــة الأولـى ش.م.خ
Barakah One Company PJSC

Barakah One Company

Barakah One Company was established in 2016 and is responsible for managing the commercial interests of the Barakah NPP, securing project financing from institutional and commercial lenders, and receiving funds for the electricity generated from Units 1 to 4 in Barakah. In November 2016, Barakah One Company signed the power purchase agreement with the Emirates Water and Electricity Company (EWEC; formerly the Abu Dhabi Water and Electricity Company) for the purchase of electricity generated at the Barakah NPP. The agreement establishes the contractual framework between the two entities for nuclear-generated clean, efficient, and reliable electricity.

3.2 ENEC Strategy 2020-2024

The ENEC Strategy 2020-2024 aims to deliver the UAE Peaceful Nuclear Energy Program in a strategic, systematic manner.

Strategy:

Deliver a Safe, Reliable and Efficient Operations of all four Barakah Units for Commercial and Long-Term Viability.

Strategic Themes have been developed that encapsulate leadership consensus on four key priorities of focus:

1. **Ensure Safe Delivery of the Barakah NPP** – Efficient generation of safe, reliable, and clean energy from all Units by 2024 and deliver to the UAE power grid
2. **Security of Supply** – Fit-for-purpose value chain for UAE nuclear sector that secures timely, cost efficient and high-quality products and services
3. **Our People** – Timely acquisition, development and retention of nuclear professionals whilst supporting the Emiratization program
4. **Our Operating Culture** – Embed a unique operating culture that enables a high performing multi-cultural team, living our AT SITE values

ENEC Strategy Development Framework

The four key strategic priorities of the ENEC Strategy help position the UAE Peaceful Nuclear Energy Program among the most advanced peaceful nuclear energy programs in the world. This is carried out by establishing and managing the adoption of safe practices, state-of-the-art technologies, and the integration of guidelines from the International Atomic Energy Agency (IAEA), Institute of Nuclear Power Operations (INPO) and Word Association of Nuclear Operations (WANO).

The ENEC Strategy Development Framework was developed to promote a unified terminology and direction across ENEC and its subsidiaries. It aims to embed an integrated approach that creates a clear line of sight towards the achievement of the vision, mission, and values. The framework ensures that ENEC and its subsidiaries follow a common structure, approach and procedure when developing, reviewing, executing, and updating their strategies on a periodic basis. This includes aligning to business plans and budgeting to aid ENEC towards achieving the Strategy.

ENEC Performance Management Framework

The ENEC Strategic Performance Dashboard presents the results of the key Strategic Indicators (SIs) that measure ENEC and its subsidiaries' performance on an annual basis. The dashboard consists of three main pillars – Safety and Quality, Schedule, and Cost. It measures the most important aspects of performance across ENEC and its subsidiaries, and their involvement and contribution to the success of the UAE Peaceful Nuclear Energy Program.

To realize such performance, ENEC has embedded a comprehensive and robust performance management framework, which consists of the following:

- Translate the strategy into tangible performance indicators to provide a clear 'line of sight' between organizational performance and individual performance requirements.
- Clear governance and links overall to the broader strategic design and planning process.
- Cope with changing priorities and providing sufficient consistency and accountability having a strong focus on performance and sound processes in providing clear accountability for setting and achieving performance targets.
- Continuous monitoring of the adequacy of metrics and thresholds/targets.

Despite the unique challenges presented by the global COVID-19 pandemic and the resulting unforeseen business disruptions, ENEC's Strategic Performance results have demonstrated excellent performance in 2020, meeting and exceeding targets on several indicators by a substantial margin.

UAE Nuclear Energy Program

In March 2020, following the successful completion of fuel assembly loading into Unit 1, the UAE became a peaceful nuclear energy operating nation. The Nation also becomes the first country in the Arab World to achieve this status, joining a limited group of countries worldwide that have successfully developed the intellectual and infrastructural capacity to use nuclear energy to generate safe, clean, and reliable baseload electricity. In June 2020, Unit 2 also completed construction. Units 3 and 4 are progressing, completing several phases of the construction as well as crucial tests.

Unit	% Completion 2020		2020 Progress Update
	Planned	Actual	
Unit 1	Operational		• Received the Operating License from the Federal Authority for Nuclear Regulation (FANR) • Reactor Start-up (July) • Grid Connection (August) • Achieved 100% power (December)
Unit 2	Construction Completed		• Completed construction and commissioning activities, handing the Unit over to Nawah for operational readiness
Unit 3	93%	93%	• Construction and commissioning in progress
Unit 4	82%	87%	• Construction and commissioning in progress

Construction Updates:
https://www.enec.gov.ae/barakah-plant/construction-program/

Operating and Regulatory Licenses

We are working to ensure the highest standards of quality and transparency are implemented throughout the construction and operation of the Barakah NPP. All our activities are conducted under the strict regulation of FANR with oversight from the Nuclear Safety Review Board (NSRB). In addition, senior nuclear experts from the IAEA and the WANO continue to conduct regulatory and voluntary independent assessments, respectively, of the robustness of the UAE Peaceful Nuclear Energy Program.

In March 2015, ENEC submitted the Operating License Application (OLA) for Units 1 and 2 on behalf of Nawah. In March 2017, Nawah successfully submitted the OLA for Units 3 and 4. In February 2020, Nawah officially obtained the Operating License for Unit 1 from FANR, following an extensive safety-led assessment and inspection process to ensure Unit 1 and the certified teams that will operate and maintain the plant meet all regulatory requirements.

Regulatory filings
https://www.enec.gov.ae/regulation/regulation-and-review/regulatory-licensing/

3.3 Governance and Management

Robust governance and management structures are essential to the management of our risks and to maintain accountability. Led by the ENEC Board of Directors, we continue to strive for excellence in governance by aligning our processes, procedures, and performance with the requirements of FANR, WANO and INPO.

Excellence in Governance:
www.enec.gov.ae/about-us/leadership-and-governance/governance/

Board of Directors

The Board of Directors of ENEC is the supreme authority of the corporation entrusted by Law No. 21 of 2009, with full authority to govern and oversee ENEC's activities, and otherwise has the powers, objectives and responsibilities set forth in Law No. 21 of 2009.

Board members are appointed based on their expertise including their understanding of the unique safety and security responsibilities that come with being a Board Member of ENEC. The Board is a collegial body, but members can act critically and independently of one another, when necessary, especially when such independence serves to enhance nuclear safety, security, and reliability.

ENEC Board Members are required to partake in an induction program and receive necessary training in basic nuclear power, safety, and more.

The ENEC Board Members are subjected to performance evaluation measures at the end of their respective terms by the ENEC Board Chairman. The performance results are considered for renewal or appointment for a further term, and shared with the Executive Council, if requested. In March 2020, following the Executive Council Resolution No. 73 of 2019, Charles G. Pardee was appointed as the tenth Board Member. In terms of nationality, the board constitutes of 70% UAE Nationals and 30% Expatriates.

ENEC Board of Directors
www.enec.gov.ae/about-us/leadership-and-governance/board-of-directors/

His Excellency
Khaldoon Khalifa Al Mubarak
Chairman, Board of Directors

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

Khaled Abdulla Al Qubaisi
Member, Board of Directors

Saeed Fadhel Al Mazrouei
Member, Board of Directors

Mohammed Hamdan Al Falahi
Member, Board of Directors

Mohamed Hassan Al Suwaidi
Member, Board of Directors

Eng. Awaidha Murshed Al Marar
Member, Board of Directors

David V. Scott
Member, Board of Directors

Michael J. Wallace
Member, Board of Directors

Charles G. Pardee
Member, Board of Directors

Board Committees

The Board has three standing committees that oversee the corporation's activities and provide clear direction. Each committee has a written charter detailing its responsibilities, which is approved by the entire Board.

Board committee	Description	Sustainability Issues Addressed
Committee on Nuclear Power (CNP)	CNP oversees and advises the Board of Directors on issues of nuclear safety, security, reliability, regulation, and environmental matters that relate to the construction and eventual operation of ENEC's nuclear units. The CNP consists of three members of the Board along with external members who have extensive prior nuclear industry experience.	• Health and safety • Security • Quality and reliability • Environmental management
Audit, Risk and Compliance Committee (ARCC)	ARCC assists the Board in the discharge of its responsibilities overseeing Audit, Governance, Risk Management and Compliance functions. The ARCC is composed of four members and is chaired by the Board Member Mohammed Hamdan Al Falahi. One member of the committee is independent from the ENEC Board of Directors (not an ENEC Board of Directors member).	• Health and safety • Governance and accountability • Risk management • Ethics • Regulatory compliance
Human Capital Committee (HCC)	HCC, comprised of at least two Board members, reviews and advises the Board of Directors on issues regarding human resources and staffing, compensation and senior executive succession planning.	• Resourcing and succession • Emiratization • Training and development

Auditing and Accountability

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

- Statutory Audit: conducted by the Abu Dhabi Accountability Authority (ADAA), which audits the activities of our internal auditors to ensure compliance.
- Internal Audit: regular reviews and audits of our financial and non-financial systems, processes, and results.
- External Audit: carried out annually by an independent third-party auditor, with the findings reported directly to the ENEC Board of Directors.
- Management Systems (MS) Internal and External Audits: carried out annually in accordance with management system requirements by MS team internally and appointed third party externally.

Internal Audit

Our internal audit function is well established and acts as an assurance provider to the Board of Directors, reporting directly to the Board via the ARCC. The function conducts annual risk assessments covering all activities including projects, schedule, performance, finance, Information and Communications Technology (ICT), human resources and any audit-related issues that arise on an annual basis. The ENEC internal audit function adheres to the standards of the Institute of Internal Auditors (IIA) and the requirements set by ADAA and is subject to periodic assessments by ADAA.

ENEC launched the Combined Assurance Framework (CAF) to provide a means for the internal audit function and other assurance providers to work together and align their assurance processes. As a result, the audit committee and senior management are given insights on governance, risk management, and control arrangement from a comprehensive holistic perspective. The CAF performance report for 2020 captured 25 “high” and “very high” risks across the ENEC and its subsidiaries. These risks have been assessed by the risk management team with clear guidelines and approaches for handling such situations, should they occur. As part of the 2020 Audit Plan, all risks identified including mitigation plans were assessed to ensure the appropriate implementation of measures to eliminate and minimize the occurrence of negative potential impacts that may occur.

Business Principles, Ethics and Compliance

We strive to continuously uphold the highest standards of ethical conduct and integrity, to ensure the safety and long-term success of the UAE Peaceful Nuclear Energy Program.

To achieve this, we established and implemented a robust set of standards, principles, and model behaviors, with the goal of creating and sustaining a corporate environment in which the affairs of ENEC are conducted in a fair and transparent manner, free from any acts of fraud or misconduct. We require all employees, contractors, business partners and representatives to act in accordance with the highest standards of personal and professional integrity in all aspects of their activities, and to comply with all applicable laws, rules, regulations, and ENEC standards, policies, and procedures.

Compliance

Across the ENEC and its subsidiaries, we adopt a zero-tolerance approach to all forms of fraud and misconduct. We strictly follow the legal and regulatory obligations and respect and comply with all obligations including agreements, commitments, standards and codes of practice.

There are various, policies, programs, processes, procedures and controls existing across ENEC and its subsidiaries to combat various forms of fraud that includes, bribery and corruption. Within ENEC and its subsidiaries, there are two dedicated organizations: the ENEC Business Ethics and Compliance Department, a dedicated Department to create, establish and implement required policies, programs, processes and procedures for an effective legal and regulatory program and ethical compliance program; and the Audit and investigation Department established to detect fraud and respond to reported cases of fraud and misconduct.

The implemented appropriate policies, programs and procedures ensure a robust compliance program, upholding the highest standards of ethics and compliance. In 2020, we received no monetary or non-monetary fines or sanctions for non-compliance.

Whistleblowing

ENEC is committed to creating and sustaining a corporate environment by adopting the highest standards of professionalism, honesty, and integrity, to ensure that our business is conducted in a fair and transparent manner and that it is free from any acts of fraud or misconduct.

The Anti-Fraud and Misconduct Procedure (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. It comprises of four global reporting channels for reporting suspected incidents of fraud, fraudulent activity, and misconduct. Whistle-blowers can choose to stay anonymous through reporting via the following channels:

i. Toll free hotline available in multiple languages 24/7 across several countries.
ii. Dedicated email address for reporting concerns.
iii. Dedicated Web Portal – Internal and External; and
iv. Provision to submit verbal/ written complaints using AFMP Reporting Forms.

The AFMP highlights the significance associated with protection of whistle-blowers. It condemns and addresses any acts of retaliation against whistle-blowers for reporting complaints in good faith.

In 2020, 14 awareness sessions and 19 on-boarding sessions were conducted across ENEC and its subsidiaries to create AFMP awareness and to maintain honesty and ethical behavior in ENEC's culture and environment.

Incidents reported in 2020 through any one of the above reporting channels are being investigated, reported, and closed in accordance with AFMP Procedure.

Online Whistleblowing Mechanism:
www.enec.gov.ae/about-us/leadership-and-governance/reporting/

Risk Management Approach

The ENEC Risk Management (ERM) is designed to ensure that risks are proactively identified, assessed, and managed in a prioritized, consistent, effective, and efficient manner at all levels to support the safe, effective, and efficient delivery of the UAE Peaceful Nuclear Energy Program.

To ensure we adhere to industry best practices in risk management, our ERM Program is aligned with the International Organization for Standardization (ISO) 31000 Risk Management principles, the Committee of Sponsoring Organizations (COSO) ERM standards and frameworks as well as the FANR and the ADAA requirements.

Our ERM policy and procedure documents have been formalized through ENEC's management system to facilitate and govern ERM's integration with the business. The ERM Program covers elements of environment and sustainability, through a threat and opportunity assessment with clearly defined environmental assessment for land-based and aquatic ecosystems, as well as atmospheric and waste emissions. All environmental-related risks are highlighted in an Environmental Social Action Plan status update report, which is shared with financial lenders to demonstrate ENEC's commitment to environment and sustainability.

ENEC is currently building and is committed to continue developing a remarkable risk-management capability that compares well with its industry peers and beyond, both regionally and internationally.

Risk Management:
www.enec.gov.ae/about-us/leadership-and-governance/risk-management/

Business Excellence

Since the inception of ENEC, the Board of Directors have focused on achieving the highest level of business excellence. To meet this goal, we established a Corporate Excellence program, which integrates the highest standards of business excellence throughout the organization. The program fosters success by creating a transparent, friendly environment for employees, maintaining up to date policies, procedures, and processes that are aligned with industry best-practices, conducting regular benchmarking, sharing lessons learned and facilitating communication both internally and externally to nurture mutually beneficial working relationships. Together with our other programs, the Corporate Excellence program provides us with a strong, sound, and sustainable model from which to grow.

Business Excellence:
www.enec.gov.ae/about-us/leadership-and-governance/business-excellence/

Memberships

ENEC is a member of the following organizations:

World Association of Nuclear Operators (WANO)

Electric Power Research Institute (EPRI)

International Atomic Energy Agency (IAEA)

Institute of Nuclear Power Operations (INPO)

Abu Dhabi Sustainability Group (ADSG)

Women in Nuclear (WiN)

3.4 Awards and Recognition

ENEC received the following awards and recognitions in 2020:

In 2020, the UAE became a nuclear operating nation with the start-up of Unit 1 of the Barakah Nuclear Energy Plant. As a result of the robust and highly-effective media campaign to announce this achievement, ENEC was recognized as the Gold Winner for the “A Historic Year for the UAE” category of the Middle East PR Awards.

4

EMBEDDING SUSTAINABILITY

4.1 Sustainability Management

The ENEC sustainability program guides the Company's vision, mission, and values as well as ensures alignment with the international guidelines and standards including the United Nations Sustainable Development Goals (UN SDGs), and the GRI standards as well as national visions including the UAE Vision 2021, Abu Dhabi Economic Vision 2030, UAE Energy Strategy 2050.

The ENEC sustainability framework focuses on three areas of sustainability covering the delivery of safe, clean, efficient, and reliable energy to the UAE while supporting economic growth by maximizing our economic footprint and creating value for citizens by empowering our people.

All sustainability aspects that were identified as material are addressed from the construction phase through to plant operations, until the ultimate decommissioning of the nuclear energy plant.

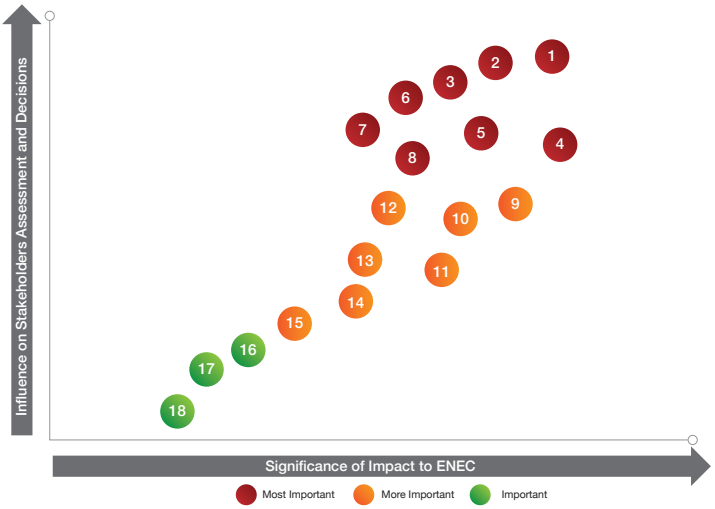
Our Sustainability Performance Management Procedure is guiding the implementation of the sustainability program and defining the roles and responsibilities to:

- Establish sustainability objectives, targets, and programs in alignment with our mission, vision, and strategic objectives.
- Regularly monitor and measure whether our activities, products and services have a potentially significant impact on sustainability and stakeholders.
- Monitor the performance of our sustainability initiatives.
- Ensure compliance with the Abu Dhabi Sustainability Group (ADSG) membership commitments.

ENEC continually strives to improve its sustainability performance by setting clear and measurable objectives and targets, monitoring, reviewing and regularly reporting performance at all the levels of business.

Materiality

We are committed to prioritizing the management of issues that are most relevant to the creation of long-term value for all of our stakeholders. We have identified and prioritized these issues through a materiality assessment process aligned with the UAE Vision 2021, Abu Dhabi Economic Vision 2030, the United Nations Sustainable Development Goals (UN SDGs), Sustainability Accounting Standards Board (SASB), and the GRI standards.



