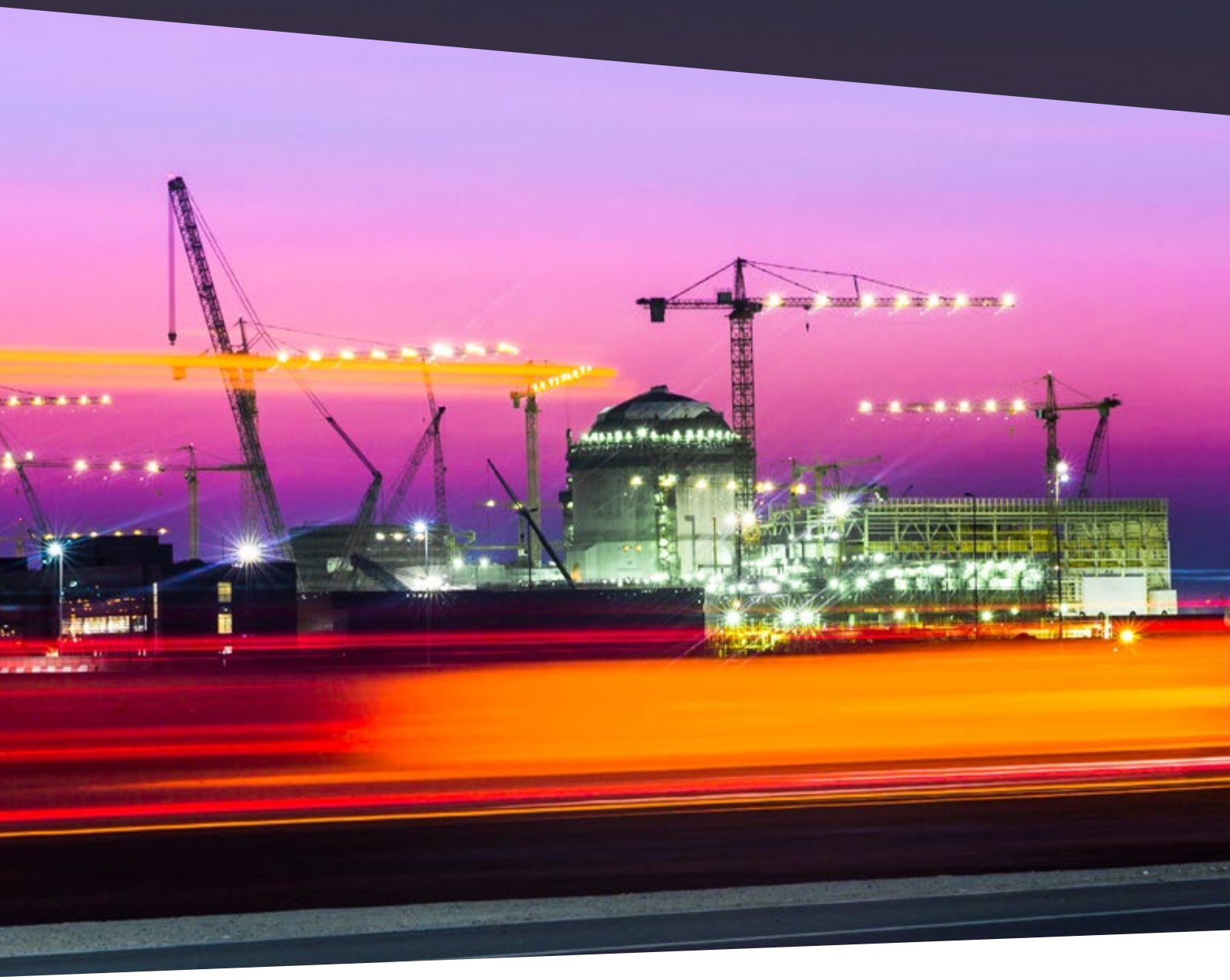
Powering a Sustainable Future

2014 Sustainability Report



مؤسسة الإمارات للطاقة النووية
Emirates Nuclear Energy Corporation

About This Report

Welcome to the Emirates Nuclear Energy Corporation's (ENEC) 2014 Sustainability Report.

This report has been prepared as part of the organization's overarching commitment to stakeholder engagement, open communication and transparency. It provides insight into ENEC's approach to sustainability management and an update on the organization's progress towards sustainable growth and development in 2014. The report covers key economic, environmental, social, and organizational performance data from 2014 and previous years where applicable.

To develop this report, ENEC has used the Global Reporting Initiative (GRI) G4 guidelines 'in accordance' with the core option reporting requirements. The report has successfully completed the GRI's Materiality Disclosure Service, a full GRI G4 Content Index and the Materiality Disclosure Service organisational mark can be found in Appendix C. Details of the report scope and boundaries, as well as information on how the report was prepared using the GRI G4 guidelines can be found in Appendix A.

For the purposes of this report, it is important to note that ENEC does not currently offer any product or service, and is not expected to do so until 2017, when the organization's first nuclear energy generating unit is scheduled to become operational. ENEC is also currently in the construction phase of its program, with 2014 marking a year of increased momentum for the project. This may result in significant variations in reporting figures between 2013 and 2014.

This document has not been subject to review by a third party assurance provider. As ENEC's sustainability reporting process matures, the organization will strive to achieve this for future reports.

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

Message From The CEO

Mohamed Al Hammadi
Chief Executive Officer

The United Arab Emirates (UAE) has a legacy of sustainability, pioneered by our nation's founding President, 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.

The Abu Dhabi Economic Vision 2030 builds on this legacy, providing a sustainable growth strategy that focuses on development across five priority areas including our economy, social and human resources, infrastructure and the environment; while optimizing government operations to deliver a thriving, diversified and dynamic economy and community.

Nuclear energy will be a critical driver of this sustainable growth. Through the development of a peaceful nuclear energy program, our nation stands to gain from the considerable benefits this new energy source will bring: clean and abundant electricity to power new industries and provide energy security; direct economic growth from a new, high-technology industry; and the development of our best and brightest Emirati talent to ensure a highly skilled and indigenous workforce who will lead this industry for decades to come.

These three focus areas form the foundation of ENEC's sustainability program – clean energy provision, economic growth and capacity building. These pillars of sustainability are at the heart of our daily operations at ENEC, and span the highest level of our business planning to individual KPIs. Underpinning this program are our corporate values – safety, integrity, transparency and efficiency – which guide our work each and every day.

As CEO of ENEC, I am proud of the work we have achieved against these targets. In five years we have developed a team of more than 1,300 employees, who dedicate themselves to bringing safe, clean, reliable and efficient electricity to the UAE by 2017. With safety at the very core of our program, we have managed to improve our performance in this area achieving a reduced rate of recordable safety cases among employees and contractors between 2013 and 2014. We have made great strides in supporting UAE companies to become part of the nuclear energy industry, with almost 1,500 local suppliers to date receiving 87% of our procurement spending.

We are continuing to recruit and nurture new talent providing world-class training and development opportunities throughout their careers, celebrating the graduation of our first Energy Pioneers in 2014, from among 342 students sponsored through the program this year. We have placed a special emphasis on ensuring ENEC engages and empowers our brightest young women to serve in our workforce, with the launch of our Women in Nuclear program. These are only a few of our many achievements against our goals, detailed in this report.

Since ENEC's establishment, the organization has been on a sustainability journey. Joining the Abu Dhabi Sustainability Group (ADSG) in 2012 has further demonstrated our commitment to the growth and development of our sustainability program, and to transparently report on our sustainability performance. Specific commitments to further embed sustainability in our organization in 2015 are included in this report, and we will endeavor to learn and to enhance our program to ensure the best possible outcome for our people, our community, and our nation.

Contents

2014 Sustainability Highlights

Delivering Safe, Clean, Reliable and Efficient Energy

Barakah Unit 1
68%
complete as of December 2014

0
fatalities among employees, contractors and subcontractors at site

16
emergency response drills conducted, ensuring the organization is well prepared ahead of operations

Barakah Unit 2
38%
complete as of December 2014

0
lost time injuries recorded among ENEC employees for 2014

Water reduction initiatives at Barakah save more than
370,000
liters a day, enough to fill
55
Olympic sized swimming pools in a year

Pouring of
first
safety concrete for Barakah Unit 3 commenced in September 2014

19%
reduction in total recordable injury frequency rate for contractors and subcontractors

38,489
metric tons of steel used in 2014, enough to build one Burj Khalifa

614,935m³
of concrete used in construction in 2014 alone

From the start of the program more than
31,000
man-hours dedicated to quality audits

Industrial and Economic Development

470
new jobs created directly within ENEC

87%
of ENEC procurement (US $232 million) spent on locally based suppliers

US$ 2.16
billion of contracts from KEPCO have been awarded to locally based suppliers to date

Knowledge and Employment

More than
1,300
ENEC employees

More than
16,900
contractors and subcontractor employees working at site to safely deliver the Barakah plant to the highest international standards

62%
Emiratization

4%
reduction in staff turnover

46
ENEC Energy Pioneers celebrate graduation

Hosted the latest events in ENEC's series of public forums, welcoming more than
500
people to learn about our program

Launch of the Middle East's
first
Women in Nuclear (WiN) chapter at ENEC

40
of the UAE's first Emirati Nuclear Energy Maintenance Engineers graduate

342
students currently sponsored by ENEC in its Energy Pioneers Scholarships Program

Inauguration of ENEC's
7,000m²
Simulator Training Center at Barakah, housing two state of the art training simulators

21%
female employment rate, higher than the nuclear industry world average

1

The Emirates Nuclear Energy Corporation

1.1 About ENEC

The Emirates Nuclear Energy Corporation (ENEC) is responsible for the development, construction and future operation of the UAE's first nuclear energy plants. Nuclear energy has an important role to play in the country's future energy mix, and in 2017, ENEC will begin delivering this vital new source of safe, clean and abundant electricity to the nation.

By 2020, ENEC's team will be responsible for the safe operation of four nuclear energy units; providing up to a quarter of the UAE's electricity needs and saving an estimated 12 million tons of carbon emissions every year. The organization's first unit is scheduled to become fully operational in 2017, with construction now well underway in Barakah, in the Western Region of Abu Dhabi.

Since its establishment in 2009, ENEC has continued to grow and develop from a small energy start-up into to a world-class nuclear energy operating company with a team of more than 1,300 people. This large and growing team shares one clear focus: to safely provide sustainable nuclear energy to power the growth of the United Arab Emirates.

Mission

To deliver safe, clean, efficient and reliable nuclear energy to the UAE grid in 2017 while developing our people and building sustainable nuclear operational capacity.

Vision

Powering the future growth and prosperity of the UAE through a safe and sustainable peaceful nuclear energy program.

Values

Safety

Safety is the overriding priority of ENEC. We design and execute world-class safety and security processes and systems ensuring 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.

Transparency

We are open, transparent, factual and accurate in our communications.

Efficiency

We work in an efficient and effective manner and continuously strive to improve our capabilities, processes and cost effectiveness. We responsibly manage our funds and rigorously manage our work to ensure we meet our commitment to deliver safe, clean, reliable and efficient electricity to the UAE.

1.1.1 Culture of Safety

At ENEC, developing a robust safety culture is the overriding priority. The organization is committed to ensuring the safety of its employees, community, and the environment: it is the overriding priority at all times and safety is engrained throughout every stage of the UAE peaceful nuclear energy program.

Every individual within ENEC is responsible for championing safety within the organization. All employees are encouraged to raise safety concerns and are empowered to act accordingly should they identify any conditions adverse to safety. The organization maintains a comprehensive set of safety policies and procedures which outline its commitment to, and implementation of, safety principles and practices in line with contractors, regulators and the international nuclear community.

The complex and extensive construction program underway at Barakah is a major focus of ENEC's Culture of Safety program's efforts. All activities are performed with culture of safety program in mind at all times to ensure the Barakah site remains a safe workplace for thousands of employees every day.

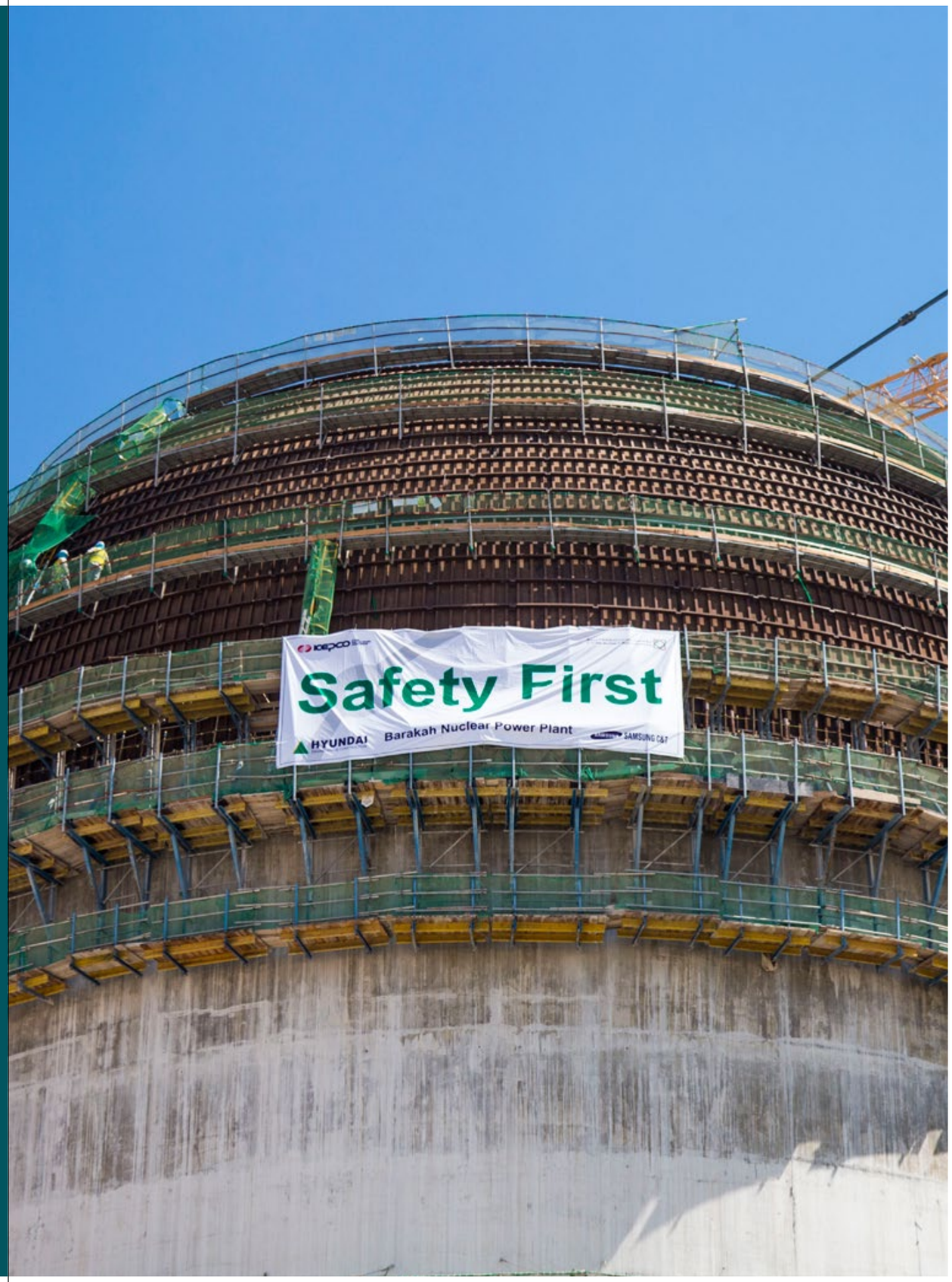
To provide an independent review of the safety and effectiveness of our operations, ENEC established the Nuclear Safety Review Board (NSRB). This Board is composed of international experts and reports directly to the Chief Executive Officer.

The NSRB provides high-level oversight on critical matters including safety, security, and risk management, and helps to identify any gaps to excellence, with the core focus area being nuclear safety. The NSRB also provides oversight in respect to issues of quality, regulation, operations, engineering, construction and project schedule, international treaties, laws, and training and education.

1.1.2 Strategic Goals

Since its establishment, ENEC has confirmed its commitment and capability to meet the ambitious milestones set by the UAE's peaceful nuclear energy policy. Throughout its evolution, the organization follows its Strategic Roadmap to deliver the different phases of the program. In its current phase, ENEC is focused on delivering three strategic goals:

- **Guarantee Project Delivery** - Delivering the UAE's first nuclear energy plants safely, on time and to budget, while meeting the expectations of our regulators and maintaining the highest standards of quality and safety.
- **Ensure Operational Readiness** - Ensuring ENEC has the world-class processes, systems and trained personnel in place to operate our four plants with safety as the top priority; connecting safe, reliable and cost-effective power to our nation's grid.
- **Support and Develop Capability** - Aligning the organization to ensure the delivery of the program in a safe and efficient manner, as well as developing the skilled local nuclear energy workforce required to power the UAE's peaceful nuclear energy program; and enabling business opportunities for UAE companies by supporting the growth of a nuclear energy industry supply chain in the UAE.



1.2 ENEC's Context

In 2007, the UAE Government conducted an extensive study to forecast the nation's long-term electricity requirements and generation capacity. This study found that existing and planned electricity supply would not meet future demand, therefore the UAE was faced with a pressing need to develop additional energy sources to help power its continued growth.

The UAE Government reviewed all commercially feasible energy options to meet this demand, including oil, gas, coal, renewables, and nuclear. These sources were assessed in terms of relative costs, environmental impact, security of supply, and the potential for long-term economic development.

Nuclear energy emerged as the right choice for the UAE because it is a safe, clean source of electricity that utilizes proven technology. The study also concluded that nuclear energy would provide a commercially and environmentally sustainable electricity source, delivering significant volumes of baseload electricity with almost zero emissions during operations. An investment in nuclear energy would diversify the nation's energy supply, support energy security and drive the growth of a major, high-tech industry in the UAE while providing thousands of high-value jobs for decades to come.

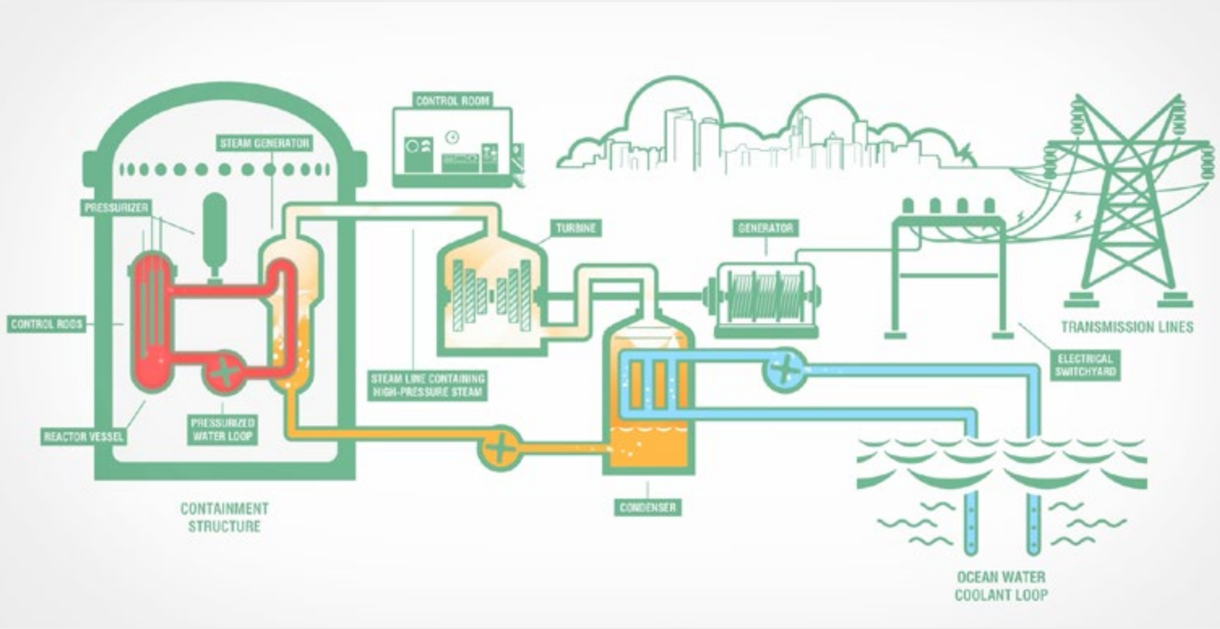
1.2.1 How does Nuclear Energy Work?