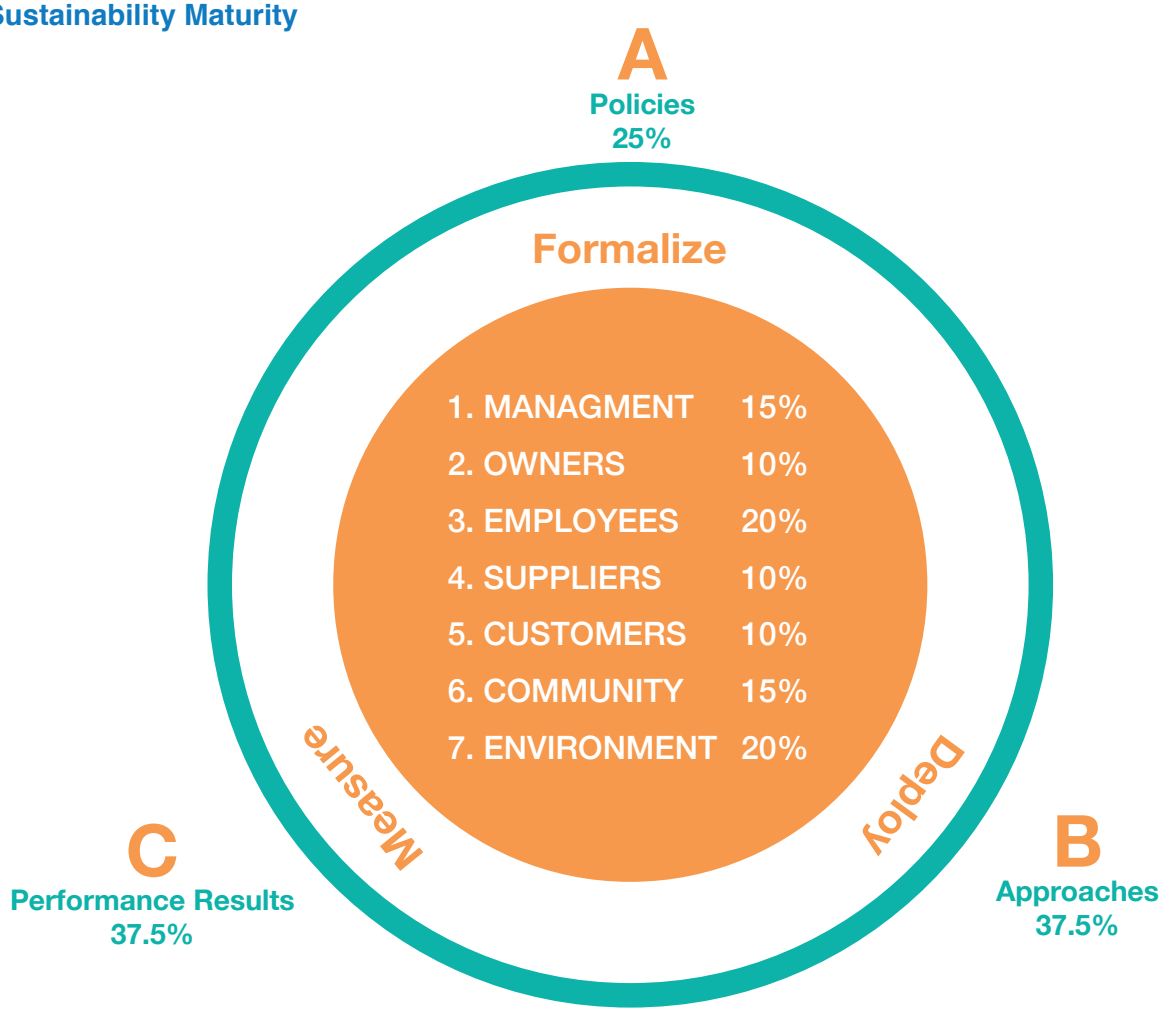
#	Material Topics[2]	Sustainability Value Pillar	Boundaries	Priority
1	Health and safety of employees, contractors, and community	Safe, Clean, Efficient and Reliable Energy	ENEC & Community	Most important
2	Environment management & compliance	Safe, Clean, Efficient and Reliable Energy	ENEC, KEPCO and subcontractors	Most important
3	Exposure to nuclear radiation (employees, contractors, and the community)	Safe, Clean, Efficient and Reliable Energy	ENEC & Community	Most important
4	Emergency preparedness	Safe, Clean, Efficient and Reliable Energy	ENEC & Community	Most important
5	Operational efficiency	Safe, Clean, Efficient and Reliable Energy	ENEC, KEPCO and subcontractors	Most important
6	Security of fuel supply	Safe, Clean, Efficient and Reliable Energy	ENEC	Most important
7	Localization and security of the supply chain	Safe, Clean, Efficient and Reliable Energy	ENEC	Most important
8	Waste management	Safe, Clean, Efficient and Reliable Energy	ENEC	Most important
9	Engagement, employment, and development of the local community	Empowering our People	ENEC	More important
10	Cybersecurity and data protection	Safe, Clean, Efficient and Reliable Energy	ENEC	More important
11	Talent acquisition, training, and growth	Empowering our People	ENEC	More important
12	Anti-corruption and ethical business practices	Safe, Clean, Efficient and Reliable Energy	ENEC	More important
13	Workforce and contractor grievances	Empowering our People	ENEC, KEPCO and subcontractors	More important
14	Direct and indirect economic contribution	Our Economic Footprint	ENEC	More important
15	Responsible supply chain	Our Economic Footprint	ENEC	More important
16	Female representation and non-discrimination	Empowering our People	ENEC	Important
17	Future financial planning	Our Economic Footprint	ENEC	Important
18	Research and development	Our Economic Footprint	ENEC	Important

GRI 2016: 102-47

Alignment with National and International Sustainability Standards

We are committed to implementing sustainability management according to international best practice and aligning our activities with local and global initiatives, such as the ADSG and the UN SDGs.

Sustainability Maturity



"The development of peaceful nuclear energy is supporting the diversification of the UAE's economy and energy mix, while also helping our Nation meet its commitments under the Paris Climate Change Agreement. Supplying the UAE with clean and reliable electricity, developing a local industrial supply chain and ensuring the sustainability of the Barakah Plant are three of our key goals for the future. It is of paramount importance to ENEC that we operate safely and in an environmentally conscious manner."

H.E. Eng. Mohamed Al Hammadi, Chief Executive Officer of ENEC

To objectively assess our implementation of sustainability management, we utilize the Sustainability Maturity Assessment Tool (SMAT) deployed by the ADSG under the leadership of the EAD.

The tool has over 150 criteria that assess sustainability policies, approaches, and performance across seven areas, including management, owners, employees, suppliers, customers, community, and environment. We complete the responses to the criteria and then verify them by external third-party sustainability experts.

The results of the SMAT show that our sustainability program has continued to mature year-on-year, rising nearly 3% since last year.

Sustainability Maturity Index (%)	2018	2019	2020
	70.4%	77.8%	80.5%

Contribution to the UN Sustainable Development Goals (SDGs)

Our sustainability strategy helps us track our contribution to the UN SDGs. We hold an incredibly special role in the UAE's contribution to the SDGs, specifically in support of 'Affordable and Clean Energy' (SDG 7) by instituting a comprehensive civil nuclear energy program which includes building four new nuclear reactors with an estimated capacity to provide up to 25% of the UAE's electricity needs.

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

Sustainability Value Pillar	Sustainability Aspect	UN SDG Addressed
Our Economic Footprint	• Financial Responsibility • Supply Chain Management • Economic Development	
Safe, Clean, Efficient and Reliable Energy	• Health, Safety, Environment and Sustainability Management System (HSEMS) • Health, Safety and Security, • Quality, Efficiency and Reliability • Environmental Management	
Empowering our People	• Our Workforce • National Talent Development • Knowledge Creation	

4.2 Stakeholder Engagement

Effective engagement with all internal and external stakeholders is fundamental to the successful implementation of the UAE Peaceful Nuclear Energy Program. We focus on achieving four objectives as part of our approach to stakeholder engagement:

1. Ensure ongoing education about nuclear energy as a source of reliable, clean, and efficient electricity.
2. Increase awareness and understanding about the UAE Peaceful Nuclear Energy Program at every stage of its development.
3. Ensure our stakeholders can provide input on their needs and expectations of the program.
4. Continue to listen and respond to stakeholder feedback, issues, and concerns through genuine two-way communication.

We have a large and diverse stakeholder base, which includes a wide variety of organizations and individuals. Appendix B of this report outlines our stakeholder groups in detail and provides more information about how we interact with them.

Due to the COVID-19 circumstances and the precautionary measures undertaken at the Barakah NPP site, access was very restricted. Therefore, several site visit requests were replaced by virtual outreach sessions. In addition, various webinars, student outreach programs and stakeholder engagement sessions were conducted to meet our stakeholders' needs and ensure proper engagement with them.

Each quarter, we highlight the progress of the Barakah NPP to stakeholders via an e-newsletter called "Nashra", which provides the latest news, events, and construction updates..

The External Stakeholders Working Group (ESWG)

The External Stakeholders Working Group (ESWG) is established and led by our Communications division. We developed a stakeholder map that incorporates and categorizes key external stakeholders, based on their influences on ENEC and our subsidiaries' operations and business. We have also identified a specific group of strategically important stakeholders who are vital to the success of the UAE Peaceful Nuclear Energy Program.

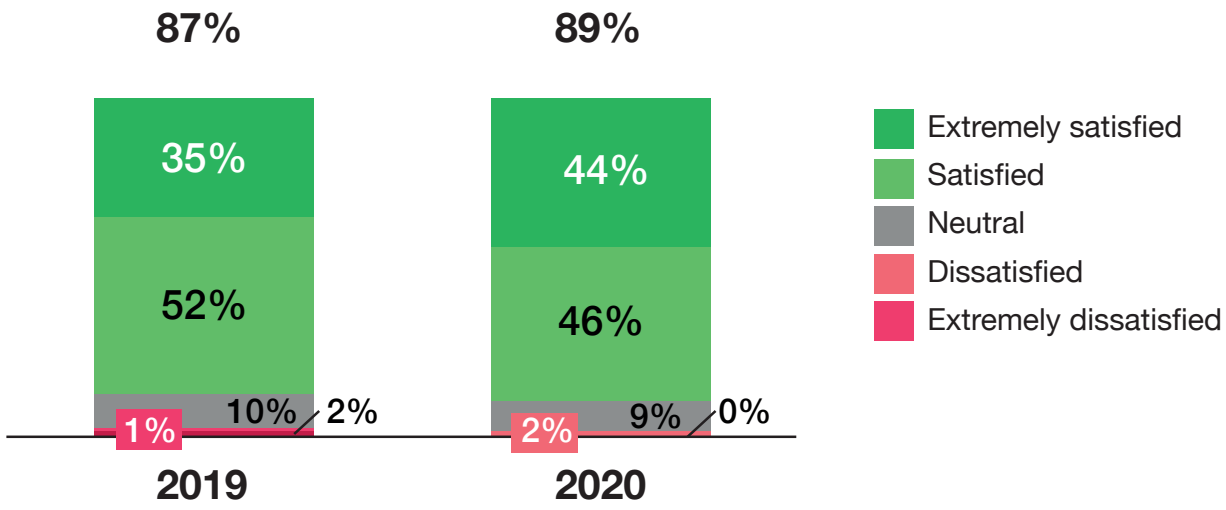
GRI 2016: 102-42, 102-43

The ESWG was established to enhance and build on relationships, and to assign clear organizational responsibilities and focal points for direct liaison to streamline communications.

The key objectives of the ESWG are to:

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

We evaluate stakeholder satisfaction through annual surveys. Results of our Stakeholders Satisfaction Survey conducted in 2020 showed 89% satisfaction level (compared to 87% in 2019) while dealing with the UAE Peaceful Nuclear Energy Program, and 89% satisfaction in meeting expectations vs. 82% in 2019.



Stakeholder Networking Virtual Forum

ENEC hosted a virtual Stakeholder Forum in November 2020, bringing together stakeholders from a diverse range of UAE organizations to celebrate the success of their ongoing collaboration. The stakeholders were also provided with the latest progress updates on the Barakah NPP. The event was held to recognize the significant and diverse contributions of its stakeholders, ranging from key government entities and regulatory authorities to media organizations and academic institutions.

Effective collaboration between ENEC and its stakeholders has proved invaluable in the delivery of key milestones throughout the year and continued progress across the plant. It has also provided guidance in safely addressing the challenges brought on by the global COVID-19 pandemic.

GRI 2016: 102-42, 102-43

Public Engagement and Perceptions

Public Forums

ENEC has made it a priority to regularly host public forums as part of our ongoing commitment to engage with the local community and increase awareness and understanding of the UAE Peaceful Nuclear Energy Program and its benefits. Since 2010, we held a total of 35 public forums in the Al Dhafra region and across the UAE, attracting more than 8,000 attendees. Led by the CEO, the forums are open to all members of the community. They provide a transparent and interactive platform to ask questions about the program as well as to gain a deeper insight into different aspects such as the economic and social benefits the plant is already bringing to the UAE. They also provide updates on the progress being made at the Barakah NPP.

UAE Public Opinion Poll

This year, due to the restrictions imposed by the COVID-19 circumstances, we shifted all public engagement polls to online platforms. The poll results were generated through a combination of online panel research and online mini-focus groups.

The 2020 results showed a positive trend in the perception of nuclear energy, with overall support for the UAE Peaceful Nuclear Energy Program continuing at a high level. There is increased awareness of ENEC as an entity as well as for the UAE Peaceful Nuclear Energy Program.

The 2020 key findings of the Public Opinion Polls are as follows:

- Support for nuclear energy as a source of electricity generation remains high among UAE residents at 88% for 2020 (maintaining a similar level to 2019 which sat at 90%).
- The perception of nuclear energy as important for delivering future energy needs has also seen a steady increase over the past five years, rising to 86% in 2020 from 81% in 2019.
- Spontaneous recall of nuclear as a source of electricity generation has increased to 58% from 42% in 2019 - marking an overall increase in awareness.

Gulf Cooperation Council (GCC) Opinion Poll

For the first time, ENEC conducted a public opinion poll in neighboring countries, to promote regional awareness on the UAE Peaceful Nuclear Energy Program. The poll was also held online, targeting both males and females between the ages of 25 and 55 based on Saudi Arabia, Kuwait, Jordan, Egypt, Bahrain, Oman, and Qatar.

The 2020 key findings of the GCC Opinion Polls are as follows:

- More than 50% of residents of targeted countries are aware of using nuclear energy as a source of electricity.
- General sentiment across the GCC is in favor of the UAE Peaceful Nuclear Energy Program, with majority believing that the UAE plant is safe.
- All GCC residents universally accept that the benefits from the UAE nuclear plant outweigh the risks, with results being more than 80% in all countries.

GRI 2016: 102-42, 102-43

- Many countries stated that the UAE Peaceful Nuclear Energy Program will not have an impact on their country of residence.
- Transfer of knowledge was clearly identified as the biggest benefit from the UAE Peaceful Nuclear Energy Program on the resident's country.

National and International Engagement

ENEC works closely with industry bodies and attend both local and international events, to update international stakeholders on progress at the Barakah Plant. Key engagements this year included:

- In January 2020, a senior delegation of officials from ENEC visited Washington, DC, in the United States (US) to highlight progress around the development of the UAE Peaceful Nuclear Energy Program. Their visit also coincided with the ten-year anniversary of the signing of the US-UAE Agreement for Peaceful Civilian Nuclear Energy Cooperation. During their trip, the delegation had the chance to meet with existing and prospective US-based suppliers and stakeholders from the nuclear energy sector.
- In September 2020, Abu Dhabi National Oil Company (ADNOC) collaborated with Mubadala Investment Company (Mubadala) and ENEC to drive its In-Country Value (ICV) Program for the UAE. As per the terms of the deal, the three companies will explore opportunities to create additional skilled employment opportunities for Emiratis in the private sector and source goods and services within the country.
- ENEC held virtual talks with US Deputy Secretary of Energy in November 2020, to discuss the latest developments in the energy sector and identify areas of cooperation. Building on the peaceful bilateral energy agreement between the two countries, the talks included cooperation opportunities for the peaceful uses of nuclear energy, including cybersecurity collaboration. During the meeting, ENEC emphasized its commitment to working with international partners, and to build successful relationships to facilitate the exchange of knowledge and experience in pursuit of continuous improvement and operational excellence.

International Engagements:
https://www.enec.gov.ae/news/latest-news/2020/

4.3 2020: Towards the next 50

الإمارات
THE EMIRATES

عام الاستعداد للخمسين
Towards the next Fifty

His Highness Sheikh Khalifa bin Zayed Al Nahyan, the President of the UAE, and declared 2020 as the year 'Towards the next 50'. This marks the launch of the National strategy that prepares the UAE for the next 50 years as well as its Golden Jubilee in 2021. The year of preparation for the next fifty requires community collaboration to advance our development drive and its sustainability and fulfill our aspirations to a better future for our country.

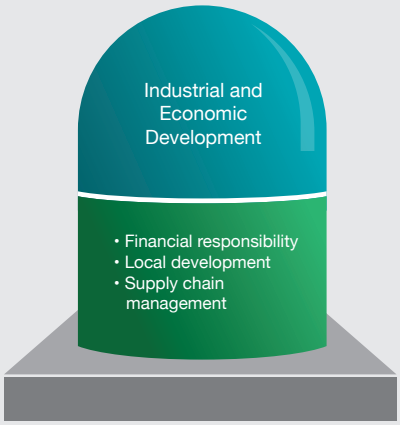
Across ENEC, we contribute to the long-term sustainable development of the UAE, as our organization continues to grow, we remain committed to the evolution and development of our sustainability program, to ensure we continue to meet and respond to the needs of the community, the environment, and the nation.

This year, we successfully achieved 100% of the rated reactor power capacity for Unit 1 of the Barakah NPP. This provides a strong example of the country's progress as it continues to advance towards a sustainable, clean secure and prosperous future by acting as a catalyst of the clean carbon future of the nation.



5

OUR ECONOMIC FOOTPRINT



We are supporting the Nation's economic growth and diversification by investing responsibly in a local peaceful nuclear energy industry that can contribute to national, regional, and international nuclear supply chains.

5.1 Overview

The UAE needs electricity to maintain its rapid economic growth. As the Nation's economy grows, the UAE requires more electricity to power and meet the rising energy demand of a continuously increasing population. The UAE Peaceful Nuclear Energy Program is a multibillion-dollar investment in economic and industrial growth and diversification. This strategic and responsible deployment of government funds will deliver large amounts of reliable energy for the future growth of the country.

The program has already delivered skilled jobs and new business opportunities for companies, as well as expanded investment in the Al Dhafra region of Abu Dhabi. As the first nuclear energy plant in the region, and with other countries now looking to follow the UAE's lead, the Barakah NPP will continue to deliver value well into the future as UAE companies and talent compete for business in the regional and international nuclear energy sector.

Sustainability Objectives

Our economic development sustainability objectives include:

1 Financial responsibility – deliver cost-effective power through a combination of financial responsibility and effective operational execution.

2 Supply chain management – develop a supply chain that is increasingly locally based and meets the environmental, social, and sustainability standards of the nuclear industry.

3 Economic development – become a driving force behind the UAE's investment plan, providing business development opportunities and contributing to the UAE's Gross Domestic Product (GDP).

SDG Targets Addressed

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

Sustainability Value Pillar	Sustainability Aspect	UN SDG Addressed
Our Economic Footprint	Financial Responsibility Supply Chain Management Economic Development	  

UN SDGs Addressed	
	**Diversify, innovate, and upgrade for economic productivity.** Achieve higher levels of economic productivity through diversification, technological upgrading, and innovation, including through a focus on high value added and labor-intensive sectors.
	**Promote policies to support job creation and growing enterprises.** Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity, and innovation, and encourage the formalization and growth of micro, small- and medium-sized enterprises, including through access to financial services.
	**Promote inclusive and sustainable industrialization.** Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries.
	**Promote sustainable public procurement practices.** Promote public procurement practices that are sustainable, in accordance with national policies and priorities.

5.2 Financial Responsibility

We have developed the necessary policies and procedures to conduct business in an accountable and efficient manner to ensure the UAE Peaceful Nuclear Energy Program makes optimal use of government resources.

Measures are in place to ensure funds are spent efficiently and within budget. Expenditures are monitored closely, and authorized personnel per the appropriate Delegation of Authority (DOA) approve all expenses before being committed. Payments are approved based on the limit authorized in the respective Board-approved DOA, which is reviewed and updated periodically.

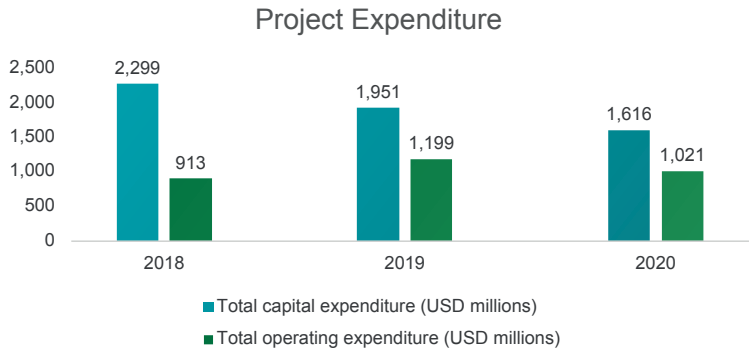
Project Financing

We 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) 24.4 billion:

- USD 16.2 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).
- USD 250 million was generated through loan agreements with five local and international commercial banks.
- A total of USD 4.7 billion in equity commitments were made for the establishment of the and Nawah Energy Company in exchange for equity interest in the two companies, shared between ENEC (82%) and KEPCO (18%).

Budgeting and Spending

The Barakah NPP's relatively short construction period, in comparison to most nuclear energy plants, makes it economically competitive and sustainable. At ENEC, we manage the overall project expenditure, including both subsidiaries, Nawah and Barakah One Company.



CAPEX mainly represents payments made towards our USD 20 billion contractual agreement with the Prime Contractor, KEPCO. Our CAPEX has a declining trend, reflecting the winding down of construction activities as we are nearing overall completion. There was a significant decline in 2020 because of COVID-19.

OPEX covers the costs of our employees and service contractors' communication, administration, and capacity building, including the ENEC Energy Pioneers scholarship program.

In 2020, ENEC demonstrated its continued commitment to developing and supporting the community. Throughout the year, ENEC contributed over AED 1,584,000 in donations and sponsorships.

Community Investment	2018	2019	2020
Donations and sponsorships (AED; thousand)	4,745	7,676	1,584

5.3 Supply Chain Management

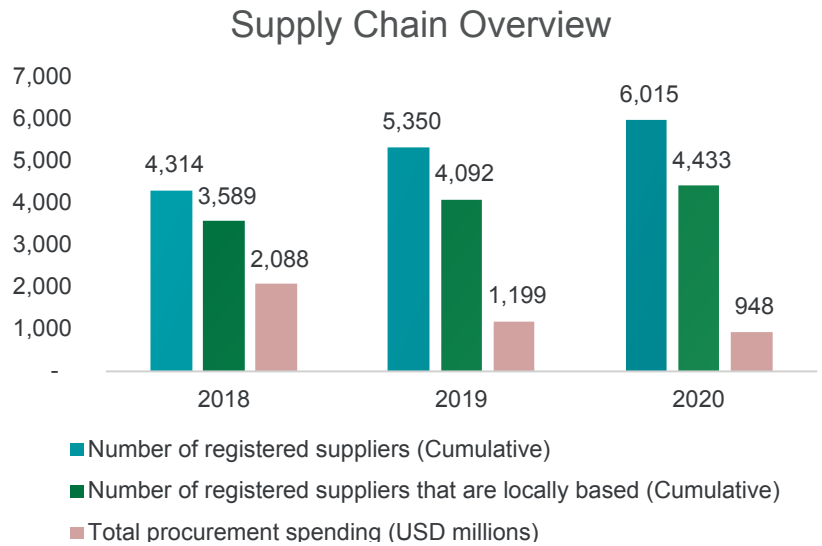
Our supply chain is responsible for the Governance, Oversight, Support and Perform (GOSP) Strategic Procurement, Strategic Contract Management, Operational Procurement, Inventory Management, and Warehouse and Logistics. Supply Chain is managed and assessed on four required key elements: qualified staff (People), Process (i.e., SAP systems), Procedures, and Warehouse (Plant) to plan, source, procure, receive, store, transport, and issue required materials and services for the Barakah NPP's safe and secure operation.

The overall supply chain required to construct and operate the Barakah NPP is both extensive and global. We have over 6,000 registered suppliers that compete for contracts every year. These suppliers range from locally owned Small and Medium-sized Enterprises (SMEs) to large-scale Multinational Companies (MNCs).

ENEC is responsible for corporate procurement requirements, including expert services, ICT equipment and site-related support services. ENEC's Procurement and Supply Chain (PSC) function provides a central procurement and contracting service ensuring ENEC's goods and services are procured to the best contractual terms and conditions, in full compliance with legal and regulatory requirements, supporting ENEC's sustainability objectives.

Similarly, Nawah Supply Chain is responsible for plant-related procurement including expert support, engineering, and manpower services. The Nawah Supply Chain function provides a central procurement and contracting service ensuring that Nawah's materials and services are procured on the best contractual terms and conditions that ensure nuclear safety and quality requirements are met.

The Prime Contractor, KEPCO, has many suppliers and subcontractors of its own. ENEC oversees these arrangements, provide guidance, and track performance to ensure our standards and UAE-specific requirements are implemented and followed.



2018 and 2019 total procurement spending values have been restated to include Barakah One Company

Scope: ENEC, Nawah and Barakah One Company

GRI 2016: 102-48

Procurement and Supply Chain Governance

We have a comprehensive PSC Governance Framework that includes a procurement process situations matrix, a register of reported situations, a process for verification and reporting of identified situations, and the identification of opportunities for improvement. The framework helps to ensure that our procurement practices align with the highest ethical and governance standards.

Supply Chain Localization

To bring maximum economic benefit to the UAE from the Barakah NPP, and to improve the security of supply, ENEC strives to procure goods and services from locally based suppliers, whenever possible. In total, 74% of the suppliers registered with us are locally based and 42% of the 2020 procurement spend, equaling a total of $396 million, was placed with locally based suppliers.

In 2020, ENEC adopted the ICV Program, which is in alignment with UAE vision, and supports the future development of the market capabilities in the country as well as improves business relations between the ENEC and its subsidiaries and companies both locally and internationally. By the end of 2020, all enablers for the ICV Program were in place, and ENEC will start implementing the ICV Program in 2021.

ENEC is also an active supporter of the Khalifa Fund for Enterprise Development (KFED) – a dynamic organization that promotes and supports entrepreneurial ventures in Abu Dhabi. To date, 30 KFED companies have registered as suppliers. These suppliers are being actively encouraged to bid for future contracts.

In 2020, ADNOC Distribution became the first company in the UAE to supply petroleum products for Barakah NPP. In September 2020, ADNOC joined 73 local companies that ENEC's Business and Industrial Development Team and the Nawah Quality Assurance team have qualified to supply high quality products for the Barakah NPP. The qualification requires the ability to adhere to the Nuclear Quality Assurance (NQA)-1 standard, developed and maintained by the American Society of Mechanical Engineers (ASME).

Local Procurement			
Year	2018*	2019*	2020
Total procurement spending on suppliers based in the UAE (USD millions)	538	354	396
Percentage of registered suppliers that are locally based (%)	83%	76%	74%
Percentage of procurement spending on locally based suppliers (%)	26%	30%	42%
Number of KFED suppliers registered (Locally owned SME companies funded by Sheikh Khalifa) (Cumulative)**	22	32	30***

*Values have been restated as procurement spending was updated to include Barakah One Company

**Scope excludes Nawah.

***In 2020, ENEC PSC undertook a Commercial Directory cleanup exercise, where a few supplier records were suspended or deactivated due to incomplete documentation in the profiles. Some of those suppliers were KFED suppliers. Therefore, the total number of KFED suppliers in 2020 is less than previous years.

Scope: ENEC, Nawah and Barakah One Company

Supply Chain Sustainability Impacts

To safeguard from potential risk and satisfy internal Health, Safety, Environment and Sustainability (HSES) requirements, we take an active role in ensuring that our supply chain meets high ethical standards and that relevant suppliers implement the environmental, social, and labor-related policies and procedures required to operate responsibly.

GRI 2016: 102-48

Code of Conduct

All suppliers registered through our supplier portal must agree to our 'Supplier Code of Conduct', which sets out the principles and standards of conduct expected of every supplier. The document, which is available on the ENEC website, covers topics such as HSES, labor practices, fraud, ethical behavior, conflicts of interest, whistleblowing, compliance with the UAE law and our environmental and sustainability leadership. ENEC has not received reports of any breaches in supplier compliance with the Supplier Code of Conduct in 2020.

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

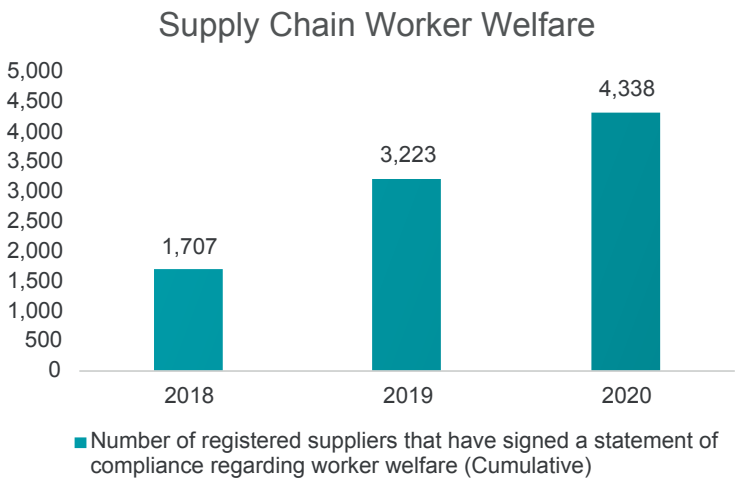
Health, Safety, Environment and Sustainability (HSES) Requirements in Procurement

ENEC's Supplier Code of Conduct lists mandatory HSE requirements to which suppliers must adhere to become a registered supplier. HSES criteria are screened at the prequalification stage for selected suppliers. In addition, for products and services being procured that are classified to have significant HSES risks, bidders will be assessed against a range of project specific HSES requirements. Should a bidder fail to achieve the necessary HSES score, they will automatically fail and be removed from the selection pool. All contracts require HSES considerations to be incorporated, depending on the level of risk.

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

Labor Practices

ENEC's Supplier Code of Conduct lists mandatory labor practices. ENEC views compliance with all labor laws and good worker welfare practices as a prerequisite for being registered as a supplier or being awarded a contract. To verify this, ENEC requests suppliers to sign a statement of compliance regarding worker welfare. In 2020, the number of suppliers having signed the statement rose to 4,338.



Scope: ENEC, Nawah and Barakah One Company

GRI 2016: 102-48

Supplier Risks and Screening

To safeguard against potential risk and satisfy internal HSE requirements, ENEC takes an active role in ensuring its supply chain meets the highest ethical standards and that relevant suppliers implement all environmental, social, and labor-related policies and procedures required to operate responsibly.

ENEC's Supplier Code of Conduct, at the registration phase, captures all suppliers' acknowledgement on ENEC's expectations regarding environmental protection, labor practices and human rights issues. Selected suppliers go through ENEC's prequalification process, which helps to identify levels of compliance with necessary standards and regulations. ENEC conducts risk-driven prequalification exercises to ensure that potential suppliers meet specified standards for quality and safety. In addition, prequalification exercises gather business continuity information from the supplier to help gauge the maturity of the supplier's business continuity planning capability. ENEC evaluates factors such as experience, financial ability, managerial ability, reputation, work history, environmental protection, labor practices and human rights protection, etc. to ultimately develop a list of qualified bidders for tenders. At the award stage, our contracts include specific provisions on environmental protection, labor practices and human rights issues.

Each employee within ENEC and its subsidiaries must complete training on the Code on an annual basis. This is ensured through an online training program via our Learning Management System (TAQA). Adherence to ethics and prevention of fraud and corruption principles is ensured through annual disclosures, via our Disclosure Management System, wherein employees declare that they had read, understood, and abide by the Code.

In addition, ENEC has developed a Sustainable Procurement Guidelines document which provides guidance on incorporating elements of sustainability in the procurement process in support of ENEC's sustainability goals, policies, and procedures. This document includes application of Sustainable Procurement guidelines in all stages of procurement starting from Registration of Suppliers until all contractual commitments have been fulfilled and completed with the Contract close-out.

Due to the nature of ENEC's procurement requirements, there are no significant human rights related risks identified within the supply chain. ENEC does not tolerate any forms of forced/compulsory or child labor.

In November 2020, we conducted an ENEC Supplier Forum virtually, which was attended by nearly 300 Suppliers (local and international). The forum provided information to the suppliers regarding:

- Centralization of supplier registration and record management.
- Introduction of supplier perspective surveys to hear the voice of suppliers during various stages of engagement.
- Steps taken by the ENEC and its subsidiaries to support local micro, and SMEs.
- Activities planned to improve the resilience and sustainability of the local supply chain (Business Continuity Management Plan, Supplier COVID Prevention Plan and adoption of the ICV Program).

5.4 Economic Development

The development of the Barakah NPP is a major driver of short-term and long-term economic development for the Al Dhafra region and the UAE overall. The project has created thousands of jobs and has led to significant investment in local infrastructure that will benefit the region for decades to come. Most significantly, the project has provided an opportunity for local businesses to meet the necessary quality standards required to join a global nuclear supply chain.

Industrial Development

We play a significant role in developing the capabilities of UAE companies to achieve the necessary nuclear-grade quality assurance standards for supplying materials used in the construction and operation of nuclear energy producing facilities.

To maximize the benefit of the Barakah NPP for the national economy in the long term, we support UAE businesses in reaching the necessary standards required to provide their products and services to the nuclear supply chain. This gives UAE companies a competitive edge, as once achieved, companies can exploit export opportunities to supply nuclear energy projects in other GCC countries looking to invest in their respective nuclear energy projects and globally.

In 2020, the Business and Industrial Development team continued the implementation of the localization roadmap by identifying and assessing UAE industrial capabilities with potential to support Barakah NPP during operations and maintenance. ENEC successfully developed new suppliers through a series of NQA awareness sessions for local suppliers, and new partnerships were signed for various support services. The team also organized various events with the aim of increasing international collaboration, attracting experienced nuclear suppliers to the UAE and promoting awareness on supply chain localization.

As part of our priorities to work towards excellence and continuous improvement, ENEC conducted a series of benchmarking sessions held with international and local organizations in the fields of operations, maintenance, procurement, ICV, and localization.

> “The UAE Peaceful Nuclear Energy Program will power the growth of the Nation with clean, efficient and reliable nuclear energy, and its development is already supporting many strategic sectors through the enhancement of local businesses, the development of new industries and the creation of high-value jobs.”
>
> **H.E. Eng. Mohamed Al Hammadi**, Chief Executive Officer of ENEC

6

SAFE, CLEAN, EFFICIENT AND RELIABLE ENERGY

Our primary contribution to national sustainable development is the creation of significant volumes of safe and clean electricity for the UAE. This will help reduce the UAE's greenhouse gas (GHG) emissions and provide long-term energy security for a rapidly growing population.

6.1 Overview

ENEC was established in 2009 to deliver safe, clean, efficient, and reliable electricity to the UAE grid and contribute to the sustainable energy future of the UAE. The core principles of 'safe, clean, efficient and reliable' have been rigorously applied to both the construction and operation of the Barakah plant.

Sustainability Objectives

Our Health, Safety and Environment (HSE) and sustainability objectives include:

1 HSEMS – safeguard the health and wellbeing of all employees, contractors, and the local community.

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

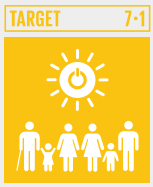
3 Quality, Efficiency and Reliability – achieve operational excellence and the implementation of industry best practices.

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

SDG Targets Addressed

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

Sustainability Value Pillar	Sustainability Aspect	UN SDG Addressed
Safe, Clean, Efficient and Reliable Energy	• Health, Safety, Environment Management System (HSEMS) • Health, Safety and Security • Quality, Efficiency and Reliability • Environmental Management	

UN SDGs Addressed	
	**Reduce mortality from non-communicable diseases and promote mental health** By 2030, reduce by one-third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and wellbeing.
	**Reduce Road Injuries and Death** By 2020, halve the number of global deaths and injuries from road traffic accidents
	**Reduce Illness and Death from Hazardous Chemicals and Pollution** By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.
	**Improve water quality, wastewater treatment and safe reuse** By 2030, improve water quality by reducing pollution, eliminating dumping, and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater, and substantially increasing recycling and safe reuse globally.
	**Universal access to modern energy** By 2030, ensure universal access to affordable, reliable, and modern energy services
	**Protect labor rights and promote safe working environments** Protect labor rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.
	**Develop sustainable, resilient, and inclusive infrastructures** Develop quality, reliable, sustainable, and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human wellbeing, with a focus on affordable and equitable access for all.
	**Substantially reduce waste generation** By 2030, substantially reduce waste generation through prevention, reduction, recycling, and reuse.

6.2 Health, Safety, Environment Management System (HSEMS)

To coordinate the management of all aspects of HSES, we developed a comprehensive HSEMS. The HSEMS defines the principles by which we conduct business, including HSE policies, procedures and codes of practice that ensure a systematic approach to HSE. The key elements include:

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

The HSEMS has been in place since 2010 and is continually improved to ensure alignment with regulatory requirements, international standards and the identification of new and emerging risks and opportunities. The HSEMS is certified against ISO 14001:2015 Environment Management system (EMS) and Occupational Health and Safety Management system (OHSMS) ISO 45001:2018. OHSMS has obtained the OSHAD Certificate of Approval.

To manage and monitor the HSEMS, we have several teams, including a Corporate HSES team, a Construction HSES Oversight Team (Chief Program Office – CPO), Nawah Health and Safety team, Nawah Environment team, Nawah Emergency Preparedness team, ENEC Facilities Support Services (EFSS) HSE, and Business Continuity Management (BCM) team.