A nuclear reactor produces electricity in much the same way other power plants do. Fuel is used to create heat, which is used to turn water into steam. The pressure of the steam turns a generator, which produces electricity.

The key difference is in how the heat is created: power plants that run on fossil fuels burn coal, oil or natural gas to generate heat. In a nuclear energy facility, heat is produced from splitting the nuclei of atoms – a process called nuclear fission. Enriched uranium is the fuel for nuclear reactors. Uranium is an abundant, naturally occurring element found in the Earth's crust.

More information on nuclear energy is available on the ENEC website.
www.enec.gov.ae/learn-about-nuclear-energy/

Figure 1 – How Nuclear Energy Works



http://www.enec.gov.ae/learn-about-nuclear-energy/how-does-nuclear-energy-work/

1.2.2 UAE Policy on Peaceful Nuclear Energy

The UAE's Policy on the Evaluation and Potential Development of Peaceful Nuclear Energy was published in 2008 as a major step toward establishing a peaceful nuclear energy program in the country. The policy emphasizes six principles that govern the exploration of a nuclear energy program in the UAE:

1. Complete operational transparency
2. The highest standards of non-proliferation
3. The highest standards of safety and security
4. Working directly with the International Atomic Energy Agency (IAEA) and conforming to its safety standards
5. Partnerships with responsible nations and appropriate experts
6. Long-term sustainability

These principles highlight the UAE's commitment to the development of a nuclear energy sector with safety and non-proliferation as its foundation. The program will forgo domestic enrichment and reprocessing of nuclear fuel, the two parts of the nuclear fuel cycle that could most readily be used for non-peaceful purposes.

This policy establishes a model through which non-nuclear states may explore and potentially develop a peaceful civil nuclear energy program with the full support and confidence of the international community.

1.2.3 Federal Law and Regulation

ENEC operates under the UAE Federal Law No. 6 of 2009 Regarding the Peaceful Uses of Nuclear Energy. Signed into effect in October 2009, this law enabled the development of a system for licensing and control of nuclear material in the UAE, and established the country's nuclear energy industry regulator—the Federal Authority for Nuclear Regulation (FANR).

FANR is an independent federal agency responsible for the regulation and licensing of all nuclear energy activities in the UAE, including all of ENEC's operations. With public safety as its primary objective, FANR's role is to enforce high standards and encourage self-correction and best practices across the UAE.

ENEC also operates under the regulations of the Environment Agency - Abu Dhabi (EAD), to ensure the long-term sustainability of Abu Dhabi's local and marine environment throughout all phases of the program. The Abu Dhabi Occupational Safety and Health Center (OSHAD) is responsible for overseeing all occupational safety and health issues at an Emirate level, including ENEC's activities.

1.2.4 International Involvement

The UAE's nuclear energy program is based on the cumulative experience of the global nuclear energy industry. The Government has worked closely with international industry bodies to adopt and implement best practices and guidelines for the development of peaceful nuclear energy, and ENEC's program is built on the most rigorous international standards of safety, transparency and security.

This approach has received the full support and confidence of the international community, with Government officials, non-proliferation advocates and energy experts worldwide describing the UAE as a model for countries interested in exploring nuclear energy for the first time.

The UAE peaceful nuclear energy program has made a firm commitment to build upon the best practices of the global nuclear energy industry in all aspects of its construction and operations.

In 2009, the UAE Government established the International Advisory Board (IAB) to provide independent, expert assessment of the UAE's peaceful nuclear energy program, reporting directly to the nation's leaders.

On a semi-annual basis, IAB members review the program from five key perspectives: safety, security, non-proliferation, transparency and sustainability. Members provide their insights into how the program can be optimized in line with these objectives in a report that is made publicly available. This ensures that both domestic and international stakeholders are able to monitor the program's performance against the highest international standards. For more information visit: www.uaeiab.ae.

In addition to the IAB, ENEC routinely seeks guidance from an extensive network of organizations whose members include world-renowned experts in nuclear energy. These organizations include:

International Atomic Energy Agency (IAEA)
As the international center of cooperation in the nuclear field, the IAEA was established in 1957 within the United Nations family. The Agency works with its Member States and multiple partners worldwide to promote safe, secure, and peaceful nuclear technologies. The Agency undertakes inspections of peaceful nuclear facilities, checks inventories, and conducts sampling and analysis of materials.
www.iaea.org/

Institute of Nuclear Power Operations (INPO)
- INPO works to help the nuclear energy industry achieve the highest levels of safety and reliability excellence through plant evaluations, training and accreditation, events analysis and information exchange, and assistance.
http://www.inpo.info/Index.html

World Association of Nuclear Operators (WANO) - Created to improve safety at every nuclear power plant in the world, WANO was formed by nuclear operators worldwide to exchange operating experience so that members can work together to achieve the highest possible standards of nuclear safety.
www.wano.info/en-gb

IAEA Director General Yukiya Amano, H.E. Ambassador Al Kaabi and Mohamed Al Hammadi ENEC CEO

1.3 ENEC's Program and Progress

1.3.1 The Barakah Nuclear Power Plant

Construction of the UAE's first nuclear energy plant is now well underway at Barakah, in the Western Region of Abu Dhabi, and continues to progress safely and steadily. The Barakah Nuclear Power Plant (Barakah NPP) will consist of four nuclear power generating units with a combined capacity of approximately 5,600 MW, and their associated facilities.

1.3.2 Preparing for Operations

In parallel to ENEC's large-scale construction program, the organization is focused on recruiting, training and mobilizing a team of highly skilled nuclear energy professionals who will be at the very heart of its world-class nuclear operating company when operations begin in 2017.

By 2020, ENEC will need approximately 2,500 highly trained personnel – the operators, engineers, technicians and support staff responsible for the safe operations of the plants in Barakah. This growing team is drawing from international best practices to develop and implement all aspects of its management and operations; ensuring that Barakah will benefit from world-class standards in terms of safety, security, reliability and transparency from the outset.

1.3.3 KEPCO – Prime Contractor

In 2009, ENEC selected a consortium led by the Korea Electric Power Corporation (KEPCO) to design, build and help operate the UAE's first nuclear energy plants.

ENEC's extensive year-long prime contractor selection process was designed to identify the best long-term partner for the UAE. All bidders were evaluated by a team of 75 experts in the field, who assessed potential partners in terms of safety, deliverability, contract compliance, human resource development, and commercial competitiveness.

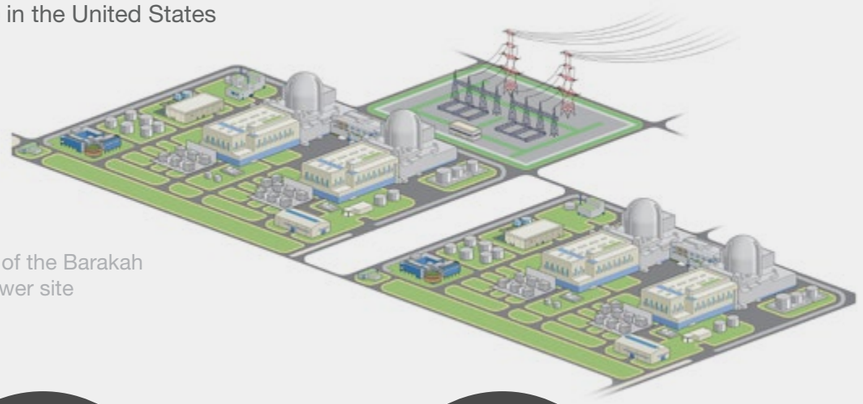
KEPCO is a South Korean government-owned utility, and maintains the world's fifth largest nuclear energy business, operating 23 commercial nuclear energy reactors with five more units currently under construction. With more than 30 years of experience in nuclear technology and know-how on operation of nuclear power plants, the World Association of Nuclear Operators (WANO) recognizes KEPCO as a world leader in safety, plant reliability and efficiency.

1.3.4 Advanced Technology

Barakah will be home to four third-generation plus (3G+) reactors called the APR1400. This advanced design achieves the highest industry standards of safety, operational performance, environmental impact and operating life.

The APR1400 is a Pressurized Water Reactor (PWR) and produces 1400 Megawatts of electricity. Each unit has an estimated operational life-span of 60 years, subject to regulatory approval. The APR1400 is based on the System 80+ design, which was certified by the Nuclear Regulatory Commission (NRC) in the United States of America.

As a 3G+ reactor, the APR1400 safety system is set up to prevent or mitigate severe accidents by incorporating passive safety systems that work to ensure safe reactor shutdown, removal of decay heat and prevention of radioactive releases. The design for the UAE plants has been further enhanced to fulfil the latest requirements for earthquake safety and aircraft impact resistance.



A rendition of the Barakah Nuclear Power site

1.3.5 Project Timeline and Update

Nuclear-related construction of Unit 1 commenced in July 2012, following the receipt of the Construction License from FANR for Units 1 & 2 and a No Objection Certificate from EAD.