Working with Contractors

We work closely with our contractors, to develop and maintain a world-class nuclear safety culture, policies, and procedures. Throughout the construction phase at Barakah, ENEC oversees the HSES performance of KEPCO including contractors and subcontractors. A comprehensive approach was developed for the management of contractor procedures for dealing with HSES topics. Through the oversight activities, ENEC monitors the effectiveness of implementation of contractors and subcontractors' HSES programs. Daily, weekly, and monthly inspections are performed at the construction site along with weekly and monthly cross-organizational meetings.

6.3 Health, Safety and Security

Safety is the overriding priority for UAE's Peaceful Nuclear Energy Program. ENEC is committed to achieving the highest standards of safety and quality as we work to deliver clean and sustainable nuclear energy to the Nation.

The construction and operation of the Barakah plant is regulated by FANR, who also licenses the Barakah NPP's operators. We continually adopt global best practices from global nuclear energy industry leaders and industry organizations including the IAEA, WANO and the INPO.

Our Sustainability Policy (CEO-POL-7) and our Occupational Safety and Health (OSH) Policy (CEO-POL-8) outline our commitment to conduct work in a sustainable manner and effectively control environmental, health, safety, and security risks through all phases of the nuclear energy plant lifecycle. Our internal culture enshrines safety as the collective responsibility of everyone involved in the project, from the Board of Directors to employees, contractors, subcontractors and even visitors.

ENEC has a social responsibility to ensure a safe community and safeguard our employees' health and safety. Extensive effort is made to ensure the occupational safety and security of our people at our both Headquarters (HQ) and onsite. The existing measures cover the prevention of workplace incidents, emergency preparedness should an emergency arise, and business continuity management in the event of a crisis.

The HSES Department's priority is to facilitate proactive HSE initiatives, ensure regulatory compliance and enable a safe working environment for all. ENEC aspires to achieve zero incidents and is determined to continuously improve health and safety levels across all activities.

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

Health

Across ENEC, all job categories have been assessed for potential occupational health risks as part of a thorough Occupational Health Risk Assessment. This allows us to quantify the effects of unmanaged occupational health risks on employees and take appropriate actions to control risks.

ENEC maintains an annual Health Program that facilitates the ongoing development of health-related codes of practice. Contractors and subcontractors are expected to deploy similar systems to ensure risks are identified, evaluated, and mitigated as low as reasonably practicable (ALARP). We have maintained zero occupational health illnesses reported among our employees, contractors, and subcontractors.

Heat Stress

Heat stress has been identified as one of the region's highest occupational health risks, primarily for personnel working outdoors in the summer months. The focus is to avoid heat stress incidents by implementing control measures that ensure employees, contractors, and subcontractors are never over-exposed to the sun and remain hydrated. During 2020, ENEC's CPO HSE team participated in three Heat Stress campaigns conducted in Barakah NPP.

The objectives of the first and third campaigns were to improve heat stress awareness of the employees and importance of preventive action while working during summer season. Banners were posted and pamphlets were distributed among employees. The second campaign included awareness sessions on Heat Stress prevention measures, Thermal Work Limit (TWL) monitoring and use of Oral Rehydration Solutions (ORS).

Heat Stress			
Year	2018	2019	2020
Heat stress incidents (employees)	-	-	4
Heat stress incidents (contractors and subcontractors)	11	-	2

Scope: ENEC, Nawah, Barakah One Company and KEPCO

Medical Services and First Aid

At the Barakah NPP offices, first aid boxes and automated external defibrillators are available on each floor and are clearly identified on the emergency evacuation maps located at each exit. Lists of first aiders, both male and female, with their contact details, across Barakah Plant. The contact details and physical office locations of the first aiders are confirmed and amended quarterly. The contents of the first aid units are fully inspected every month and replenished immediately to conform to OSHAD and ENEC First Aid requirements.

This year, ENEC and BOC undertook certified first aid and fire warden training sessions to raise employee awareness levels and response process in the case of medical emergencies. Overall, 42 people attended first aid and fire warden certified courses.

Due to its large number of contractors and subcontractors, KEPCO has appointed an in-house, Department of Health (DoH)-approved, first aid and medical services provider at the Barakah NPP, which offers 24/7 medical facilities and services. We regularly inspect their services, and asses it monthly, to ensure conformance to all DoH standards and registration requirements.

Food Safety

The Corporate Health Team, in coordination with the Enterprise Facilities Support Services (EFSS) HSE Team, undertakes regular inspection program to ensure the highest standards of quality and hygiene are maintained along the food supply chain (e.g., during preparation, transportation and serving) and that accommodations are safe, hygienic, and comfortable. All concerns are raised to the respective service providers to ensure that adequate corrective measures are taken.

The teams provide targeted awareness campaigns based on issues raised, such as health and wellbeing programs that assess the eating habits of employees. Other targeted initiatives include tips around healthy eating during the Holy Month of Ramadan and raising awareness around staying hydrated and using cool shelters during the hot summer.

Four food safety and hygiene inspections were conducted during 2020. Apart from the challenges posed by COVID-19, no other findings were recorded.

Industrial Hygiene

Various industrial hygiene procedures and programs are in place, such as identification and monitoring of oxygen deficient areas, control of confined spaces, calibration of industrial hygiene equipment, industrial hygiene stress factor monitoring and related hygiene assessments, including air quality surveys, noise control areas and management of hazardous substances. Respirator and Self-Contained Breathing Apparatus (SCBA) training and fit testing equipment are available, and all breathing apparatus are tested and inspected.

Health Screening

Health screening and medical surveillance is mandatory for all employees and consists of visiting an occupational health physician and completing a health history questionnaire to determine current medical issues and identify previous occupational incidents that may have resulted in a medical issue. All results and recommendations from the screening are confidentially processed to manage the individual's occupational health. Each employee undergoes this assessment periodically based on the risks associated with their job category, in conformance with OSHAD and FANR statutory requirements.

Health Grievances

The Condition Reporting (CR) program facilitates proactive reporting of safety concerns and near-miss incidents. The program assigns responsibility for the implementation of corrective actions to the relevant party. Also in place is the Employee Grievance Committee which addresses and resolves employee grievances. All employees have a responsibility to stop work activities where an existing or potential threat to safety is observed. All employees can raise health-related concerns through the CR program. Contractors and subcontractors can raise grievances through the Safety Observation Program, where workers can drop a card on any wellbeing grievance related issue in boxes spread across the plant. In 2020, no wellbeing related grievances were raised.

Safety

All our employees receive annual training on ENEC's safety principles and procedures. Our leadership encourages employees to voice any queries and concerns. Meetings begin with a Safety Moment, to ensure safety remains at the forefront. The Executive Management Safety Charter serves as a guide to support and enable operation of our businesses safely.

We undertake regular safety and quality audits, seeking to drive continual improvement in all areas of management and operation.

Employee Occupational Safety

At ENEC, we strive to improve the HSES awareness of all employees through HSES eLearning modules, and HSES communications and training sessions. Each year, we hold mandatory health and safety awareness sessions for all our employees. The sessions included renowned motivational speakers that delivered engaging messages on the importance of health and safety in the nuclear industry.

Employees of ENEC and our subsidiaries work at the ENEC HQ in Abu Dhabi and onsite in Barakah, regularly travelling between the two locations. This means that safety risks ranging from transportation, construction,

operation, and nuclear safety onsite are all material issues that are incorporated into the management of safety. During 2020, we improved the Lost Time Injury Frequency Rate (LTIFR) and the Total Recordable Case Frequency Rate (TRCFR) and had zero employee fatalities.

Employee Occupational Safety			
Year	2018	2019	2020
Number of employee hours worked	3,838,912	7,387,735	7,243,242
Fatalities (employees)	0	2	0
Lost Time Injury Frequency Rate (LTIFR; employees)	0.70	3.84*	0.51
Total Recordable Case Frequency Rate (TRCFR; employees)	1.60	2.48	0.74

*Value has been restated
Scope: ENEC, Nawah and Barakah One Company
LTIFR and TRCFR are calculated per million man-hours.

Contractor Occupational Safety

We closely monitor the safety performance of the Prime Contractor, KEPCO, and its subcontractors, working closely with them to ensure that the same rigorous safety systems and culture exists throughout the construction site. We regularly undertake audits to ensure that our contractors and subcontractors follow all relevant UAE laws and regulations. This starts with the review of KEPCO's HSEMS and its procedures and stretches to onsite inspections for all construction areas and disciplines. Observed deficiencies, if not corrected on the spot, are reported through a deficiency notification program, which is the formal communication channel with the Prime Contractor, and then addressed through corrective action plans. Performance indicators and deficiency notifications are followed-up and tracked monthly until complete implementation and effective closure is reached.

Over the past years, contractor LTIFR as well as TRCFR continuously improved. This is mainly due to the rigorous training and inspections performed jointly by ENEC, the Prime Contractor, and subcontractors. When incident causes are identified, commensurate corrective actions are developed and implemented in a timely manner to ensure they do not reoccur.

Contractor Occupational Safety			
Year	2018	2019	2020
Number of contractors and subcontractors	11,922	9,497	6,257
Contractor and subcontractor hours delivered (millions)	32.2	40.74	16.32
Fatalities (contractors and subcontractors)	0	0	0
Lost Time Injury Frequency Rate (LTIFR; contractors and subcontractors)	0	0.04	0
Total Recordable Case Frequency Rate (TRCFR; contractors and subcontractors)	1.00	0.37	0.31

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

GRI 2016: 102-48

Nuclear Safety

Nawah is developing the necessary procedures and management systems to achieve the highest standards of nuclear safety and quality during operation of the Barakah NPP. All procedures and systems are built on the expertise and operational experience of the global nuclear energy industry, adopting best practices from operators around the world and from industry organizations, including the IAEA, WANO, and INPO.

The design, siting, construction, operation, and decommissioning of nuclear energy plants as well as the use of all radioactive material and radiation sources is regulated by FANR. All activities across ENEC comply with the FANR's core values of safety awareness and responsibility, competency, independence, and transparency. All procedures and programs in place are aligned with FANR requirements.

Health and Safety Engagement and Awareness

To improve the levels of health and safety within our organization and achieve zero incidents, it is crucial to directly engage with all employees, contractors and subcontractors and raise their awareness about health and safety matters. A wide range of health and wellbeing engagement and awareness sessions are conducted for our employees every year, both onsite and at the HQ. In 2020, the following health and safety related activities were executed:

Workplace and Wellness Programs

- Food Safety and Accommodation Inspections: At Barakah NPP we continue to conduct regular food safety and accommodation inspections in accordance with the applicable food safety and accommodation procedure. The inspections were diligently conducted and were vigilantly monitored by representatives from DoH (Department of Health) and ADAFSA (Abu Dhabi Agriculture and Food Safety Authority).

- Hand washing campaign: This campaign was merged with COVID-19 prevention measures to prevent workers from being contaminated and educating them on best practice to continuously ensure hand hygiene.

Medical Screening and Assessments:

- Ongoing COVID-19 awareness sessions
- Provision of additional blood pressure monitors that were distributed across the Barakah NPP: Blood pressure monitors were stationed across movement control offices.

Health and Safety Campaigns and Programs:

- A Road Safety Campaign including vehicle and driver safety assessments were implemented with pedestrian and driver awareness videos released to promote safe road behaviors and improve the road safety culture within the Barakah NPP premises. Road safety inspections and speed gun monitoring was implemented to capture road safety offences for corrective action. The campaign also covered topics concerning the enforcement of one-way traffic management, promoting the use of crosswalks, and preventing employees from leaving their vehicles with idle engines.
- Physical Health and Safety Campaigns, covering the following topics:
  - Dynamic learning activities covering the topics of coaching and housekeeping, ladder safety and electrical safety.
  - Weekly safety messages distributed to all personnel supported by educational videos with examples of acceptable and unacceptable behaviors.
- Cat Capture Program was initiated in 2019 across the Barakah NPP in coordination with external professionals to ethically control and manage the increased feral cat population in the area. The program continued in 2020 for three months and a total of 132 cats were captured and handed over to animal welfare contractor IRSHAD, a contractor of TADWEER in Abu Dhabi.
- eLearning modules on construction safety, HSEMS awareness training, HSES fundamental awareness, accommodation safety, hazard identification, incident reporting, road safety and safety observation program.
- Health safety fundamentals and Plant Access Training modules to improve the level of awareness among employees.
- Other HSE eLearning awareness modules include construction safety, Health, Safety and Environment Management System (HSEMS), accommodation safety and hygiene, hazard identification, incident reporting and investigation, road safety, environment, and sustainability, first aid, emergency floor warden, health and safety permits and job hazard analysis, working at height, atmospheric evaluation, heat stress, confined space fundamentals and safety observation program.

Security

We work closely with the Critical Infrastructure and Coastal Protection Authority (CICPA), the Abu Dhabi Government agency tasked with handling the protection and security of vital assets and infrastructure, including the Barakah NPP. Under the regulation of FANR and with guidance from the IAEA, CICPA has developed and implemented the highest international security standards for the Barakah NPP.

The security teams across ENEC and subsidiaries are responsible for implementing the FANR-approved Physical Protection Plan (PPP) for construction. The PPP for construction addresses the protection of nuclear materials and the nuclear facility against malicious acts, such as the unauthorized removal of nuclear material.

An additional FANR-approved Physical Protection Plan for Operation (PPP-O) addresses the organizational structure and staffing of security, the plant physical protection, including the designation of protected and vital areas, guard training and qualification, information security, cybersecurity, and responses to security contingencies including preparedness for concurrent nuclear safety-related emergencies and security threats. The PPP-O provides assurances that physical protection strategies will neutralize any threats and seeks to ensure that the nuclear facility is protected from malicious acts and radiological sabotage.

Emergency Preparedness

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.

Emergency Preparedness and Response at ENEC HQ

ENEC HQ office in Abu Dhabi has established, implemented, and maintained robust emergency response process to prepare and respond to potential emergencies as per the regulatory requirements of UAE Fire and Life Safety Code of Practice and OSHAD SF Element 6 – Emergency Management. Headquarters Emergency Response and Evacuation Plan defines the emergency setup, organization, procedures, responsibilities, and arrangements as well as planned response to emergencies that may occur in the building. The established emergency response program includes training for First Aiders, Fire Wardens, Security staff, facility management and other members of the emergency response team on their roles and response capabilities.

A complete understanding of the emergency procedures by everyone in the building is essential for the Emergency Plan's success and is achieved through online HSE and Emergency Response training, which is mandatory for all employees, contractors, and service providers on annual basis. In addition to that, Emergency Evacuation layouts for each floor with marked evacuation routes and location of emergency response equipment are placed in prominent locations throughout the building. Emergency response leaflets are available in all meeting rooms in Arabic and English and shared with visitors at the reception and in meeting rooms.

ENEC Facilities Support Services department is the responsible custodian of the Annual Maintenance Plan to maintain all fire and life safety equipment in all ENEC buildings including Headquarters' office. Corporate HSES department ensures all regulatory requirements are met with respect to fire safety and emergency preparedness conducts regular assessments.

Practicing evacuation and emergency procedures during non-emergency drills provides training that will be valuable in an emergency. In 2020 despite the pandemic, two evacuation drills were conducted in ENEC HQ, in which all pandemic precautions were effectively practiced as well. In addition, emergency responders who were called out to work in the office were trained on their roles as per the annual training plan.

Following observations of women wearing high-heeled shoes when evacuating the building and understanding of the risks it may cause, the Corporate HSES team with Women in Nuclear representatives (WiN) ran the 'Flats Only' campaign in January 2020. The campaign lasts for one month, during which female employees were encouraged to avoid wearing high-heeled footwear, and instead opt for safer footwear, in the case of emergency evacuation.

COVID-19 Response

At a time when coming together is more challenging than ever, it is essential that we stay informed and connected and at the same time comply with national restrictions and requirements relating to COVID-19. We established a group of COVID-19 Ambassadors at Barakah NPP and HQ, with strong leadership and communication skills. The group was trained and coached on promoting COVID-19 preventive control measures in the organization.

In relation to the COVID-19 pandemic, emergency preparedness drills and exercises were challenged and during first and second quarter of 2020, scheduled drills were cancelled. Nawah's Emergency Preparedness established a normal regime by resuming virtual workshops for the Emergency Response Organization to ensure proficiency in performing Risk Significant Planning Standards activities prior to initiating operation of Unit 1. In Q3 and Q4 of 2020, we re-established a normal roster regime while respecting all the measures and controls implemented because of COVID-19 and performed three full scale drills in Emergency Response facilities while captivating safety norms. The scope of drill activities entailed the participation of the Technical Support Center (TSC), Operations Support Center (OSC), Emergency Operations Facility (EOF), Fire response, Incident Management Team integration, and Medical response. The overall Emergency Response Organization (ERO) performance was evaluated as satisfactory. Deficiencies, weaknesses, and improvement opportunities were identified and are being addressed in a formal process.

Barakah Emergency Preparedness Program

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

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

- Onsite Emergency Preparedness.
- Offsite Emergency Preparedness.
- All Emergency Response Equipment and Facilities.
- Emergency Response Training.
- Drill and Exercise Programs.
- Barakah Emergency Plan and associated Implementing Procedures.

The ability of Nawah to respond to a radiological emergency at the Barakah NPP in a timely and effective manner must be periodically demonstrated to obtain, and maintain, its operating license from FANR. Emergency Drills and Exercises Program involves the scheduling of drills and exercises at periodic intervals to test the effectiveness of Nawah's Emergency Response Plan, and its procedures, which include emergency communications, the timely response of the Emergency Response Facilities, the adequacy of emergency response resources, and the coordination between the various agencies involved.

This year, the Emergency Preparedness Drills and Exercises Program was challenged by the COVID-19 pandemic restrictions. During the first half of the year, several scheduled drills were cancelled in adherence to the company directives to curtail the spread of the virus. Nevertheless, Nawah's Emergency Preparedness established virtual workshops for the ERO to ensure their proficiency in performing Risk Significant Planning Standards activities prior to initiating operation of Unit 1. In the second half of 2020, three full-scale drills were performed in Emergency Response Facilities while taking safety of participants into great consideration. The overall ERO performance was evaluated as satisfactory, based on the Barakah Objectives and Demonstration Criteria for Drills and Exercises. Deficiencies, weaknesses, and improvement opportunities were identified and are being addressed in a formal process.

In line with our ENEC Strategy 2020-2024 and commitment to safe and secure operations of Units 1 and 2, Nawah has thoroughly tested and continues to work closely with FANR, local stakeholders, the IAEA, and international nuclear experts to ensure that their Emergency Preparedness and Response Program adheres to the highest international standards.

To meet the agreement that has been made with FANR, the Emergency Preparedness and Response program was upgraded to respond to both a single unit event and a multi-unit event. This includes upgrading emergency plans, procedures, emergency facilities, and ERO training and drills and exercise program. Key Performance Indicators, as described in Nawah's Business Plan, are implemented, and closely monitored to ensure that all aspects of the Emergency Preparedness and Response Program are maintained to the highest levels. Additionally, the onsite emergency plan includes assessment criteria and protective actions to return the plant to a stable condition in case of radiological emergencies.

Business Continuity Management

BCM Program Organization and Scope

ENEC and its subsidiaries ensure alignment through a single BCM program. From the construction and commissioning phase (which was the focus of activity from 2009 through 2020) to operation and maintenance of the four units at Barakah NPP (which will be the focus of activity from 2021 through 2081).

BCM Program Compliance and Reporting

ENEC is required by Article 19 ("Ensuring Business Continuity") in Federal Decree-Law No. (2) of 2011 to develop plans that guarantee Business Continuity in accordance with the UAE National Standard for BCM – NCEMA 7000.

To ensure consistency in implementation and internal reporting of the BCM compliance across the ENEC and its subsidiaries, the Business Continuity and Resilience (BCR) Department, working in collaboration with ENEC Business Ethics and Compliance, developed a Business Continuity Compliance Register documenting the specific requirements of NCEMA 7000.

Additional reporting is done internally against requirements in the International Standard for Business Continuity Management: ISO 22301. Compliance with ISO is assessed using a Business Continuity Management Matrix, developed by the Corporate Management Systems Group with technical support from the Business Continuity and Resilience Department.

External reporting of BCM compliance is also undertaken to the GSEC for the government of Abu Dhabi in accordance with GSEC Circular No. (04) of 2014, "Concerning Business Continuity Management". ENEC's BCM Program implementation reports to GSEC are based on compliance with NCEMA 7000.

Other external entities which request and receive reports and assessments on BCM implementation within ENEC and its subsidiaries include ADQ and the DoE. ADQ is the holding company for a broad portfolio of major enterprises in key sectors of Abu Dhabi's economy, including ENEC. The DoE is the Sector Regulatory Authority which issues the license for Barakah One Company to generate electricity at the Barakah Plant.

BCM Accomplishments in 2020:

In 2020, the BCM Department achieved the following accomplishments, in line with its key objectives as outlined in the BCM Program.

- **ENEC BCR Virtual Forum for Key Internal Stakeholders** – The BCR Department hosted the inaugural ENEC Business Continuity and Resilience Forum for BC Plan and Process Owners, Business Continuity Coordinators and Champions.

- **Corporate Partnership with the Business Continuity Institute (BCI)** –The BCR Department established a corporate partnership with the BCI, one of the premier organizations for international professional certification and training in Business Continuity Management. The objective is to establish a strategic relationship and provide a basis for the exchange of BCM awareness and training materials which will allow BCR Department personnel to deliver BCI courseware within the Enterprise at times and locations best aligned with the operational needs and schedules of our employees.

- **Tests and Exercises** – The BCR Department conducted Business Continuity and Incident Management exercises during 2020. Key learnings were captured in test and exercise reports and actions for continuous improvement.

- **BCM Benchmarking with Other Government Entities** – The BCR Department received benchmarking visits from two government entities in 2020, which included ADNOC's business risk management group and the Abu Dhabi Centre for Technical and Vocational Education and Training (ACTVET). Both visits involved follow-up discussion, information sharing and cross-program knowledge transfer.

- **Establishment of an IIER Framework** – The BCR Department developed a new framework to integrate Incident Management resources, processes and documentation across the Corporate Headquarters, Barakah Site and Korea Affairs Office. The name chosen for the new program which implements the new framework was IIER. The IIER aligns activities of the response and incident management teams in the Emergency Response Organization at the Barakah NPP, the HSE Building Emergency Response teams, the HQ and Barakah NPP Site Incident Management teams, the Crisis Management team, and BCM teams across ENEC and its subsidiaries.

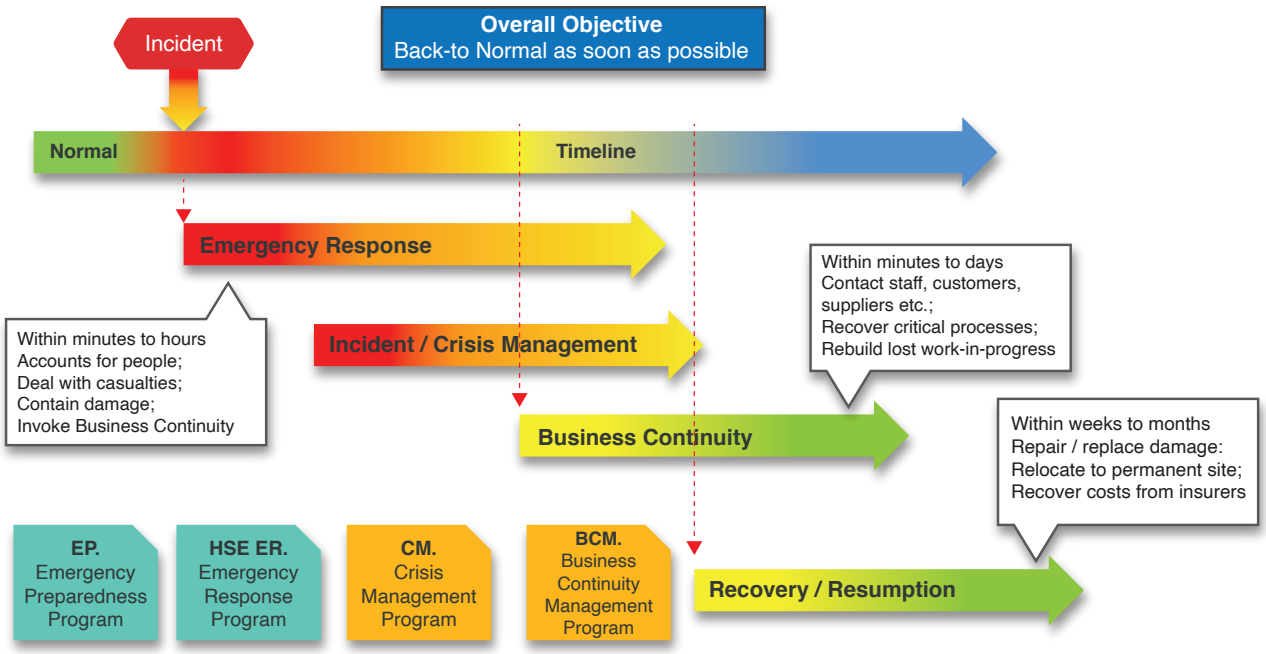


Figure: a high-level timeline for emergency response, incident management and return to normal operations by teams involved in IIER process.

6.4 Quality, Efficiency and Reliability

The Integrated Management System (IMS) is a framework that helps us meet our goals and objectives while maintaining a focus on safety, security, and quality.

IMS Accreditations
https://www.enec.gov.ae/about-us/leadership-and-governance/international-standards-and-certifications/

As part of our commitment to safety, security, and transparency, we established a rigorous Quality Assurance (QA) program to ensure that the UAE's first nuclear energy plant is designed, constructed, commissioned, and operated in line with best industry practices, governing codes and standards, regulations, and license requirements.

The aim of the QA program is to ensure that our overriding priority – the safety of the UAE community, our employees, the environment, and our future plants – is achieved every day. Our QA program is applied to all aspects of our work, and we conduct regular training sessions, assessments, and audits. The QA program applies to all our contractors and subcontractors across the entire supply chain.

By extending the QA program to all our activities, we aim to achieve the highest standards of safety, quality, availability, and reliability. In 2020, we dedicated over 22,500 person-hours to quality audits for all aspects of the program.

Like our philosophy on safety, we believe that everyone is responsible for quality, and it is this approach that will drive continual improvement in everything we do. We conduct regular audits of the IMS framework and QA program to ensure high standards are being met and continuously improved upon. During 2020, we conducted 45 internal and external QA audits on all aspects of the IMS framework and QA program. These include 13 internal and 14 external (supplier) QA audits, as well as 18 assessments of the IMS framework. We also undertook an external audit related to maintaining ISO certifications, which include:

- ISO 45001:2018 Occupational Health and Safety Management Systems.
- ISO 9001:2015 Quality Management Systems
- ISO 14001:2015 Environmental Management Systems
- ISO 22301:2012 Business Continuity Management Systems
- ISO 27001:2013 Information Security Management Systems
- ISO 20000-1 Information Technology Service Management System.

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

6.5 Environmental Management

ENEC is dedicated to minimizing the environmental footprint from the construction, operation, and eventual decommissioning of the Barakah NPP across ENEC and our subsidiaries, including the Prime Contractor.

While the current focus is still on reduction and mitigation during the construction phase, one of the key environmental advantages of a nuclear energy plant is that it produces electricity with almost zero carbon emissions. This makes the Barakah NPP a key component in the UAE's aspirations to increase its clean energy generation, reduce its carbon footprint and achieve international commitments made as part of the Paris Climate Change Agreement.

> "The four units that comprise the Barakah NPP will form an integral part of the UAE's plan to cut the carbon footprint of electricity generation by 70% over the next 30 years. Once operational, the Barakah NPP will save up to 21 million tons of carbon emissions annually, the equivalent of taking more than three million cars off the streets every year."
>
> **H.E. Eng. Mohamed Al Hammadi**, Chief Executive Officer of ENEC

Environmental Management Approach

Protection of the environment has been a key consideration since day one of the project. Selection of an appropriate site for the plant factored in environmental considerations, and construction commenced once environmental studies were completed and licenses were granted by the Environment Agency – Abu Dhabi (EAD). ENEC's activities, both construction and operation, are aligned with the EAD requirements and conditions which are regularly audited and evaluated.

Throughout the construction process, monthly monitoring and reporting on the natural environment, and the environmental performance of the entire project have been completed in accordance with the EAD permit conditions, which aligns with national environmental regulations.

To ensure our commitment to protect the environment, ENEC developed an EAD-approved Construction Environmental Management Plan (CEMP) and an Operational Environmental Management Plan (OEMP) for all contractors and subcontractors to abide by, which are audited annually. This ensures that all activities adhere to the environmental permits issued by the EAD.

ENEC's Environmental Management System (EMS) is ISO 14001:2015 re-certified. In 2020, zero significant or reportable environmental incidents, and zero breaches of environmental regulations or environmental permit conditions were recorded. The EAD inspections carried out at the Barakah NPP resulted in zero findings in 2020.

ENEC also developed the Barakah Environment and Sustainability Charter – an agreement co-signed by ENEC and KEPCO to demonstrate a commitment from the Prime Contractor to minimize the impact from construction on the natural environment. The Charter sets out a series of obligations to ensure that activities are carried out in an environmentally conscious manner throughout the construction and operation stage.

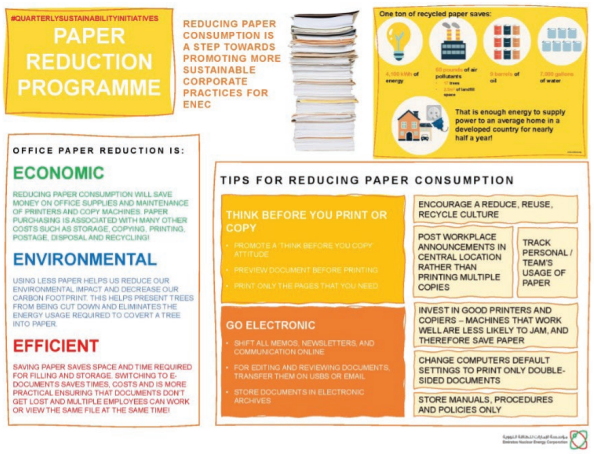
Site Selection and Licensing:
https://www.enec.gov.ae/barakah-plant/site/

Quarterly Sustainability Initiatives at ENEC

Every quarter, ENEC launches a corporate sustainability initiative aspired to implement meaningful change across the organization and mindset of our employees. ENEC's sustainability initiatives aim to drive changes to lessen our impact on the planet. In 2020, we held the following quarterly initiatives:

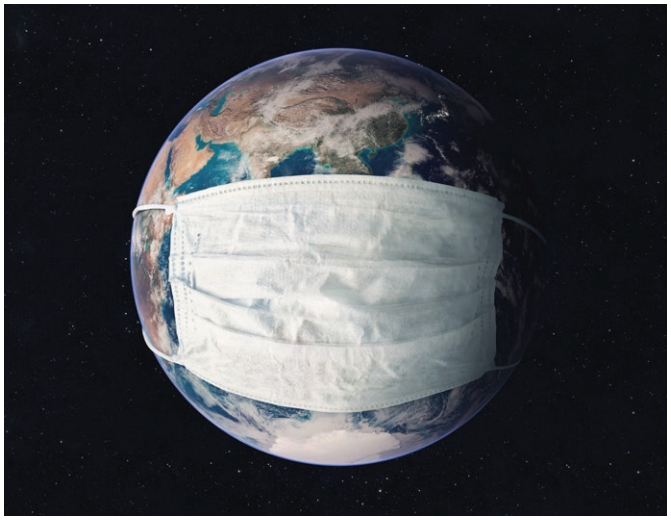
Q1 2020: Save Paper, Save the Environment – Paper Reduction Campaign at ENEC

Mindful of our paper consumption at ENEC, we promote an attitude where staff are trained to print only when necessary. Each department's paper consumption is tracked on a regular basis. This limits paper consumption as well as pushes for a digital document management. Documents are also encouraged to be stored and transferred electronically. High quality printing hardware is purchased and installed to further reduce printing waste.



ENEC launched eSign, a Digital Signature application for digital signatures in collaboration with Emirates Integrated Telecommunications Company (EITC), assisting in reviewing and signing documents from anywhere, anytime, on any device. The benefits derived from the application are plentiful as eSign enables ENEC to reduce time and costs associated with traditional signatures while also supporting the transition to a paperless environment, consistent with the UAE Paperless Strategy.

Q2 2020: COVID-19 Impacts on Climate Change: GHG Emissions at ENEC



The ongoing COVID-19 pandemic has caused global disruptions, including an abrupt reduction in driving, flying and industrial output. Subsequently, it has caused a reduction in CO^2 emissions across the globe. As a result, ENEC was able to recognize its milestone for reducing carbon emissions from its activities. Comparing April 2019 with April 2020, ENEC achieved a 47% reduction in its electricity consumption and an 87% reduction in its fuel consumption. The remarkable decrease resulted in an 87%, 47% and 87% reduction across ENEC's scope 1, scope 2 and scope 3 emissions, respectively.

Q3 2020: Save energy, save the environment – Electricity Conservation Campaign at ENEC

Aiming to reduce electricity consumption, we encourage our staff to follow electricity saving measures both inside the office and in their homes. ENEC has installed occupancy sensors programed to switch off lights when not in use. Traditional lighting was replaced with LED lighting, along with the installation of programmable thermostats set at 24 degrees Celsius. Employees are encouraged to be mindful of switching off all electric appliances and computers when not in use.

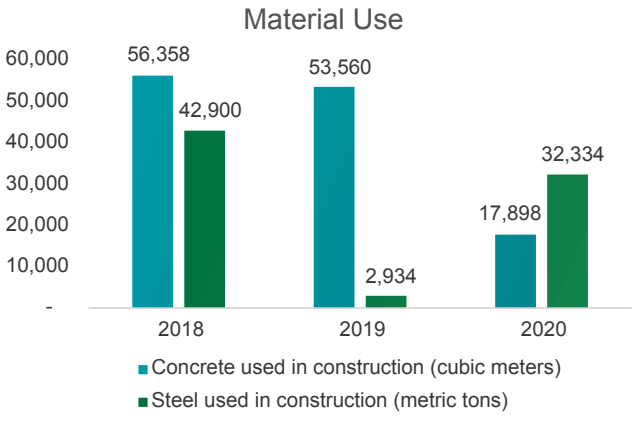
Q4 2020: Every drop counts- Water Conservation Campaign at ENEC

ENEC's water conservation awareness campaign is intended to not only motivate but encourage ENEC staff to be conscientious towards water consumption both at home and at the workplace. The campaign is aligned both with the United Nations Sustainable Development Goals and the UAE Vision 2021.

Material Use

The construction of a nuclear energy plant requires significant amounts of material input, primarily nuclear-grade concrete, and steel that are vital to the safety and reliability of the plant.

Beyond the large amounts of material required for construction, we track the consumption of office-based materials such as paper, plastic water bottles and printer cartridges.



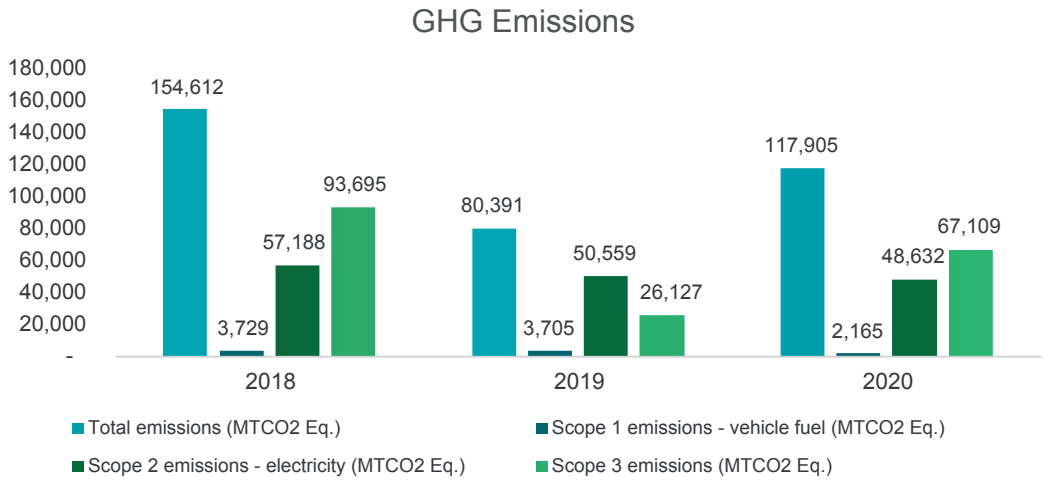
GHG and Air Emissions

Electricity generation has traditionally been a high GHG emitting activity arising from the combustion of fossil fuels. Nuclear energy is a near zero-emission form of electricity generation, and once the Barakah NPP is operational, it will help the UAE meet its voluntary commitment under the Paris Climate Change Agreement.

We take a lifecycle approach to the measurement and accounting of GHG emissions. This means we track direct and indirect emissions from the construction and operation of the plant (including the sourcing of fuel) and its future decommissioning.

- Scope 1 emissions are generated from the burning of fossil fuels, e.g. petrol and diesel used for heavy machinery, generators, and light vehicles.
- Scope 2 emissions are generated from the use of electricity and are known as 'indirect' since energy plants elsewhere generate the actual emissions.
- Scope 3 emissions are known as 'other indirect emissions' since they occur outside the boundaries of the organization in the supply chain and come from the provision of products and services. At present, this is the largest source of emissions due to the procurement of large quantities of concrete and steel for which our suppliers use highly energy-intensive processes.