As of December 2014, Unit 1 is more than 68 percent complete and its Reactor Containment Building (RCB) dome structure is complete. Unit 2 is 38 percent complete and overall, all four units are 40% complete.

In 2017, ENEC's first 1,400 MW unit is scheduled for completion. Additional units will follow at 12 monthly intervals, with the fourth unit set to commence commercial operations in 2020, pending regulatory reviews and licensing.

- **2008** — Publication of the UAE Policy on the Peaceful Use of Nuclear Energy
- **2009** — UAE Adopted its Federal Nuclear Law
  - Launch of the Emirates Nuclear Energy Corporation
  - Prime Contractor Selected
- **2010** — Initial Drilling
- **2012** — Pouring of Safety Related Concrete
- **2014** — Reactor Vessel Setting
- **2016** — Fuel Loading*
- **2017** — Complete Unit 1*
- **2018** — Complete Unit 2*
- **2019** — Complete Unit 3*
- **2020** — Complete Unit 4*

*pending regulatory approval

2

Sustainability at ENEC

2.1 Sustainability at ENEC

Sustainability is at the heart of the UAE's long-term development agenda, led by the goal to meet the needs of the present without compromising the resources of future generations to meet their own energy demands.

ENEC is playing an important role in the country's sustainable development journey, and is working to deliver on a key national sustainability goal – to meet the country's future energy demands in a safe, clean, reliable and efficient manner. Every day, the organization moves closer to realizing its vision to power the future growth and prosperity of the UAE with safe and sustainable nuclear electricity.

In delivering on this vision, ENEC will provide the nation with greater energy security, diversification and energy independence. In tandem, this safe and abundant new energy source will create a lasting impact on the UAE's economy by stimulating new industries across the country, while increasing the knowledge, capability and employment of the people of the UAE.

In the five years since the organization was established, ENEC has witnessed a rapid transformation into the sophisticated nuclear company seen today. The organization now boasts one large and highly skilled team, who collectively share the same clear focus – to deliver safe and sustainable nuclear energy to the UAE in 2017.

ENEC's sustainability program, established by the HSES Division, forms the foundation on which ENEC will deliver its objectives. The program is focused around three central pillars of sustainability - economy, environment and society, and is built on a foundation of good governance, strong management, and extensive local, regional and international stakeholder engagement. As the organization continues to grow, ENEC remains committed to the evolution and development of its sustainability program, to ensure the organization continues to meet and respond to the needs of its people, the environment, and the nation.

2.2 Governance and Management

Comprehensive management and effective governance systems are vital to ENEC's long-term success and sustainability. ENEC's governance architecture provides the framework for the organization's activities, outlining the mechanisms, systems and controls that ensure effective stewardship and accountability. ENEC's governance approach rests on five pillars:

1. Effective decision-making.
2. Structured and systematic approach to performance management.
3. Adequate risk management and control.
4. Required disclosure and transparency.
5. Ethical conduct and professional relationships with our employees, stakeholders and clients.

More information on the governance architecture and its principles can be found on the corporate website:
www.enec.gov.ae/about-us/governance-architecture.

2.2.1 Board of Directors

The ENEC Board of Directors (Board) is the ultimate authority responsible for the oversight of the organization, and is accountable to the Government of Abu Dhabi. It is composed of some of Abu Dhabi's leading executives, as well as international energy experts.

The Board consists of six independent and non-executive members, under the Chairmanship of H.E. Khaldoon Khalifa Al Mubarak. The term of each Board membership is three years. Currently the Board includes one female member, thus achieving 14% female representation. ENEC's Board of Directors currently consists of the following members:

H.E. Khaldoon Khalifa Al Mubarak (Chairman)
Chairman of the Abu Dhabi Executive Affairs Authority, which provides strategic policy advice to the Chairman of the Abu Dhabi Executive Council, of which he is also a member. He is also CEO and Managing Director of the Mubadala Development Company, and Chairman of Abu Dhabi Motorsports Management, the Abu Dhabi Media Zone Authority and Emirates Global Aluminium (EGA). Additional positions held also include Deputy Chairman of the Urban Planning Council and a member of the Abu Dhabi Council for Economic Development.

H.E. Sheikha Lubna Bint Khalid Al Qasimi (Member)
UAE Minister of International Cooperation and Development.

Mohammad A. Sahoo Al Suwaidi (Member)
Chairman of Executive Committee & Member of ENEC Board of Directors.

David V. Scott (Member)
Executive Director of Economic and Energy Affairs at the Executive Affairs Authority of Abu Dhabi Emirate.

Awaidha Murshed Ali Al-Marar (Member)
Acting Chief Executive Officer of Musanada.

Saeed Fadhel Al Mazrooei (Member)
Chief Executive Officer of UAE Operations for Emirates Global Aluminium.

Mohammed Hamdan Al Falahi (Member)
Senior Project Manager Executive Council, Vice Chairman's Office of Abu Dhabi Emirate.

The Board has four standing committees overseeing the organization's activities and giving clear direction.

ENEC Board of Directors Committees	
Committee on Nuclear Power (CNP)	The committee oversees and advises the Board 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 Committee on Nuclear Power consists of three Board members along with external members who have extensive prior nuclear industry experience.
Audit, Risk and Compliance Committee (ARCC)	The committee assists the Board in the discharge of its responsibilities overseeing the Audit, Governance, Risk Management and Compliance functions at ENEC. The ARCC is composed of four members, and chaired by the Board Deputy Chairman. One member of the committee is independent from the ENEC Board (not an ENEC Board member).
Human Capital Committee (HCC)	The HCC, which is composed of at least two Board members, reviews and advises the Board on issues regarding human resources and staffing, compensation and senior executive succession planning.
Executive Committee (EC)	The EC is composed of at least three members, two of whom must be Board members. The EC assists the Board in fulfilling its oversight responsibilities for project deliverables of a nonnuclear nature and in liaising with external stakeholders to resolve any outstanding multiparty issues associated with the project.

Further information on the Board can be found on the ENEC website.
www.enec.gov.ae/about-us/board-of-directors

2.2.2 Auditing and Accountability

ENEC has a well-established internal audit function that acts as an assurance provider to the Board of Directors, reporting directly to the Board via the ARCC. It conducts annual risk assessments across the full program covering aspects such as project, schedule, performance, finance, ICT, human resources and any audit-related issues that arise on an annual basis. ENEC Internal Audit adheres to the standards of The Institute of Internal Auditors and the requirements set by Abu Dhabi Accountability Authority (ADAA), and are subject to periodic internal assessments by ADAA.

As part of the accountability structure, ENEC has an Anti-Fraud and Misconduct Program managed by ENEC Internal Audit. This allows Whistleblowers to raise concerns through various reporting mechanisms including Email, Mail, and web reporting on ENEC website http://www.enec.gov.ae/reporting. Reporting through ENEC website also allows anonymous reporting by both internal and external parties.

The ADAA, as well as ENEC's regulators, conduct-periodic external audits as part of the Abu Dhabi government accountability structure. For further information see www.adaa.gov.ae.

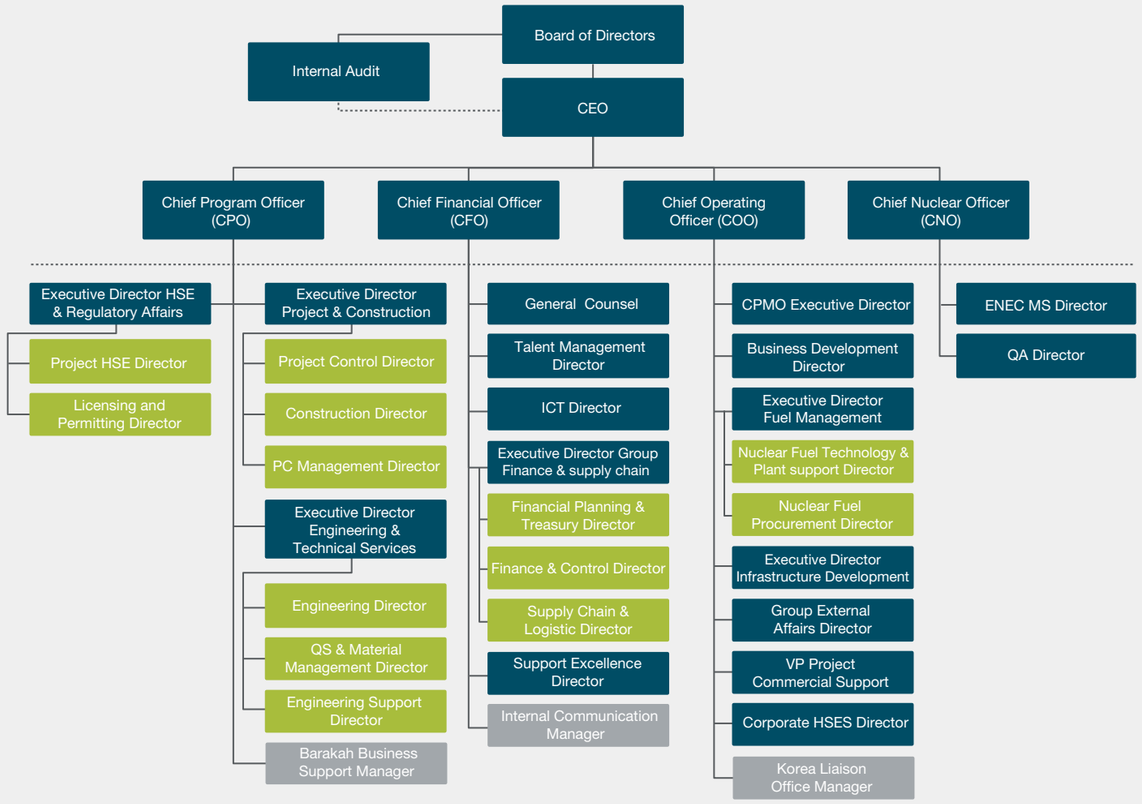
2.2.3 Management Structure

ENEC's overarching strategy, executive direction and guidance for the organization are led by the executive management team headed by Mr. Mohamed Al Hammadi, ENEC's Chief Executive Officer (CEO), reporting to the Board of Directors.