This year, ENEC revised its GHG emission factors to reflect the latest 2020 emission factors for the UAE. Total GHG emissions amounted to nearly 118,000 metric tons Carbon Dioxide equivalent (*MTCO2* Eq). Although this appears to be increasing, it remains well below our 2018 GHG emissions. Last year, our emission drop was mainly due to the low usage of materials for construction, i.e., steel and concrete as the construction of Unit 2 was near completion. This year, we progressed heavily in terms of the construction of the remaining units, and as such, our scope 3 emissions increased.



Scope: ENEC, Nawah, Barakah One Company and KEPCO

GHG emission factors have been updated for 2020.

GHG Emissions			
Year	**2018**	**2019**	**2020**
Emissions intensity (MTCO2 Eq./person) *	10	6	13**

Scope: ENEC, Nawah, Barakah One Company and KEPCO
** Intensities calculated using total number of employees and contractors.*
***Increase in 2020 due to the increase of scope 3 emissions, primarily due to increase of steel consumption during construction.*
GHG emission factors have been updated for 2020.

GRI 2016: 102-48

Energy and Water Management

Energy and water resources are required in large quantities during the construction of the plant, for worker accommodation and offices. ENEC works together with our subsidiaries and contractors to ensure the resources are used efficiently and with minimal waste, especially since water is a scarce resource in the region. On a monthly basis, water and energy targets are set for consumption and monitoring. In addition, an annual water and energy conservation campaign is conducted with awareness sessions and with brochures distributed to employees and contractors. In 2020, over 1,345 contractor personnel attended awareness sessions.

ENEC HQ, located in Masdar City, has been awarded level 4 Pearl Rating by Estidama Pearl Rating, the green building rating system to evaluate sustainable building development practices in Abu Dhabi. The building was designed with the latest technologies, enabling energy conservation.

Energy

Most of the energy used is in the form of indirect energy, which includes electricity for lighting, equipment, and ancillary buildings and is sourced from the national grid. Large quantities of direct energy are also used in the form of fuel for the operation of vehicles and heavy machinery for construction activities and transportation of personnel.

Total energy consumption was reduced by over 20% from 2019. This reduction is primarily the result of the construction project reaching completion. Direct energy consumption decreased by 43% because of reduced fuel (petrol and diesel) consumption as the COVID-19 circumstances limited transportation and travel. Similarly, indirect energy consumption also decreased by 16%, as the number of contractor and subcontractor employees living and working onsite continued to decrease in 2019 due to demobilization.

Energy			
Year	2018	2019	2020
Total energy consumption (Gigajoules – GJ)	404,637	364,401	290,311
Energy intensity (GJ/person) **	27.25	28.90	31.89
Direct energy (GJ)	55,042*	55,328*	31,325
Indirect energy (kilowatt hour – kWh)	97,109,882	85,853,503	71,940,689
Indirect energy (GJ)	349,595*	309,072*	258,986

Scope: ENEC, Nawah, Barakah One Company and KEPCO
**Numbers have been restated*
*** Intensities calculated using total number of employees and contractors*

Water

Water is primarily used for mixing concrete, in worker accommodation, irrigation, dust suppression, and by employees based in office buildings in Barakah and Abu Dhabi. Fresh water is sourced from the Shuweihat Desalination Plant and the potable water mains network, and water used for irrigation and dust suppression is obtained from the onsite treatment of sewage to standards set by the Department of Energy and verified by monthly laboratory testing. Targets for water consumption and monitoring are set on a monthly basis.

GRI 2016: 102-48

The amount of water used across all facilities, as well as the construction site increased by 54% compared to last year. This increase is primarily due to the COVD-19 circumstances wherein site restrictions and lockdowns have resulted in onsite staff to remain in their accommodation as well as the increased frequency and requirements do cleaning and disinfections to be undertaken across accommodation facilities as well as onsite. We are aware that water is a precious and scarce resource in the region, and we therefore take water efficiency actions very seriously.

Water			
Year	2018	2019	2020
Total water consumed (cubic meters)	1,687,146	1,302,190	2,005,169
Water Intensity (cubic meters/person) *	113.63	103.28	220.28

Scope: ENEC, Nawah, Barakah One Company and KEPCO

** Intensities calculated using total number of employees and contractors*

Wastewater

Wastewater produced on the construction site consists primarily of greywater, sewage from the housing of the large construction workforce, and other hazardous liquid waste such as oils and paint. All wastewater, both hazardous and non-hazardous, is being recycled either onsite or offsite.

In 2020, 100% of the non-hazardous wastewater was treated onsite in accordance with DoE Recycled Water Policy and then used for irrigation (30%) and dust suppression (70%). Hazardous liquid waste is 100% recycled by qualified and certified third-party contractors.

Wastewater			
Year	2018	2019	2020
Wastewater recycled offsite (million liters)	134	17	1
Wastewater recycled onsite (million liters)	1,546	1,218	927
Percentage of wastewater recycled onsite	92%	99%	100%
Hazardous liquid waste disposed (liters)	0	0	0
Hazardous liquid waste recycled (liters)	103,601	93,078	75,014

Scope: Nawah, KEPCO

Waste

Significant quantities of waste are an expected output from one of the largest construction projects in the world. Together, with the Prime Contractor and our subsidiaries, we developed and implemented a comprehensive waste management program. Capacity building on waste management is a key element of our strategy. In 2020, offsite recycling ended as sufficient we had capacity within Barakah NPP to treat all sewage and we carried out a total of 12 waste segregation inspections to ensure that subcontractors are appropriately managing their wastes.

A total of 75,014 liters of waste used oil was generated. No liquid chemical waste was collected during the year 2020. All waste oil was transported using Abu Dhabi Center of Waste Management (Tadweer)-approved third-party waste management contractors for treatment and recycling.

We track all waste streams to document the chain of custody and monitor volumes against planned targets.

Non-hazardous Waste

Most of the non-hazardous waste takes the form of construction materials. Waste being collected from the HQ and Barakah NPP, which is segregated, is recycled at much higher levels. This year, our non-hazardous waste generation was reduced by 31% – of which 57% was recycled.

Non-hazardous Waste			
Year	2018	2019	2020
Non-hazardous waste disposed (metric tons)	59,668	8,850	6,082
Non-hazardous waste recycled (metric tons)	4,930	19,339	7,952
Percentage of total non-hazardous waste recycled	8%	69%	57%

Scope: ENEC, Nawah, Barakah One Company and KEPCO

Hazardous Waste

Hazardous waste is created onsite during the construction process. Over the past three years, no hazardous waste was disposed to landfill in 2020. We recycle hazardous waste through an arrangement with Tadweer.

Hazardous Waste			
Year	2018	2019	2020
Hazardous waste disposed (metric tons)	0	0	0
Hazardous waste recycled (metric tons)	75	10	10
Percentage of total hazardous waste recycled	100%	100%	100%

Scope: ENEC, Nawah, Barakah One Company and KEPCO

Biodiversity

While impacts on the natural environment are inevitable for a project of this size, major efforts on behalf of the ENEC and its subsidiaries are made to reduce, mitigate, or compensate biodiversity impact. Some of the most significant challenges relating to impacts on biodiversity identified include marine habitat loss, species displacement and marine sediment quality impacts due to cooling water intake, discharge, and minor spills affecting seawater and soil.

Marine Wildlife Management

In 2020, a total of 60 hawksbill turtles, two green turtles and one loggerhead turtle were rescued. Sea turtle rescues at Barakah NPP commonly occur during the winter months when water temperature drops, and turtles become sick. All rescued sea turtles were handled by Nawah in a turtle holding facility before transported to Dubai Turtle Rehabilitation Project (DTRP) facility in Burj Al Arab, Dubai and the National Aquarium, Abu Dhabi for treatment and rehabilitation.

Coral Translocation and Fragmentation

A coral monitoring, covering both summer and winter periods, continued to be conducted to assess the condition and status of the translocated coral fragments and colonies undertaken by the EMEG in 2020.

Radiological Monitoring Laboratory

Nawah's Environmental Radiochemistry Laboratory started operating in August 2014 to establish a background radiation baseline for the Barakah site, in accordance with the Radiological Environmental Monitoring Program (REMP) section of the Offsite Dose Calculation Manual (ODCM). The Lab sends semi-annual reports to FANR, containing the results of radiological tests performed on samples including soil, sediment, fish, invertebrates, air, drinking water, and seawater. Test results have been reported for 2020 and all results indicate that radiation levels are within acceptable limits.

7

EMPOWERING OUR PEOPLE

The UAE Peaceful Nuclear Energy Program will provide high-value jobs, while also bringing new knowledge and expertise to the country. The Program represents an opportunity for talented and highly skilled UAE Nationals to become leaders in a rapidly growing and international sector.

7.1 Overview

Thousands of highly skilled individuals with a wide range of knowledge, expertise, and training, have come together as a team to construct and operate the Barakah NPP. As the first project of its kind in the region, we have drawn from the best national and international talent while simultaneously investing heavily in the creation of knowledge through highly specialized nuclear energy education and training programs for UAE Nationals.

Sustainability Objectives

Our knowledge and employment sustainability objectives include:

1 **Our workforce** – to generate jobs, recruit, and retain high-quality people within ENEC and the nuclear energy sector.

2 **National talent development** – to develop UAE National talent for employment at ENEC and in the nuclear energy sector.

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

SDG Targets Addressed

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

Sustainability Value Pillar	Sustainability Aspect	UN SDG Addressed
Empowering our People	• Our Workforce • National Talent Development • Knowledge Creation	

UN SDGs Addressed	
	**Increase the number of people with relevant skills for financial success** By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs, and entrepreneurship.
	**Ensure full participation in leadership and decision-making** Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic, and public life.
	**Full employment and decent work with equal pay** By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value.
	**Promote youth employment, education, and training** By 2030, substantially reduce the proportion of youth not in employment, education, or training.

7.2 Our Workforce

ENEC and its subsidiaries strive to be the employer of choice, recruiting and retaining highly skilled talent from the UAE and around the world, providing them with an open and engaging work environment to perform at their best. Encouraging women to join the nuclear sector is also a key priority, with initiatives such as, Women in Nuclear (WiN) that supports current and future female employees.

Workforce Profile

Our workforce is comprised of the highest caliber of professionals and specialists who are helping to deliver one of the largest nuclear energy projects globally, and one of the most strategically significant projects in UAE history. In total, we have a proud workforce of 2,846 employees.

The workforce has representation from over 40 nationalities, with most employees coming from the Middle East and North Africa. We have also employed 752 young people (ages 18-30 years), contributing to national goals and targets for youth employment.

Workforce Profile			
Year	2018	2019	2020
Total number of employees	2,926	3,111	2,846
By Gender			
Female	516	522	511
Male	2,410	2,589	2,335
By Age			
18-30	859	818	752
31-50	1,428	1,625	1,487
51+	639	668	607
By Nationality / Region			
Middle East and North Africa	1,498	1,538	1,549
Africa	93	109	123
Americas	474	539	508
Europe / EU / Turkey	253	263	280
Asia / Australia / New Zealand	608	662	386

Scope: ENEC, Nawah and Barakah One Company

Recruitment and Onboarding

Recruiting capable professionals is essential to achieving our organizational strategy; quality control measures are in place that provide for merit-based recruitment.

The rapidly growing workforce directly impacts the economy through spending of wages and benefits, which in turn indirectly supports job creation in other sectors. There is also an additional indirect impact as many expat employees relocate with their families, spurring further economic activity within the UAE.

In 2020, 208 employees were recruited, including 47 UAE Nationals, 22 women and 40 young people (ages 18-30 years). All new employees undergo a rigorous induction program entitled 'Becoming a Nuclear Professional'. This training covers our regulatory requirements, safety culture, radiological restrictions, and risks, as per the corporation's policies, procedures, and internal systems.

Recruitment			
Year	**2018**	**2019**	**2020**
Number of employees hired	463	375	208
By Gender			
Female	79	44	22
Male	384	331	186
By Age			
18-30	121	93	40
31-50	214	199	94
51+	128	83	74
By Nationality / Region			
UAE Nationals	150	92	47
Other Nationals	313	283	159

Scope: ENEC, Nawah and Barakah One Company

Careers at ENEC
https://www.enec.gov.ae/careers-and-scholarships/careers/

Engagement and Satisfaction

Strong employee engagement helps to ensure high levels of employee satisfaction, retention, and productivity, all of which support the achievement of ENEC's vision, mission, and corporate strategy. During 2020, employee engagement surveys to measure the level of satisfaction among the employees of ENEC and its subsidiaries were carried out. This year, the average employee satisfaction across ENEC was 71%. The surveys are intended to identify areas of improvement and to set a target for improvement annually.

Across ENEC implemented an employee assistance program to support our employees to resolve personal problems that are detrimental to their health and wellbeing, and those that may affect their performance at the workplace. The COVID-19 circumstances resulted in challenges to our employees' wellbeing both health-wise and mentally, as such we adopted the flexible and remote working approach to ensure the wellbeing of our employees with regular communication and use of technological solutions for voice and video calls. Employee membership to fitness centers are still being provided.

Despite the economic challenges of COVID-19, we have provided our full efforts to limit turnover and support all employees. This year, employee turnover rate was 7.4%, with 211 employees leaving the company. Keeping attrition rates low enables retention of knowledge and expertise. Exit interviews are undertaken to review the primary reasons for leaving to improve internal processes, where applicable. In 2020, an Employee Retention Strategy was implemented which included Individual Development Plans (IDPs) for all employees.

Retention			
Year	**2018**	**2019**	**2020**
Total employee turnover rate	3.7%	5.4%	7.4%
Number of employees that left ENEC (forced or voluntary)	108	168	211
By Gender			
Number of male leavers	83	128	185
Number of female leavers	25	40	26
By Nationality			
Number of UAE National leavers	46	45	47
Number of expatriate leavers	62	123	164

Scope: ENEC, Nawah and Barakah One Company

Employee Concern Program

To enhance a work environment that supports and encourages all employees, contractors, and subcontractors, Nawah established an industry best practice Employee Concern Program (ECP), where they are able to identify and disclose nuclear safety and quality concerns without fear of retaliation.

The Employee Concerns Program is an independent system for reporting nuclear safety and quality concerns. It is designed to encourage open communication and to ensure employees can raise nuclear safety or quality issues without fearing harassment, intimidation, retaliation, or discrimination (HIRD). The ECP addresses nuclear safety and quality concerns in a timely and objective manner and acts as an alternative and anonymous system for reporting nuclear safety concerns. In 2020, a total of 282 cases pertaining to consultations, investigations, Off boarding interviews and referrals were handled by ECP.

The ECP is a first of its kind program in the UAE and supports a Safety Conscious Work Environment (SCWE). SCWE is a fundamental principle in maintaining a strong nuclear safety culture. The program relies on employees and contractors to identify and report nuclear safety issues as well as issues impacting plant's programs, processes, and performance. A strong SCWE supports the goal of adopting a strong Nuclear Safety Culture. It encourages personnel to raise any nuclear safety concern such as:

- Problems with the safety, design, operation, maintenance, management, or construction of the Barakah plant,
- Treatment of individuals by their supervisor, manager, or peers.

Mentorship Programs

This year, the Talent Management team developed the Mentoring Program, which supports the line managers and designated mentors in taking a consistent approach to the process of mentoring employees who are likely to benefit from development support. By offering mentorship, ENEC increases performance by developing, motivating, and retaining talent.

Annual Reviews

Annual Performance Reviews are extremely important across the ENEC and its subsidiaries ensuring employee awareness and understanding, it identifies the employee's areas of strength and development by eliminating factors and conditions that keep an employee from performing effectively.

Talent Management Framework

Employees are the most valuable asset and the competitive advantage of ENEC and its subsidiaries. This year, our Talent Management team developed the Talent Management Framework, which supports the ENEC Strategy 2020-2024 in developing and maintaining a capable and engaged workforce.

The framework comprises of eight Talent Management practices that are broad, resourceful, enabling and are spread across employee lifecycle. The practices include strategic workforce planning, talent identification, talent acquisition, talent integration, career management and talent development, performance, recognition and rewards management, talent risk management, and talent analytics, automation, and process optimization.

Knowledge Transfer Framework

The knowledge transfer mission is to maintain a knowledgeable and skilled workforce with a focus on sustainable and continuous development of UAE nuclear professionals and leaders.

All nuclear plant operating organizations have programs in place to capture, store and retrieve much, if not all, of the information/knowledge. Therefore, for implementing knowledge transfer, the knowledge management approach is applied through:

1. Identifying business, operational and safety risks due to knowledge gaps (such as knowledge loss risk assessment to identify where the organization is most at risk of losing mission-critical knowledge).
2. Effective transfer of knowledge from an ageing workforce to younger workers; and improved strategic planning and decision-making resulting from access to more, and more reliable knowledge/information.

Leadership Development Program

The Talent Management team developed a Leadership Development program to establish and sustain a world class leadership development program by encouraging individual self-development to meet regulatory requirement and business challenges.

Five ladder structure of leadership:

- **Leading the Organization:** The ENEC Strategic Leadership Program

- **Leading Your Function:** The ENEC Organizational Leadership Program

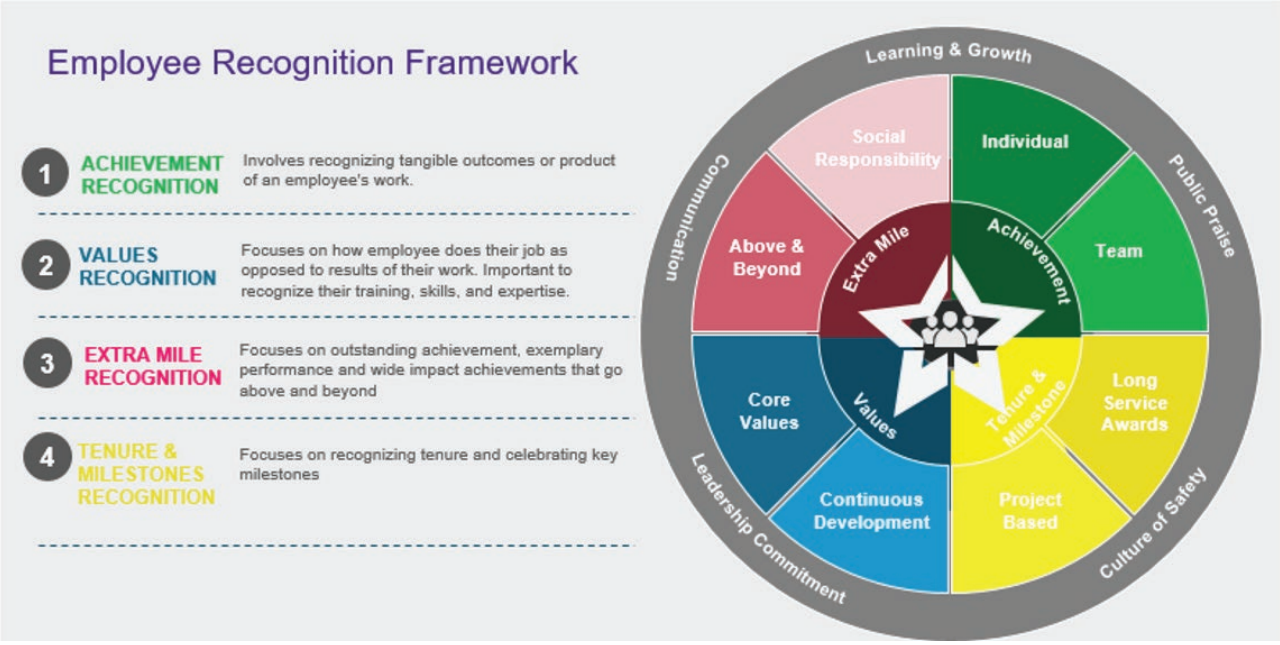
- **Leading Your Team:** The ENEC Team Leadership Program

- **Manager of Others:** The ENEC Management Program

- **Individual Contributor**

Employee Recognition and Awards Framework

ENEC's employee recognition and awards framework has been developed to build a positive recognition work environment. The framework includes four key pillars: achievement recognition, values recognition, extra mile recognition, and tenure and milestones recognition. A total of 109 Spot Awards were provided during 2020.