Together, ENEC's leadership team brings a strong commitment to the safe delivery of the program, operational excellence and a clear focus on optimizing the benefits of nuclear energy for the long-term development of the nation.

ENEC's organization structure is derived from the organization's three Strategic Goals that are Guarantee Project Delivery, Ensure Operational Readiness, and Support and Develop Capability. It builds on the key principles for good governance, empowering the organization to deliver against these strategic goals and objectives. The executive management team uses comprehensive business, project and contractor management systems in order to monitor and facilitate project delivery to ensure continuous improvement across all aspects of the business.

Figure 2 – ENEC's Organization Structure



2.2.4 Performance Monitoring

The success of ENEC's mission depends on strong performance management across all functions of the business. Effective performance management helps to systematically measure the achievement of the organization's strategic goals and objectives, while monitoring the effectiveness and efficiency of processes with the aim of improving overall performance.

ENEC's Performance Management Framework sets out how ENEC's Vision, Mission, and Values translate into Goals, Objectives and Critical Success Factors (CSFs) across the organization. It is designed to ensure a systematic approach and hierarchy for cascading the organization's strategy throughout all levels of the organization, from the Board right through to individual employees.

At a corporate level, a monthly performance dashboard in addition to quarterly and annual performance reports are used to assess progress and drive forward corrective actions. At an individual level, every ENEC employee conducts a formal performance review each year, to analyze the previous year's overall performance and set objectives for the coming year. These tools ensure the organization remains on track to deliver its project to schedule, the highest international standards and Federal regulation.

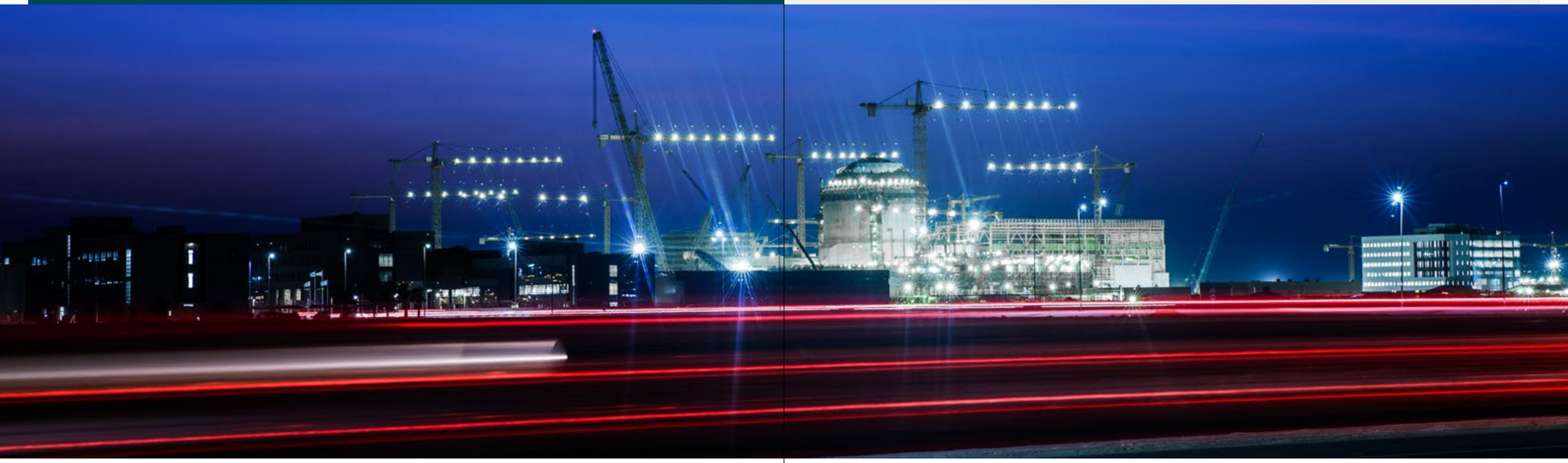
2.2.5 Business Principles, Ethics and Compliance

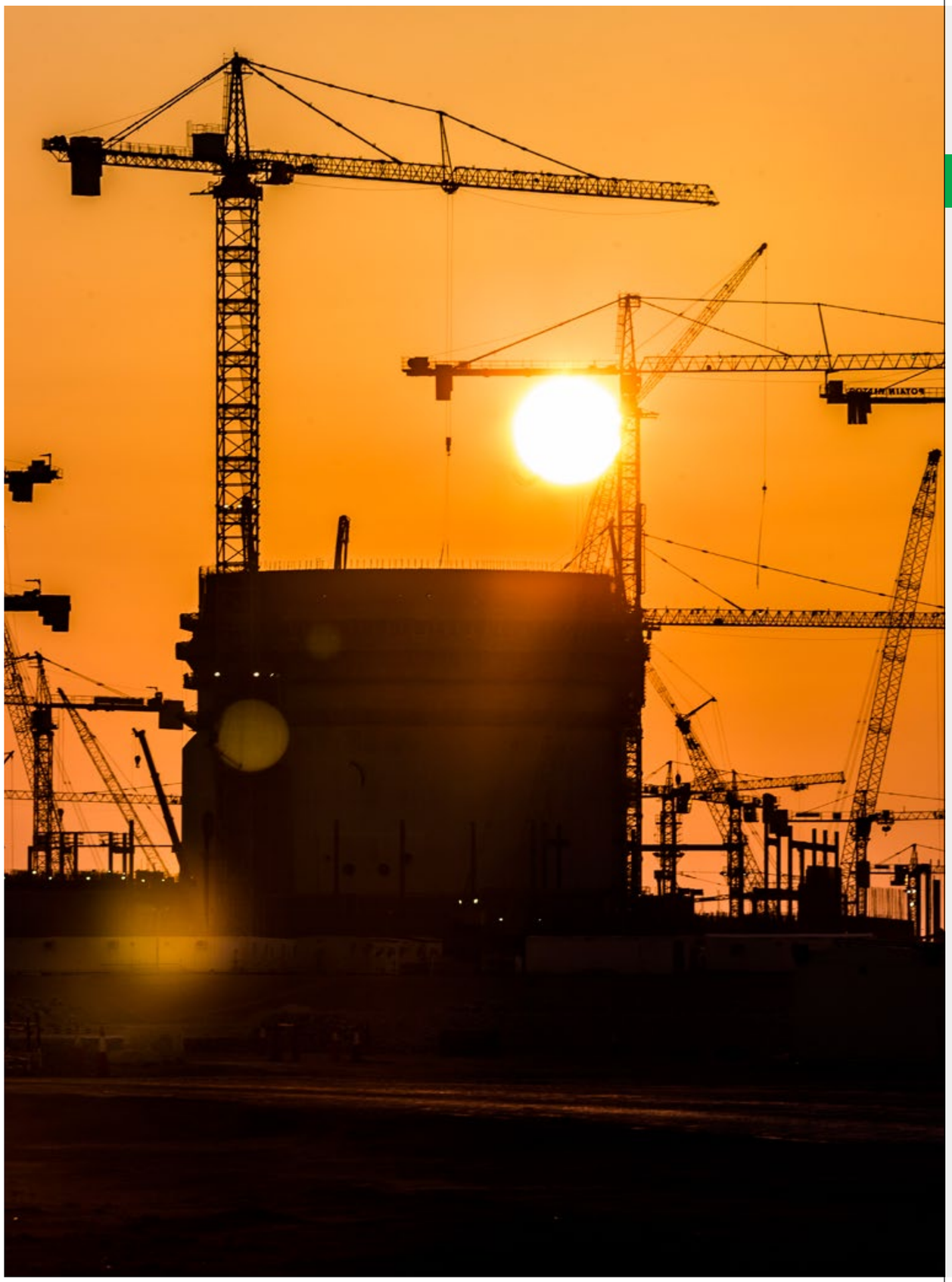
ENEC has a Code of General Business Principles and Ethics (Code of GBPE) which presents the organization's values and outlines the principles of model behavior that all employees, contractors and ENEC representatives are expected to follow while conducting their duties. This code is managed by the General Counsel department which provides oversight to management on its implementation.

The Code of GBPE ensures ENEC employees are aware of what is considered ethical and correct in day to day business and how they should conduct themselves in accordance with the highest standards of personal and professional integrity.

It is mandatory for all staff to read and acknowledge the Code of GBPE upon joining ENEC, and it will soon be mandatory core reading for all staff on an annual basis. In 2015, ENEC will also develop and implement organization wide training on fraud, bribery and corruption as part of the overall compliance framework.

Compliance with the Code of GBPE is the responsibility of management, operating under the General Counsel, who also report quarterly to the ARCC. The full text of the Code of GBPE can be accessed online. www.enec.gov.ae/about-us/our-code-of-ethics



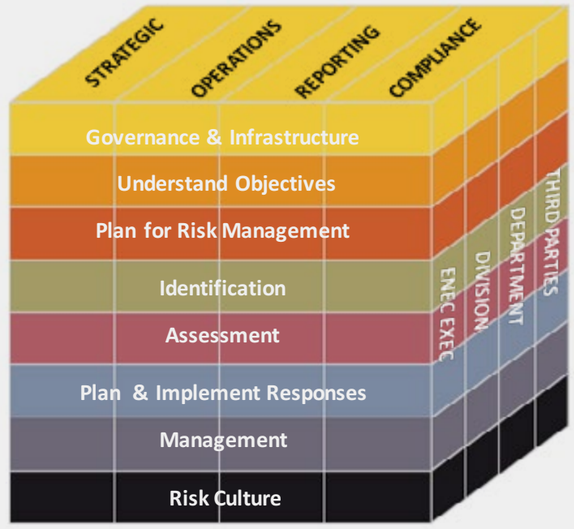


2.2.6 Risk Management

From the very beginning of its program, ENEC has established and continues to rigorously implement a robust Enterprise Risk (Threat and Opportunity) Management (ERM) framework.

The purpose of the framework is to ensure that risks are proactively managed in a consistent, effective and efficient manner at all levels within ENEC and its subsidiaries.

Figure 3 – ENEC ERM Framework



The ERM process ensures that FANR's requirements regarding risk management are met and the audit requirements of the ADAA (Abu Dhabi Accountability Authority) are satisfied. ENEC's ERM framework takes reference from the ISO 31000 Risk Management and COSO ERM standards and frameworks, ensuring ENEC consistently works to industry best practices.

An Executive Risk Management Committee (ERMC) has been formed which reports directly to the CEO, ensuring ERM is not implemented merely as a compliance-driven exercise but is incorporated as an integral element of organizational decision-making. This committee also provides an effective escalation channel to the Board ARCC.

A Steering Group of Risk Champions has also been formed to embed risk management within the company culture. Risk Champions are assigned within every department to support and facilitate ERM implementation and oversee the ongoing risk review processes. To enhance risk awareness, all staff are required to complete ERM General Overview Training.

GRI G4-25

2.3 Stakeholder Engagement

Effective engagement with ENEC's various stakeholder groups has been a key priority for the UAE peaceful nuclear energy program since its inception. In line with the commitment to openness and transparency detailed in the UAE's policy on nuclear energy, ENEC works diligently to ensure regular, accurate and open communication with its stakeholders in order to build trust and awareness for its program.

As a nation new to nuclear energy, an important aspect of stakeholder engagement has been education. In this capacity, ENEC works to provide credible, factual information regarding nuclear energy to communities across the UAE in order to increase understanding about the technology.

ENEC focuses on achieving four objectives as part of its pro-active approach to stakeholder engagement, these are:

- To ensure ongoing education about nuclear energy as a source of safe, reliable, clean and efficient electricity.
- To ensure awareness and understanding about the program at every stage of its development.
- To ensure our stakeholders have the opportunity to provide input into the program.
- To continue to listen and respond to stakeholder feedback, issues and concerns through genuine two-way communication.

2.3.1 Stakeholder Mapping

ENEC has a large and diverse stakeholder base, which includes a variety of individuals, groups and communities who have an interest in the UAE peaceful nuclear program. Using a tiered and categorized approach, ENEC has mapped these primary stakeholders in an effort to understand stakeholder expectations and ensure they are being met throughout each phase of the program.

When categorizing its stakeholders, ENEC considered a number of factors including the dependency of each stakeholder to the program, their role to ENEC, their geographical proximity to the Barakah project, issues related to the project that may impact these groups, and areas of interest related to the project. The resulting stakeholder map represents ENEC's interactions on both a national and international scale.

GRI G4-25, G4-27

Stakeholder	Description	Interest/Role/Expectations	Read More About ENEC's Engagement
Employees	All persons directly hired and paid a salary by ENEC.	Safe, secure and dynamic work environment together with the skills development and support required to deliver effectively.	See report sections 3.2, 3.4, 5.1, 5.2, 5.3
Suppliers and Contractors	UAE and international companies that supply a range of goods and services, for all phases of the program.	Regular information about volume and nature of contracts available, QA standards and requirements to tender. Prompt payment and transparency in the selection	See report sections 3.2, 3.4, 4.3, 4.4
Government Entities	Federal, regional and local government ministries and authorities.	Safety, security, environment, regulation, governance, emergency preparedness, shared infrastructure and other resources.	See report sections 2.2, 3.1, 3.2, 3.3, 4.1
Affected Communities and Individuals	Residents of the UAE, in particular of Abu Dhabi and the Western Region; the location of the project site.	Potential changes caused during project conception, construction, operations and decommissioning.	See report sections 1.3, 2.3, 6.0
Nuclear Industry Organizations	Nuclear-specific industry bodies including multilateral organizations, associations and advisory bodies.	Information sharing and knowledge transfer, peer assessment, industry best practices, safety and security, technology, etc.	See report sections 1.2, 1.3, 3.2
Media	Local, regional and international media.	Ongoing access to timely, comprehensive information about the project.	See report sections 1.3, 2.3, 2.4, 6.0
International Organizations and Governments	Multilateral organizations, governments of GCC nations, governments of civilian nuclear programs.	Ongoing access to timely, comprehensive information about the project.	See report sections 1.2, 1.3
Academic Institutions	Federal, regional and international academic institutions.	Involvement in human capacity development, vocational and technical training, bachelors and masters programs.	See report sections 5.1, 5.2, 5.3
Non-Governmental Organizations	Environmental and social interest groups.	Potential environmental and social impacts/issues during all phases of the project.	See report sections 3.1, 3.2, 3.3, 3.4, 4.4

2.3.2 Channels of Communication

ENEC utilizes multiple communication channels to reach its diverse stakeholder groups. These include various forums and meetings, delegations and visits to the Barakah site, as well as community events, conferences and careers fairs.

ENEC also regularly updates stakeholders using its bi-annual Program Executive Update report. In addition, numerous educational collaterals on the program and the use of traditional communication channels such as ENEC's corporate website, email and phone communication support to connect with the organization's stakeholders. ENEC also has an active presence on social media, interacting with audiences on platforms such as Facebook, Twitter, Instagram, YouTube and LinkedIn.

ENEC's strategic approach to engaging its stakeholders has been recognized by the communication industry. The organizations external affairs and Communications department was recognized with two consecutive Middle East Public Relations Association (MEPRA) Awards for Best Government Communications Practice in 2012 and 2013, as well as Best Internal Communications MEPRA Award in 2014.

The organization encourages a strategic approach to its communication and outreach activities and prioritizes direct communication based on objective and scientific data presented in a user-friendly manner. All communication with stakeholders is provided in Arabic and English. More information on all of our stakeholder groups and our channels of communication is provided in Appendix B.

2.3.3 ENEC Forums and Public Support

ENEC hosts regular public forums to increase awareness and understanding of the UAE's peaceful nuclear energy program. These interactive and educational meetings are part of ENEC's commitment to public outreach and community engagement. They are open to all residents and citizens and provide an open forum where the public can receive key program updates directly from ENEC's CEO, as well as members of the organization's senior leadership team.

In 2014, ENEC hosted events in Abu Dhabi and Sila in the Western Region, which were attended by nearly 500 people. All forums include an open question and answer session where attendees can raise any questions with a panel of Emirati experts and receive direct responses in Arabic. Topics covered in the latest forums included radiation, the efficiency and safety of nuclear energy, nuclear energy's respect for the environment, as well as career opportunities.

The forums are presented in Arabic with simultaneous translation into English, and are also streamed live via the organization's website for those who cannot attend the event in person. The events are also covered on social media, with followers posting comments and questions for the panel about ENEC's goals, the latest updates from the UAE nuclear program, as well as recruitment and scholarships.

Since 2010, ENEC has held more than 18 forums in the Western Region and across the UAE, attracting more than 6,500 attendees. The satisfaction rate of public forums has increased from 92 percent in 2013 to 98 percent in 2014.

In addition, ENEC also conducts periodic public opinion surveys in order to understand and respond to the level of support for nuclear energy among the general population. Results have been positive and improving since opinion polls began in 2011, with 93 percent of residents believing that peaceful nuclear energy is extremely important, very important or important for the nation in 2013; up by four percent from 2012.

2.3.4 International and Industry Engagement

ENEC continues to engage extensively with industry bodies and attend both local and international events, in order to update stakeholders on the latest progress from Barakah and instill further confidence in the UAE's program meeting the highest international standards of safety, quality and security.

Some of the key engagements from 2014 include:

- Hosting a delegation from the **International Atomic Energy Agency (IAEA)** at Barakah, led by Director General Yukiya Amano. Speaking at the site, the Director General said he was impressed with what he had seen and said the IAEA will continue to support the UAE's peaceful nuclear energy program.

- Hosting a delegation from the **World Association of Nuclear Operators (WANO)** at Barakah. Led by the WANO Chairman, Jacques Régaldo, the delegation was given a comprehensive tour of ENEC's construction site and an update on the status of the program by ENEC's Chief Executive Officer, Mohamed Al Hammadi.

- Leading a delegation to attend the inaugural **World Nuclear Exhibition (WNE)** 2014 in Paris, an international trade event which brings together the key players and decision makers in the nuclear energy industry to share knowledge and discuss business on a global scale. ENEC participated in the event's opening panel discussion alongside other key industry leaders from around the world.

- Participating in the **World Future Energy Summit 2014** in Abu Dhabi, one of the foremost global events dedicated to advancing future energy, energy efficiency and clean technologies.

- The ENEC CEO delivering a keynote address at the prestigious **Abu Dhabi Energy, Industry and Infrastructure Conference 2014**, speaking on empowering the UAE through energy diversification.

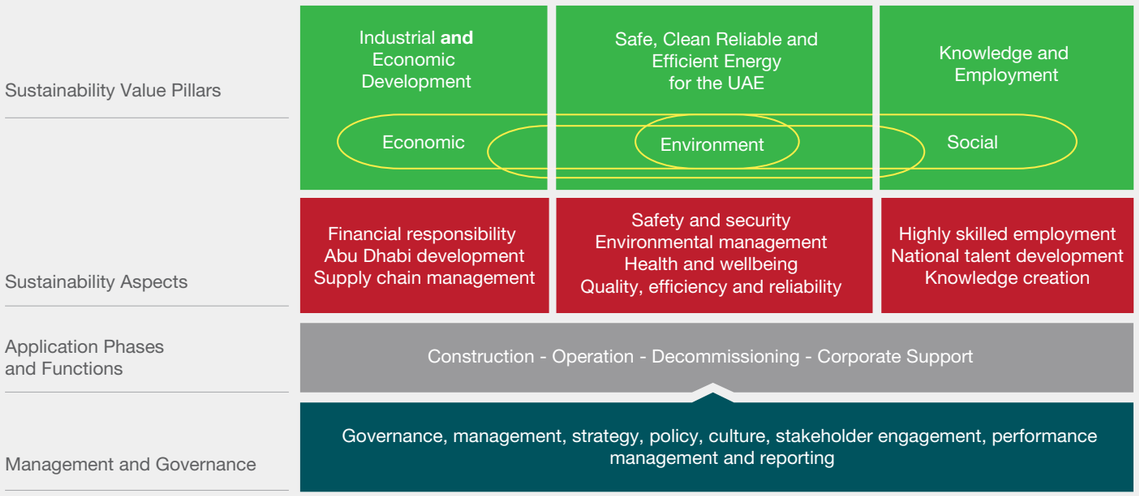
- Participating at the **Abu Dhabi Quality Forum 2014**, where ENEC's CEO spoke as part of a panel discussion on the role of the UAE's peaceful nuclear energy program in enabling business opportunities for UAE companies. During the panel the CEO announced that to date, more than US $1.7 Billion in contracts have been awarded to Emirati companies for a range of products and services to support the construction of the UAE's first nuclear energy plant.