Anti-discrimination

As per the ENEC Code of General Business Principles and Ethics, and Disciplinary Action Code, employees must make all employment decisions without regard to an individual's race, color, national origin, religion, gender, age, disability, or other characteristics (personal traits). Such employment decisions include selection, hiring, placement, compensation, benefits, transfer, promotion, training, termination, and disciplinary action. Employees are prohibited from undertaking any act of discrimination in the workplace against any other person based on a personal trait. In 2020, there were zero incidents regarding discrimination.

Female Participation

ENEC is deeply committed to promoting female employment and participation in the workforce. To encourage female employees to join and remain in the nuclear sector, we developed an integrated approach to promote the inclusion of women in our workforce by supporting the new generation of women employed in the nuclear industry, developing their skills, and creating an inclusive workplace that supports work-life balance and wellbeing.

In 2020, the workforce was comprised of 511 female employees. Women made up 18% of the total workforce and 10% of senior management. Many of the women at the Barakah NPP are employed in highly technical roles, making it one of the most gender-diverse nuclear energy plants in the world.

Female Participation			
Year	**2018**	**2019**	**2020**
Number of female employees	516	522	511
Female employment rate	18%	17%	18%
Number of females in senior management positions	48	12	10

Scope: ENEC, Nawah and Barakah One Company

Women in Nuclear (WiN)

WiN is a global working group that supports the overall role of women in the nuclear industry, focusing on women working professionally in various fields of nuclear energy. ENEC and Nawah are active members of WiN's UAE chapter, supporting the overall understanding of women's needs within the company and ensuring that we are the number one employer of choice for females. The initiative provides an open communication channel between the working group and external technical and professional organizations, as well as education institutions and community organizations, to ultimately promote careers in engineering and nuclear technologies for females, especially UAE Nationals.

Taking into consideration the UAE's culture and the significant number of women employed at the Barakah NPP, we support female employees who are striving for professional excellence by providing formal and informal mentoring, coaching opportunities, presentations on technical topics and updates, communicating items of interest to working women and providing guidance on continuing educational opportunities.

Women in Nuclear
https://www.nawah.ae/about-nawah/women-in-nuclear-(win)

7.3 National Talent Development

It is vital that UAE Nationals play a central role in the UAE Peaceful Nuclear Energy Program, from construction, through 60 years of operations and maintenance, and the eventual decommissioning of the Barakah NPP. Building a national workforce in a brand-new technical industry is a major undertaking and we have set an ambitious target to achieve 60% Emiratization.

Emiratization

ENEC and its subsidiaries have recently revised the Emiratization policy. In support of the policy, an Emirati Talent Committee, chaired by the Nawah CEO, exists to provide strategic direction and oversight of Emiratization.

A dedicated Emiratization department is responsible for attracting and retaining national talent to reduce reliance on international expertise. In 2020, we employed 1,508 UAE Nationals, a 5% increase compared to 2019. The Emiratization rate was 53% across the workforce in 2020, and 38% among senior management.

This year, among Emirati employees and teams to develop and deliver development programs to bridge those gaps.

Emiratization			
Year	**2018**	**2019**	**2020**
Number of UAE Nationals	1,453	1,496	1,508
Emiratization rate (%) *	50%	48%	53%
Number of UAE Nationals in senior management	126	57	41
Senior management Emiratization rate (%) *	58%	54%*	41%

**Value has been restated*
Scope: ENEC, Nawah and Barakah One Company

7.4 Knowledge Creation

The creation of knowledge and skills, internally and externally, is important to the long-term sustainability of the UAE Peaceful Nuclear Energy Program. We collaborate with a range of academic and governmental institutions to deliver knowledge and skills training for our own employees and the employees of other sector-based companies.

Our ongoing efforts to support the UAE's transition to a knowledge-based economy include knowledge sharing and engaging with local and international stakeholders, thereby driving growth, and setting new standards of excellence. The nuclear energy industry has some of the most stringent quality, technical and risk management standards in the world and we are committed to sharing its experiences in implementing and maintaining these standards with other national stakeholders and entities. Hence, we seek to reach out to our stakeholders to provide formal education and an overview of the program and technology.

GRI 2016: 102-48

> "As a new organization within this global industry, we continuously strive to meet and exceed the highest international standards of safety, security, and efficiency. We are committed to sharing our experience and expertise with our national stakeholders so that they too may benefit from our experience. By sharing what we have learned with other entities, we hope to support the continuous improvement of standards across Abu Dhabi Emirate and the wider UAE."
>
> **H.E. Eng. Mohamed Al Hammadi**, Chief Executive Officer of ENEC

Learning and Development

ENEC is committed to learning and improvement in accordance with the global nuclear energy industry's commitment to continuous learning and development.

To deepen the understanding about ENEC, a foundational training program for all new joiners is conducted. ENEC also provides 35 core competency courses to postulate ample opportunity for the continuous development of the technical and soft skills that are crucial for a successful workplace. All training at ENEC is aligned with the international nuclear industry. Guidance is provided by the World Association of Nuclear Operators (WANO) and complies to requirements of the Federal Authority for Nuclear Regulation (FANR).

In recognition of employee time and resources, we blend traditional instructor-led courses with mobile learning in the form of eLearning, eReads, and workshops, thus providing the freedom to continue personal development at times most suitable to individual schedules. All training records are paperless and digital biometric iForms hold employee training records and attendance history. The system is intended to provide real time, accurate records with automated reminders for expirations and renewals required.

Alongside the established yearly course, in 2020 we have introduced a variety of new external training programs to strengthen strategic goals, especially operation readiness. Most trainings have been conducted virtually with international training vendors due to the pandemic.

Systematic Approach to Training (SAT)

All training programs comply to the Systematic Approach to Training (SAT) in determining the training needs, as required by FANR. The training programs' conduct, compliance, and effectiveness are periodically reviewed and evaluated internally as well as externally, by the WANO and FANR, to achieve continuous improvement. The Nuclear Training function designs, develops, implements, evaluates and oversees training and qualification programs to staff of Barakah NPP. This is conducted primarily through the development and implementation of general employee training programs, Nawah administered initial and continuous training programs for Barakah NPP Operations and Technical staff, and simulator training facilities.

Data Management Training

Based on the Mandate from Abu Dhabi Digital Authority, the ENEC Data Management Program (EDMP) was developed. EDMP aims to transform our processes to a data driven organization, capitalizing on the strategic role of data management and analytics in informing effective leadership decision making. It has been introduced as part of building the capabilities of employees within ENEC on data management. This training is designed to provide a comprehensive understanding of ENEC data management programs components and structure, data governance models and techniques, data quality standards and audits and concepts of quantitative and qualitative data analysis methods to support executive decision-making process. Over 60 employees from different strategic and support functions and the youth category completed the training.

Nuclear Knowledge Management Training

As knowledge management is considered to be a mandatory requirement within the nuclear industry, a virtual group training has been conducted by the Nuclear Management Institute, a leading international institute in nuclear knowledge management. Employees were trained on nuclear knowledge management theories, models, and best practices.

Innovation Champions

The ENEC Facilities Support Services (EFSS) was rebranded in 2019 as teslam. Teslam has continued to provide accommodation, facilities management, transportation, and more. The brand utilizes digital innovation to improve services and ensure productivity, efficiency, sustainability, and user satisfaction.

As part of teslam's digital transformation strategic objective, group training for teslam's team (Facilities Management) was conducted by SAP Winnovate over a four-week period. The training aimed to build an innovation capacity through the empowering of innovation champions with capabilities, techniques, mind-sets, and frameworks.

Electric Power Resource institute (EPRI)

Various employees across our technical teams were provided with a three-week customized training course, covering visual inspections for the detection of imperfections. The training course incorporated the ASME Code requirements that pertain to visual examinations. This year, 42 individuals participated in this course.

A two-day customized intensive technical training for 17 Nawah employees on Life Cycle Management, in collaboration with the EPRI was carried out.

Furthermore, employees also participated in the EPRI Nuclear Utility Procurement Course, which is a three-day course that provides detailed guidance on performing safety classifications, equivalency evaluations, and commercial grade dedication, as well as other issues related to materials management. The comprehensive course uses lectures, examples, exercises, and discussion groups to address key procurement issues faced by the industry.

ENARA Leadership Program

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

Global Sanctions Course

In a world of increasingly complex laws, regulations, and policies, providing our employees with an understanding of global sanctions is key. This year, 38 employees completed a customized group training provided by CCL Academy with the aim to explain what sanctions are, understand various sanctions regimes and understand how to identify red flags and monitor sanctions.

Workplace Investigator Course

ENEC provided employees with a three-day practical training focusing on compliance, employees concern program, cross-culture communication, and employee-relation. The course aimed to enhance employees' knowledge in workplace investigation in line with best practice investigative skills and techniques, training them on how to analyze evidence and write an investigation report.

Innovation Management Certification – Level 1

To maintain an innovation and excellence culture within ENEC and its subsidiaries, 35 employees from the Youth Category completed Innovation Management Certification-Level 1. The certificate is provided by the Global Innovation Management Institute (GIMI), a leader in the field of Innovation. The training is customized to the ENEC Innovation Requirement that aims to build innovation management capabilities at all levels of the organization, provide in-depth understanding on how to define innovation strategy, how to build innovation capacity and how to instill innovation discipline.

Nuclear Energy Training

ENEC collaborates with the IAEA, Khalifa University of Science and Technology (KU), and FANR to offer the UAE-IAEA Nuclear Energy Management School. This school provides participants with a unique international educational experience aimed at preparing future nuclear energy leaders, while encouraging research and discussion on topics relating to the peaceful use of nuclear technology and creating a network of nuclear energy peers around the world. This program is run every two years and the latest session was initiated in early 2019.

ENEC also recently launched the Nuclear Leadership Academy. The strategy and journey adopted for the academy works to match the right learning at the right time for each leader through a series of programs and initiatives that support leadership training and development.

Competency Progression Plan

The Competency Progression Plan was implemented as a formal HR procedure in 2020 for Local Operators, Reactor Operators, and Senior Reactor Operators. Based on the eligibility study for grade promotions, operations employees shared a Competency Progression document with management for endorsement and approval. The same year ENEC developed and designed the Competency Progression Plan for Chemistry, Radiation Protection and Maintenance. These competency-based progression plans are scheduled to be finalized in 2021.

Train for Work

ENEC supports the Train for Work initiative by TAMM, the Human Resources Authority of Abu Dhabi, which enables job seekers who are actively looking for a job to acquire work experience and gain better opportunities to secure a job in the marketplace.

Partnering with Academic Institutions

Nawah works with the government and local universities to ensure that the UAE workforce is qualified for jobs in the nuclear energy sector, including senior technical and management careers. Nawah offers a variety of scholarships and training opportunities to the most talented science students and experienced professionals. There is also an outreach program to schools to encourage students to study science and advise them of career possibilities with Nawah.

Higher Diploma of Nuclear Technology (HDNT) program

ENEC has successfully partnered with numerous schools and universities through the career counsellors to advertise for the HDNT program, as well as creating an application portal that enables us to keep track of the interested and eligible candidates. The above are ideal to use for strategic sourcing, especially during the COVID-19 pandemic where no career fairs, schools and universities career events or roadshows are conducted in the country.

UAE Nationals who want to become a part of the emerging nuclear energy sector can apply for scholarships in the HDNT program at Abu Dhabi Polytechnic, or for a variety of degrees at KU. ENEC provides scholarships to students in both bachelor's and master's degree programs in chemical, nuclear, mechanical, and electrical engineering.

The HDNT program is the long-term manpower program for foundational technical positions within Nawah. The program is a joint initiative between Abu Dhabi Polytechnic and Nawah. During the three-year program, students learn various subjects including Mathematics, Physics, Chemistry, Mechanical Science, Electrical Science, Heat Transfer and Fluid Flow, Nuclear Physics, Plant Systems, Nuclear Safety, Radiation Measurement, Radiation Protection and Nuclear Materials. Courses are taught by Abu Dhabi Polytechnic faculty as well as by our capacity-building nuclear instructors. The program also includes on-the-job training (OJT), a 23-week program designed to expose students to the various disciplines offered and introduce them to the plant and their specialized fields. A total of 214 HDNT student graduated from the program since 2011.

Nuclear Infrastructure Development School

ENEC also partners with KU, FANR, NCEMA, CICPA, ADPoly and the IAEA to launch the UAE Collaborating Centre which helps the UAE and the IAEA. The Centre enables enhanced sharing of the experience of the UAE in building its nuclear power infrastructure development with other embarking IAEA Member States.

This collaboration delivers the Nuclear Infrastructure Development School, which provides participants with a unique international educational experience aimed at preparing future nuclear energy leaders, while encouraging research and discussion on topics relating to the peaceful use of nuclear technology and creating a network of nuclear energy peers around the world. This program is run every two years, with the next one in 2021.

National Qualification Authority (NQA)

Since 2015, ENEC has partnered with the National Qualification Authority (NQA), developing, and achieving the NQA Vocational Education and Training Awards Council (VETAC) endorsement for 368 National Occupational Skill Standards (NOSS), 23 National Awards and eight National Principal Qualifications (Q+NOSS).

Since 2017, Nawah has been a recognized National Registered Training Provider (RTP), authorized to issue nationally endorsed qualifications. These qualifications are obtainable by Nawah employees who can demonstrate competence in line with the national standards. Pending approval from the NQA, once implemented, these nationally endorsed qualifications will be recognized by other UAE institutions for credit transfer and career advancement and will also be internationally recognized.

ENEC Internship and Summer Program

The ENEC internship and summer programs give UAE National students and graduates the opportunity to experience the corporate structure and day to day activities to enhance their learning experiences by involving them in OJT within different departments at HQ and onsite at Barakah. The programs are delivered in cooperation with governmental and private academic institutions.

Student Sponsorships			
Year	**2018**	**2019**	**2020**
Higher Diploma	94	100	63
Bachelor	22	12	31
Master	0	1	1
PhD	2	2	0
Total Number of Students	118	115	95

Scope: ENEC, Nawah and Barakah One Company

Barakah Youth Council (BYC)

The Barakah Youth Council (BYC) inspires, supports, and empowers the future UAE National leaders of the UAE Peaceful Nuclear Energy Industry. The BYC serves as a direct channel of communication between the senior leadership of ENEC, Nawah and Barakah One Company and the young UAE National employees. The council provides these young employees with a voice to champion change and drive continuous improvement while also being involved in the decision-making for the evolution of the UAE Peaceful Nuclear Energy Program.

Energy Pioneer Program

The Energy Pioneers Program was fostered to continue building a pipeline of future nuclear qualified talent. As of year-end, the Talent Pipeline consisted of 579 Energy Pioneers, of which 328 achieved qualifications, and 251 are continuing the Training and Job Qualification program. Despite challenges posed by COVID-19, Local Operators have achieved exemplary progress and succeeded in receiving qualifications.

Qualification	SRO	RO	Local Operator	Chemistry	Radiation Protection	Maintenance	Engineering
Certified	27	6	48	40	21	63	123
Ongoing	25	79	81	7	16	2	41
Total	52	85	129	47	37	65	164

University Students Internship Program

ENEC runs an internship program for UAE and Korean students in undergraduate engineering programs. We launched this program in collaboration with KEPCO and the Korea Nuclear Association (KNA). The program is designed to involve the students in activities such as plant design, plant construction, commissioning, operation, maintenance, and decommissioning.

In 2020, 19 Korean students joined the internship program learning from over 30 UAE National engineers and subject matter experts.

Outreach Programs

ENEC launched an Outreach Program to introduce and raise awareness about the UAE Peaceful Nuclear Energy Program and its benefits. The program targets citizens and residents across various age groups in the UAE, and is customized based on the following target groups:

1. Schools
2. Universities
3. Majalis (Arabic term for gatherings of common interest groups in the community)
4. UAE and International Stakeholders

The program's objectives include:

- Building and developing opportunities for UAE citizens to engage with the program.
- Expanding the program to other Emirates.
- Raising awareness about the UAE Peaceful Nuclear Energy Program to different levels of society.
- Ensuring stakeholders understand the benefits of nuclear energy and its impact on tackling climate change.

In 2020, due to the COVID-19 circumstances and restrictions, the Outreach Program was held virtually using digital platforms. Overall, 51 sessions were held, with over 7,600 participants, which ranged from government entities, universities, schools, and the general public.

Technical Working Group

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

Training and Development			
Year	**2018**	**2019***	**2020**
Total number of internal and external training hours delivered	444,034*	625,402	341,163
Average hours of internal and external training per employee	152*	201	120
Internal training hours delivered	402,490	567,394	328,715
UAE National employees	140,848	212,896	101,278
International employees	261,642	354,498	227,437
External training hours delivered	24,280	58,008	12,448
UAE National employees	22,256	50,096	6,672
International employees	2,024	7,912	5,776
Number of eLearning and eReads available	774	965	1,169
Number of eLearning and eReads completed	58,638	68,638	58,216

Scope: ENEC, Nawah and Barakah One Company
**Values have been restated*
Training hours delivered does not include initial operations and technical training program that qualify operators, maintenance, engineering, radiation protection and chemistry plant personnel, or time spent on eReads and eLearning since these are untimed and completed at an employee's own pace

GRI 2016: 102-48

APPENDICES

APPENDIX A - Report Scope and Boundaries

The scope and boundaries of this report includes operations and activities that fall under ENEC and subsidiaries, Nawah and Barakah One Company, including KEPCO. The scope covers ENEC HQ and activities at leased buildings in Abu Dhabi, and construction-related activities carried out by KEPCO at the Barakah NPP.

This report was prepared using data and information collected in cooperation with all ENEC, BOC and Nawah divisions. In addition, Health, Safety and Environmental data submitted monthly by KEPCO, ENEC's Prime Contractor on the Barakah site project has been used in combination with ENEC HQ data to produce this report.