2.4 Sustainability Management

In pursuit of the company Mission and Vision, the ENEC HSE & Sustainability Division has developed a sustainability management program that focuses the organization's sustainability efforts towards three Sustainability Value Pillars, identified for ENEC. These value pillars are linked to ENEC's overarching strategic goals and objectives, and are designed in alignment with the sustainable development strategy of the Emirate of Abu Dhabi and with the UAE policy on the development of nuclear energy.

This approach is captured in the organization's sustainability framework, detailed below. The framework aims to ensure ENEC's key sustainability priorities are clearly identified and addressed across all levels of the organization.

Figure 4 – ENEC HSE&S Division, Sustainability Framework



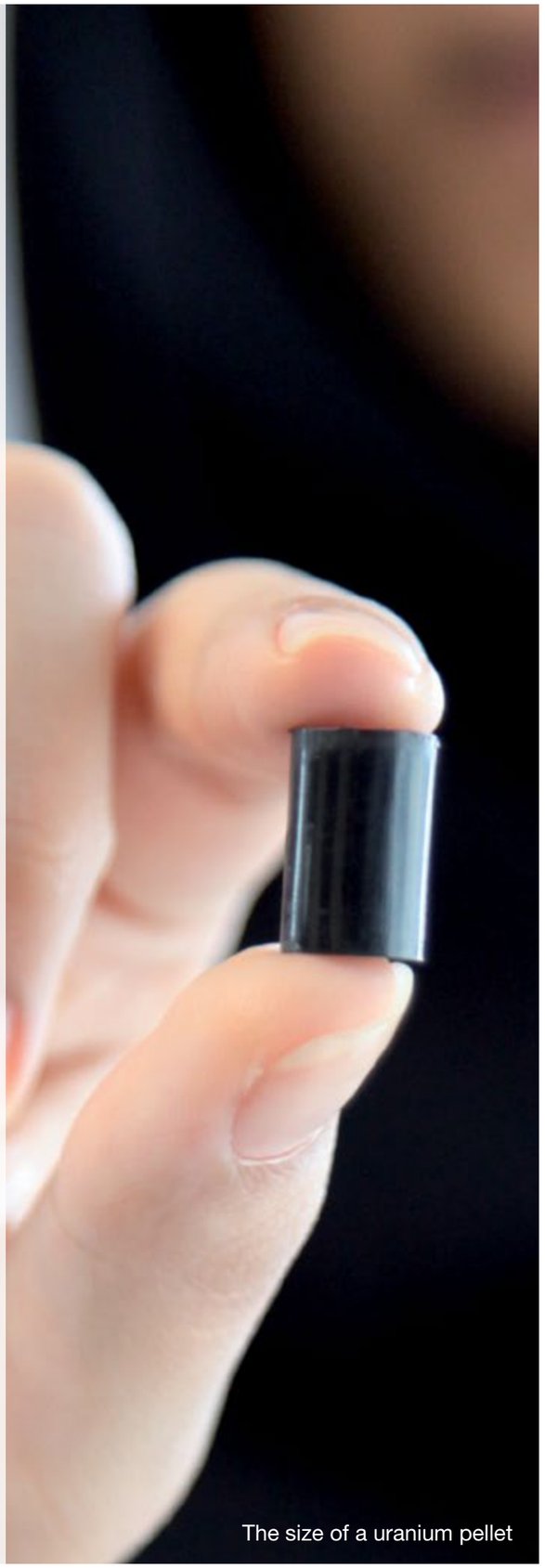
The Sustainability Value Pillars summarize the organization's long term economic, environmental and social impact, through the delivery of:

- **Safe, clean, reliable and efficient energy for the UAE** - ENEC's primary contribution is the creation of significant volumes of safe and clean electricity for the UAE. This will help to reduce the UAE's greenhouse gas (GHG) emissions and provide long term energy security for a rapidly growing population.
- **Industrial and economic development** – ENEC is supporting the nation's economic growth and diversification by building a local nuclear energy industry that can contribute to national, regional and international nuclear supply chains.
- **Knowledge creation and employment** – The UAE peaceful nuclear energy program will deliver thousands of high-value jobs for our citizens, while also bringing new knowledge and expertise to the country. The ENEC Program represents an opportunity for talented and highly-skilled Emiratis to become leaders in a rapidly growing and international sector.

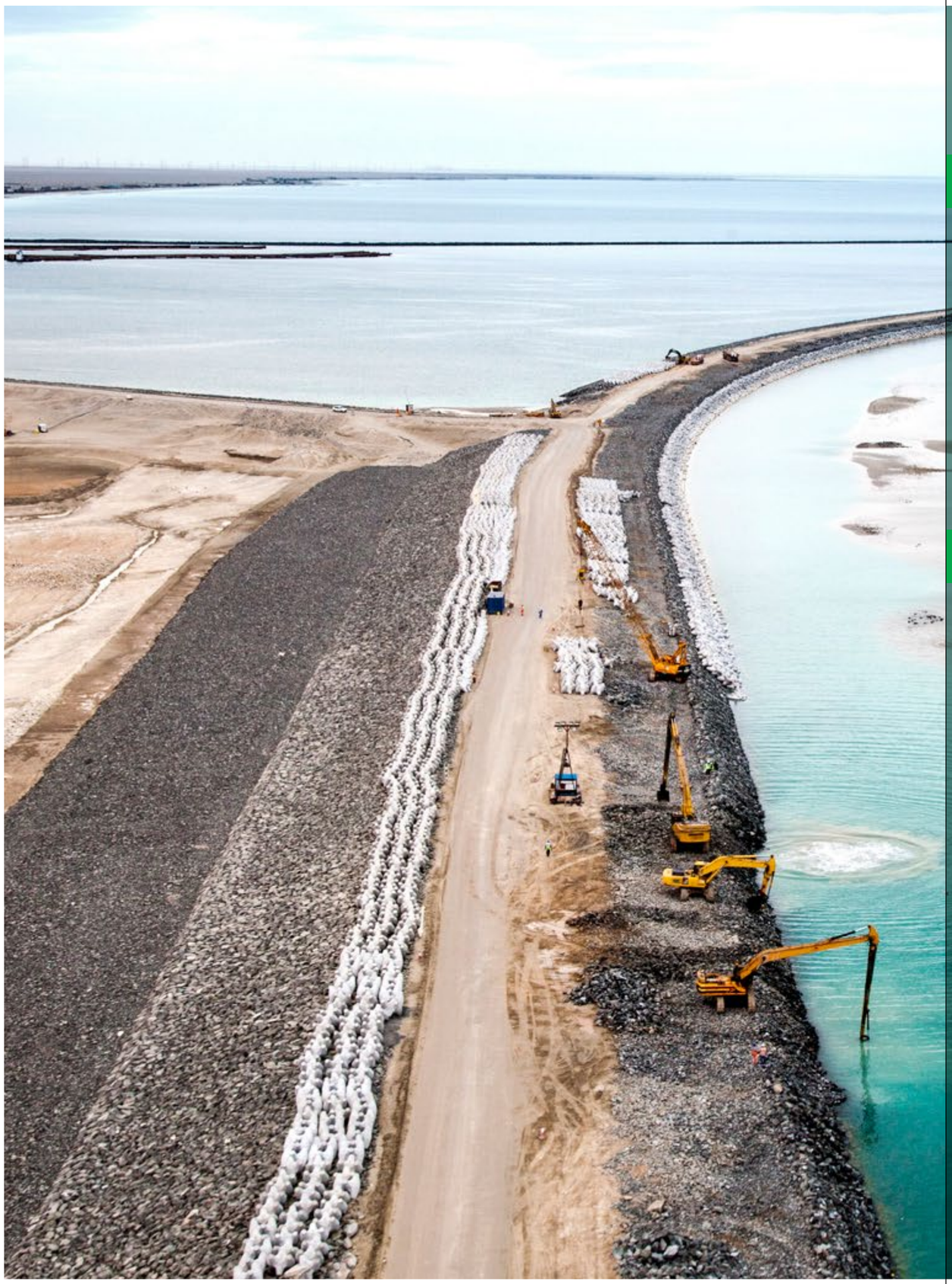
Through the organization's value pillars, the department's sustainability management program brings special emphasis to a number of important areas of focus, classified as sustainability aspects. These aspects identify a range of important topics that must be addressed in order to ensure the continued success of ENEC's HSE&S Division's Sustainability Program now and into the future. Each of the sustainability aspects has an associated objective, designed to provide guidance on what should be monitored and measured within these various areas of focus. These aspects and their objectives have been determined using a materiality process that is outlined in further detail in Appendix A.