Section of the report	Boundaries of performance reporting
Our Economic Footprint	
Financial Responsibility	ENEC, Nawah and Barakah One Company
Supply Chain Management	ENEC, Nawah and Barakah One Company
Economic Development	ENEC, Nawah and Barakah One Company
Safe, Clean, Efficient and Reliable Energy	
HSES Management System (MS)	ENEC, Nawah, Barakah One Company, KEPCO and subsidiaries
Health, Safety and Security	ENEC, Nawah, Barakah One Company, KEPCO and subsidiaries
Quality, Efficiency and Reliability	ENEC, Nawah and Barakah One Company
Environmental Management	ENEC, Nawah, Barakah One Company, KEPCO and subsidiaries
Empowering our People	
Our Workforce	ENEC, Nawah and Barakah One Company
National Talent Development	ENEC, Nawah and Barakah One Company
Knowledge Creation	ENEC, Nawah and Barakah One Company

The information discussed in this report is based on performance and ENEC status as of December 31, 2020. The reporting period is 1 January 2020 to 31 December 2020. Compiling this report has helped the ENEC and its subsidiaries to better understand the impact of its operations and highlights data streams that the ENEC and its subsidiaries will continue to monitor for future reporting. No limitations for reporting on scope or boundary were identified during the preparation of this report.

GRI 2016: 102-46

Appendix B – Stakeholder Mapping

ENEC Stakeholder Groups			
Stakeholder	**Description**	**Interest/Role/Expectations**	**Channels of Engagement**
Government Entities	Federal, regional, and local government ministries and authorities.	Safety, security, environment, emergency preparedness, shared infrastructure, and other resources.	• Site delegations, facility tours and inspections • Regular meetings and written correspondence • Program Executive Update • 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, technology, etc.	• Regular meetings and workshops • Regular reports and program updates • Delegations to site • Shared initiatives • Knowledge-sharing workshops • Interactive dialogue • Reporting • International Advisory Board • Associated events, seminars, conferences and regional events
Media	Local, regional, and international media.	On-going access to timely, comprehensive information about the project.	•Arranging interviews •Site visits •Media training
International Organizations, Government and Financial Institutions	Multilateral organizations, governments of GCC Nations, governments of civilian nuclear energy programs.	On-going access to timely, comprehensive information about the project.	•Delegations and events •Responding to on-going requests for information
Academic Bodies	Federal, regional, and international academic institutions.	Involvement in human capacity development, vocational and technical training, bachelors, and master's programs.	•Energy Pioneers Programs •Regular events and career fairs at schools and universities

GRI 2016: 102-40, 102-42, 102-43, 102-44

ENEC Stakeholder Groups			
Stakeholder	**Description**	**Interest/Role/Expectations**	**Channels of Engagement**
Non-Government Organizations (NGOs)	Environmental and social interest groups.	Potential environmental and social impacts/issues during all phases of the project.	
Prime Contractor Program Related Companies	KEPCO or its subsidiaries	Initiating and developing all construction and operation works, knowledge transfer, industry best practices, safety and security, technology.	• Regular meetings and workshops • Regular reports and program updates • Knowledge-sharing • Interactive dialogue • Reporting • Associated events, seminars, conferences and events
Social Actors	Including but not limited to: Al Dhafra Region residents ENEC, Nawah and Barakah One staff, Senior Reactor Operators, Abu Dhabi residents	Increase awareness and knowledge, safety, security, environment, emergency preparedness, shared infrastructure and other resources.	• Awareness sessions • Internal engagement programs • CSRs
Administration, Infrastructure and Utility Organizations	Energy, electricity and transmission companies	Obtaining Non-Objection Certificate Infrastructure works, essential urban planning activities, power supply	• Meetings • Benchmarking • Non-Objection Certificate • Regular meetings and workshops • Regular reports and program updates

GRI 2016: 102-40, 102-42, 102-43, 102-44

Appendix C – GRI Content Index

This report has been prepared in accordance with the GRI Standards: Core option. As signified by the icon above, the report has successfully completed a Materiality Disclosure Service provided by the GRI. The table below is an index of the GRI disclosures included in this report as per the GRI Standards. For the Materiality Disclosures Service, GRI Services reviewed that the GRI content index is clearly presented and the references for Disclosures 102-40 to 102-49 align with appropriate sections in the body of the report.

GRI Standard	Disclosure	Page number(s) and/or direct answers
GRI 101: Foundation 2016		
GRI 102: General Disclosures 2016	Organizational Profile	
	102-1 Name of the organization	Emirates Nuclear Energy Corporation (ENEC)
	102-2 Activities, brands, products, and services	7-9
	102-3 Location of headquarters	Abu Dhabi
	102-4 Location of operations	UAE
	102-5 Ownership and legal form	9-10
	102-6 Markets served	UAE
	102-7 Scale of the organization	9-10
	102-8 Information on employees and other workers	68-69
	102-9 Supply chain	35-38
	102-10 Significant changes to the organization and its supply chain	35-38
	102-11 Precautionary Principle or approach	13-19, 44-55
	102-12 External initiatives	4, 28-29, 63-64
	102-13 Membership of associations	20
	Strategy	
	102-14 Statement from senior decision-maker	6
	102-15 Key impacts, risks, and opportunities	11-12,17,19

GRI 102: General Disclosures 2016	Ethics and Integrity	
	102-16 Values, principles, standards, and norms of behavior	7-8, 17-18
	Governance	
	102-18 Governance structure	14-16
	Stakeholder engagement	
	102-40 List of stakeholder groups	85-86
	102-41 Collective bargaining agreements	Collective bargaining is not permitted within the UAE
	102-42 Identifying and selecting stakeholders	27-29, 85-86
	102-43 Approach to stakeholder engagement	27-29, 85-86
	102-44 Key topics and concerns raised	85-86
	Reporting practice	
	102-45 Entities included in the consolidated financial statements	Financial statements include the activities of ENEC. No other entity is included
	102-46 Defining report content and topic Boundaries	84
	102-47 List of material topics	24
	102-48 Restatements of information	36-38, 49, 61-62, 76, 82
	102-49 Changes in reporting	No significant changes.
	102-50 Reporting period	1 January 2020 – 31 December 2020
	102-51 Date of most recent report	2019
	102-52 Reporting cycle	Annual
	102-53 Contact point for questions regarding the report	4
	102-54 Claims of reporting in accordance with the GRI Standards	4, 87
	102-55 GRI content index	87-95
	102-56 External assurance	Not assured
Material Topics		
GRI 200: Economic		
Economic Performance		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	32-34
	103-2 The management approach and its components	32-34
	103-3 Evaluation of the management approach	32-34

GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	34
	201-4 Financial assistance received from government	34
Market Presence		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	32-33, 66-67
	103-2 The management approach and its components	32-33, 66-67
	103-3 Evaluation of the management approach	32-33, 66-67
GRI 202: Market Presence 2016	202-2 Proportion of senior management hired from the local community	75
Indirect Economic Impacts		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	32-34, 39
	103-2 The management approach and its components	32-34, 39
	103-3 Evaluation of the management approach	32-34, 39
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	34, 39
	203-2 Significant indirect economic impacts	34
Procurement Practices		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	37-39
	103-2 The management approach and its components	37-39
	103-3 Evaluation of the management approach	37-39
GRI 204: Procurement Practices 2016	204-1 Proportion of spending on local suppliers	38
Anti-corruption		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	17-18
	103-2 The management approach and its components	17-18
	103-3 Evaluation of the management approach	17-18

GRI 205: Anti-corruption 2016	205-1 Operations assessed for risks related to corruption	17
	205-2 Communication and training about anti-corruption policies and procedures	17
	205-3 Confirmed incidents of corruption and actions taken	17
GRI 300: Environmental		
Materials		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	59
	103-2 The management approach and its components	59
	103-3 Evaluation of the management approach	59
GRI 301: Materials 2016	301-1 Materials used by weight or volume	59
Energy		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	61
	103-2 The management approach and its components	61
	103-3 Evaluation of the management approach	61
GRI 302: Energy 2016	302-1 Energy consumption within the organization	61
	302-2 Energy consumption outside of the organization	61
	302-3 Energy intensity	61
	302-4 Reduction of energy consumption	61
Water and Effluents		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	61-62
	103-2 The management approach and its components	61-62
	103-3 Evaluation of the management approach	61-62
GRI 303: Water and Effluents 2018	303-2 Management of water discharge-related impacts	62
	303-5 Water consumption	61

Biodiversity		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	63-64
	103-2 The management approach and its components	63-64
	103-3 Evaluation of the management approach	63-64
	304-2 Significant impacts of activities, products, and services on biodiversity	63
GRI 304: Biodiversity 2016	304-2 Significant impacts of activities, products, and services on biodiversity	63
Emissions		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	59-60
	103-2 The management approach and its components	59-60
	103-3 Evaluation of the management approach	59-60
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	60
	305-2 Energy indirect (Scope 2) GHG emissions	60
	305-3 Other indirect (Scope 3) GHG emissions	60
	305-4 GHG emissions intensity	60
	305-5 Reduction of GHG emissions	60
Waste 2020		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	62-63
	103-2 The management approach and its components	62-63
	103-3 Evaluation of the management approach	62-63

GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	62-63
	306-2 Management of significant waste-related impacts	62-63
	306-3 Waste generated	63
	306-4 Waste diverted from disposal	63
	306-5 Waste directed to disposal	63
Environmental Compliance		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	57
	103-2 The management approach and its components	57
	103-3 Evaluation of the management approach	57
GRI 307: Environmental Compliance 2016	307-1 Non-compliance with environmental laws and regulations	57
Supplier Environmental Assessment		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	37-38
	103-2 The management approach and its components	37-38
	103-3 Evaluation of the management approach	37-38
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	37-38
	308-2 Negative environmental impacts in the supply chain and actions taken	37
GRI 400: Social		
Employment 2016		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	69-70
	103-2 The management approach and its components	69-70
	103-3 Evaluation of the management approach	69-70
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	70
Occupational Health and Safety 2018		

GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	44-55
	103-2 The management approach and its components	44-55
	103-3 Evaluation of the management approach	44-55
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	44
	403-2 Hazard identification, risk assessment, and incident investigation	44-55
	403-3 Occupational health services	44-55
	403-4 Worker participation, consultation, and communication on occupational health and safety	44-55
	403-5 Worker training on occupational health and safety	44-55
	403-6 Promotion of worker health	49-50
	403-8 Workers covered by an occupational health and safety management system	47-48
	403-9 Work-related injuries	48
	403-10 Work-related ill health	48
Training and Education 2016		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	71-73, 77-79
	103-2 The management approach and its components	71-73, 77-79
	103-3 Evaluation of the management approach	71-73, 77-79
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	82
	404-2 Programs for upgrading employee skills and transition assistance programs	71-73
	404-3 Percentage of employees receiving regular performance and career development reviews	71
Diversity and Equal Opportunity 2016		

GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	66-68, 73-74
	103-2 The management approach and its components	66-68, 73-74
	103-3 Evaluation of the management approach	66-68, 73-74
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	15, 68
Non-discrimination 2016		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	73
	103-2 The management approach and its components	73
	103-3 Evaluation of the management approach	73
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	No incidents recorded
Forced or Compulsory Labor 2016		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	37-38
	103-2 The management approach and its components	37-38
	103-3 Evaluation of the management approach	37-38
GRI 409: Forced or Compulsory Labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	38
Security Practices 2016		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	9, 42, 45, 50-51
	103-2 The management approach and its components	42, 45, 50-51
	103-3 Evaluation of the management approach	42, 45, 50-51
GRI 410: Security Practices 2016	410-1 Security personnel trained in human rights policies or procedures	50-51
Local Communities 2016		

GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	23, 28-29
	103-2 The management approach and its components	23, 28-29
	103-3 Evaluation of the management approach	23, 28-29
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	34, 64, 75, 79-81
	413-2 Operations with significant actual and potential negative impacts on local communities	34, 64
Supplier Social Assessment		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	37-39
	103-2 The management approach and its components	37-39
	103-3 Evaluation of the management approach	37-39
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	37
	414-2 Negative social impacts in the supply chain and actions taken	37-39
Socioeconomic Compliance		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	17-18
	103-2 The management approach and its components	17-18
	103-3 Evaluation of the management approach	17-18
GRI 419: Socioeconomic Compliance 2016	419-1 Non-compliance with laws and regulations in the social and economic area	17-18

Appendix D – Acronyms and Synonyms

Acronyms			
ADAA	Abu Dhabi Accountability Authority	**EDMP**	Enterprise Data Management Program
ACTVET	Abu Dhabi Centre for Technical and Vocational Education and Training	**EFSS**	Enterprise Facilities Support Services
ADNOC	Abu Dhabi National Oil Company	**EMEG**	Emirates Marine Environmental Group
ADPoly	Abu Dhabi PolyTechnic	**EMS**	Environmental Management System
ADQ	Abu Dhabi Development Holding Company	**ENEC**	Emirates Nuclear Energy Corporation
ADSG	Abu Dhabi Sustainability Group	**EOF**	Emergency Operations Facility
AFMP	Anti-Fraud and Misconduct Program	**EOW**	Essential On-site Workers
ALARP	As low as reasonably practicable	**EPRI**	Electric Power Resource Institute
APR	Advanced Power Reactor	**ERM**	Enterprise Risk Management
ARCC	Audit, Risk and Compliance Committee	**ERO**	Emergency Response Organization
ASME	American Society of Mechanical Engineers	**ESWG**	External Stakeholders Working Group
AT SITE	Accountability, Teamwork, Safety, Integrity, Trust and Excellence	**EWEC**	Emirates Water and Electricity Company
BCI	Business Continuity institute	**FANR**	Federal Authority for Nuclear Regulation
BCM	Business Continuity Management	**GCC**	Gulf Cooperation Council
BCR	Business Continuity and Resilience	**GDP**	Gross Domestic Product
Barakah NPP	Barakah Nuclear Power Plant	**GHG**	Greenhouse Gas
BYC	Barakah Youth Council	**GIMI**	Global Innovation Management Institute
CAF	Combined Assurance Framework	**GJ**	Gigajoules
CAPEX	Capital Expenditure	**GOSP**	Governance, Oversight, Support and Perform
CEMP	Construction Environmental Management Plan	**GSEC**	General Secretariat of the Executive Council
CEO	Chief Executive Officer	**HCC**	Human Capital Committee
CICPA	Critical Infrastructure and Coastal Protection Authority	**HDNT**	Higher Diploma of Nuclear Technology
CNP	Committee on Nuclear Power	**HIRD**	harassment, intimidation, retaliation, or discrimination
CO2	Carbon Dioxide	**HQ**	Headquarters
COIT	Certified Operator Initial Training	**HSE**	Health, Safety and Environment
ConvEx-3	IAEA International Emergency Response Exercise	**HSEMS**	Health, Safety, Environment Management System
COSO	Committee of Sponsoring Organizations	**HSES**	Health, Safety, Environment and Sustainability
CPO	Chief Program Office	**HSJV**	Hyundai-Samsung Joint Venture
DOA	Delegation of Authority	**IAEA**	International Atomic Energy Agency
DoE	Department of Energy	**ICT**	Information and Communications Technology
DoF	Department of Finance	**ICV**	In-Country Value
DoH	Department of Health	**IDPs**	Individual Development Plans
DTRP	Dubai Turtle Rehabilitation Project	**IIA**	Institute of Internal Auditors
EAD	Environment Agency – Abu Dhabi	**IIER**	Integrated Incident and Emergency Response
ECP	Employee Concerns Program	**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
KU	Khalifa University of Science and Technology
kWh	kilowatt hour
LTIFR	Lost Time Injury Frequency Rate
MNCs	Multinational Companies
MS	Management Systems
MSA	Maintenance Service Agreement
MTCO2	kilowatt hour
Eq	metric tons Carbon Dioxide equivalent
NCEMA	National Emergency Crisis and Disasters Management Authority
NOSS	National Occupational Skill Standards
NQA	National Qualification Authority
NSRB	Nuclear Safety Review Board
OEMP	Operational Environmental Management Plan
OSC	Operations Support Center
OSH	Occupational Safety and Health
OSHAD	Abu Dhabi Occupational Safety and Health
OSHAD-SF	Abu Dhabi Occupational Safety and Health System Framework
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
REMP	Radiological Environmental Monitoring Program
RTP	Registered Training Provider
SASB	Sustainability Accounting Standards Board
SCBA	Self-Contained Breathing Apparatus
PPP	Physical Protection Plan
SCWE	Safety Conscious Work Environment
SIs	Strategic Indicators
SMAT	Sustainability Maturity Assessment Tool
SMEs	Small and Medium-sized Enterprises
Tadweer	Abu Dhabi Centre for Waste Management
The Code	ENEC Code of General Business Principles and Ethics
TRCFR	Total Recordable Case Frequency Rate
TSC	Technical Support Center
TWL	Thermal Work Limit
UAE	United Arab Emirates
UN	ENEC Code of General Business Principles and Ethics
SDGs	United Nations Sustainable Development Goals
US	United States
USD	United States Dollar
VETAC	Vocational Education and Training Awards Council
WANO	Word Association of Nuclear Operations

Glossary	
Climate Change	Describes changes in the variability or average stage of the atmosphere over time scales ranging from decades to millions of years.
Emiratization	A national program initiated by the government of the United Arab Emirates to proactively increase the number of UAE Nationals in the public and private sectors, to empower UAE Nationals and reduce dependency on foreign workers.
Environmental Management System	The management of environmental programs in a comprehensive, systematic, planned, and documented manner. It includes the organizational structure, planning, and resources for developing, implementing, and maintaining policy for environmental protection.
GRI Reporting Standards	A framework for reporting on an organization's economic, environmental, and social performance, managed by the GRI.
GRI	The GRI (Global Reporting Initiative) 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	Gas emissions, which contribute to the trapping of heat inside the atmosphere (resulting in the Global Warming phenomenon). These gases include carbon dioxide, methane, or hydrofluorocarbon emissions.
Gulf Cooperation Council	A political and economic union involving the six Arab states of the Arabian Gulf with many economic and social objectives.
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 plant use steam, turbines, and generators to turn the heat released by fission into electricity.
Nuclear Fuel Cycle	The series of industrial processes, which involve the production of electricity from uranium in nuclear energy reactors. This can include uranium discovery, conversion, enrichment, de-conversion, and fuel fabrication, use of fuel in reactors, storage, reprocessing, and disposal.
Occupational Health and Safety	A cross-disciplinary area concerned with protecting the safety, health and welfare of people engaged in work or employment.
Radioactive	Emitting or relating to the emission of ionizing radiation or particles.
Renewable Energy	Energy from a source that is not depleted when used.
Stakeholder Engagement	The process by which a firm's stakeholders engage in dialogue to improve a firm's decision-making and accountability toward sustainable development.
Stakeholders	A party that affects or can be affected by the actions of a business.
Sustainability	Sustainable development has been commonly defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." Brunt land 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 timeframe, 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.

مؤسسة الإمارات للطاقة النووية
Emirates Nuclear Energy Corporation

شركة براكة الأولى ش.م.خ
Barakah One Company PJSC

شركة نواة للطاقة
Nawah Energy Company