As shown in the ENEC HSE&S Division's Sustainability Framework (figure 4), each sustainability aspect will be considered across the lifecycle of the project from the current phase of construction, to the safe operation of the four plants, and eventually into decommissioning. While ENEC has many years of safe and sustainable operations ahead before it enters the decommissioning stage, this stage of development must be considered now in order to ensure sustainability. Underpinning the sustainability framework is a layer of systems and processes that make up the organization's overall management and governance functions, which support the strategic and practical implementation of sustainability at ENEC.

The sustainability value pillars and sustainability aspects that form the basis of the HSE&S Division Sustainability Framework have been used to structure the remaining chapters and sections of this report, highlighting key issues and topics related to each of the pillars.



The size of a uranium pellet



2.4.1 Commitment to External Initiatives

ENEC's approach to sustainability is aligned to a range of national and international frameworks. Internationally, ENEC uses the Global Reporting Initiative (GRI) G4 guidelines in the preparation of this report and to guide its sustainability program.

Nationally, ENEC is a member of the Abu Dhabi Sustainability Group (ADSG). The ADSG is a membership organization whose mission is to promote sustainability management in Abu Dhabi by providing learning and knowledge sharing opportunities for government, private companies and not for profit organizations. Members must sign the ADSG Declaration and commit to adopt best practices of sustainability management, complete annual sustainability reporting and to actively participate in ADSG activities.

2.4.2 Sustainability Program Implementation

In 2014, ENEC created a dedicated Sustainability and Corporate Social Responsibility (CSR) Working Group responsible for championing the implementation of sustainability management across the organization. This group consists of representatives from across departments, and regularly convenes to drive forward the Sustainability & CSR Programs and reporting cycle.

A number of sustainability program commitments have been set for 2015, as outcomes of these working group meetings. These include:

1. The continued development and implementation of a Sustainability and CSR frameworks.
2. Management approval for the Sustainability and CSR Working Group charter.
3. Awareness sessions for employees to increase understanding of sustainability at ENEC.
4. Benchmarking of ENEC's sustainability performance against national energy companies and international nuclear energy companies.
5. Review and update ENEC's 2014 material sustainability issues using the GRI G4 guidance on materiality assessment.

In addition to the efforts of the Sustainability and CSR Working Group, ENEC was proud to support a number of individual sustainability and CSR initiatives implemented by various departments throughout 2014.

03

Delivering Safe, Clean, Reliable and Efficient Energy for the UAE

3.0 Delivering Safe, Clean, Reliable and Efficient Energy for the UAE

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

Material Aspects:

1. Safety and Security
2. Environmental Management
3. Health and Wellbeing
4. Quality, Efficiency and Reliability

3.1 Safe, Clean, Reliable and Efficient Energy

ENEC is working to deliver a new source of safe, clean and abundant energy to the UAE - electricity that is needed to meet the country's growing energy demand. In 2017, ENEC's first reactor will begin connecting safe nuclear electricity to the national grid, providing the energy necessary to power the country's homes and businesses.

The leadership of the UAE studied various options to meet the country's rapidly growing energy demand. Nuclear energy was chosen as the most viable and attractive solution as it meets the country's economic, environmental, reliability of supply, and national infrastructure development requirements.

Nuclear energy utilizes safe and proven technology. The performance records of more than 400 nuclear energy facilities operating in more than 30 countries have demonstrated that nuclear energy is safe. In the UAE, ENEC is working to the highest international standards of safety and security, and our independent Federal regulatory authority, FANR, plays an essential role in ensuring that nuclear energy in the UAE is safe, secure and reliable.

The development of a peaceful nuclear energy program will help the UAE meet its sustainability commitments by providing a new form of sustainable, emissions-free energy. Nuclear is one of the most environmentally friendly forms of electricity production available today, with nuclear energy plants emitting virtually zero carbon emissions during operations. By 2020, ENEC's four nuclear energy plants will deliver 5,600 MW of low carbon electricity to the national grid and save the country an estimated 12 million tons of carbon emissions every year.

Nuclear energy is also efficient and reliable; it utilizes high-performing technology capable of producing significant volumes of electricity from a very small amount of fuel. One uranium pellet, the size of a fingertip, can deliver the same amount of energy as one ton of coal or 474 liters of oil - enough energy to power one household 24 hours a day for up to four months with almost no carbon emissions. Once loaded with fuel, a nuclear reactor can also produce constant, uninterrupted electricity for up to 18 months at 90 percent capacity – producing large stable volumes of baseload electricity 24 hours per day, 365 days per year.

3.1.1 ENEC Health Safety and Environment Management System

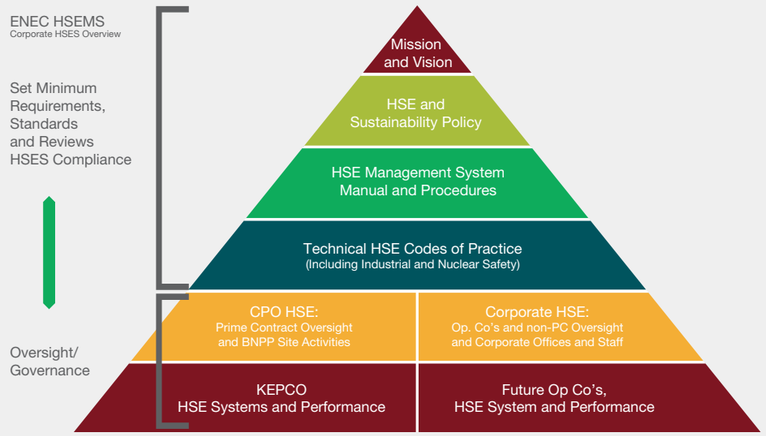
ENEC has established a comprehensive Health, Safety and Environment Management System (HSEMS) to ensure that the organization's activities and the complex and extensive construction program underway at site are managed to the highest standards of safety.

ENEC's HSEMS has achieved international accreditation to OHSAS 18001 International Occupational Health and Safety Management System specifications and the ISO 14001 Environmental Management System Standard. The HSEMS is also compliant with Abu Dhabi requirements and approved by OSHAD. In order to ensure continued understanding and implementation of the HSEMS, ENEC conducted a number of awareness sessions for employees and contractors both in Abu Dhabi and at the Barakah site.

Throughout the construction of the Barakah site, ENEC is responsible for oversight of KEPCO, its Prime Contractor. As such, ENEC has established a comprehensive inspection and auditing program, monthly reporting mechanisms and daily communication with contractors and staff regarding HSEMS compliance and performance. ENEC also conducts incident investigations, formal inspections and weekly safety site tours of Barakah NPP (including accommodation, medical and cooking facilities, mess halls, transport, fleet management and road safety assessments) as part of its contractor management program. In addition, ENEC reviews onsite HSEMS training courses provided by the Prime Contractor to ensure they meet project requirements.

In line with the organization's commitment to continuous improvement, ENEC has also developed a HSE Roadmap which designates a strategy to incrementally improve ENEC's HSE program and performance, including short and long-term actions. Benchmarked against international best practices (including site visits to the US and Korea), the HSE Roadmap communicates ENEC's HSE requirements and objectives for a healthy and safe workplace environment for its employees, subsidiaries, Prime Contractor, and the community. The roadmap includes a five-year plan for service delivery, as well as risk-based priority setting, resource allocation and policy focus. A quarterly off-site HSE workshop is attended by all relevant stakeholders to ensure alignment with the HSE programs and to discuss and address emerging challenges.

Figure 5 – ENEC HSE Overview



3.2 Safety and Security

Objective

Ensure that ENEC is a safe and secure place to work for employees, contractors and the community, through the development of a robust Culture of Safety.

3.2.1 Safety at ENEC

Culture of Safety programs are a cornerstone of the global nuclear industry. Collectively, over decades of proven operations, the nuclear industry has built such a strong safety record that other industries now consider the nuclear industry to be one of the benchmarks for safety best practices.

At ENEC, safety is the organization's primary value. Nothing is more important than ensuring the safety of the organization's staff, site and community. The highest standards of safety are consistently applied across everything the organization does to support the development of a healthy nuclear safety culture and ensure safety is engrained at all levels of the business.

ENEC works closely with the international nuclear community to develop and maintain the highest standards of safety, following established policies and procedures. ENEC management's commitment to establish and maintain a healthy culture of safety is founded on Institute of Nuclear Power Operations' (INPO) 'Traits of a Healthy Nuclear Safety Culture' (reference number 12-012) – which outlines the core safety values and behaviors necessary to keep safety as the top organizational priority at all times.

These behaviors and attitudes, which support the development of a healthy culture of safety, are:

1. Personal Accountability
2. Questioning Attitude
3. Effective Safety Communications
4. Leadership Safety Values and Actions
5. Decision-Making
6. Respectful Work Environment
7. Continuous Learning
8. Problem Identification and Resolution
9. Environment for Raising Concerns
10. Work Processes

All meetings at ENEC begin with a Safety Moment, to ensure that safety is maintained as top-of-mind at all times. Senior leadership also makes frequent and visible commitment to safety by including safety metrics at the top of monthly performance reviews.

Each and every employee at ENEC receives annual training on ENEC's safety principles and procedures, and leadership encourages a questioning attitude from employees to ensure that performance and safety standards are continuously improved upon. ENEC also conducts regular culture of safety self-assessments, the most recent completed in 2014, in order to identify any weaknesses and ensure enhanced safety performance. Regular safety audits are also a core part of ENEC's safety program, and the organization has implemented a Condition Reporting (CR) Program that facilitates proactive reporting of safety risks and near-miss incidents. This assigns responsibility for the implementation of corrective actions. All ENEC employees also have responsibility for stopping work activities where an existing or potential threat to safety is observed.

3.2.2 Occupational Safety

As ENEC's construction program continues to grow in complexity and scale, delivering effective safety programs to ensure the occupational safety of the thousands of workers and employees is a key priority for ENEC. The organization's robust safety programs are designed for both ENEC staff at the organization's Abu Dhabi HQ, as well as for the thousands of employees, contractors and subcontractors, from both ENEC and KEPCO, working at Barakah.

In addition to ENEC's ongoing safety training and awareness campaigns, in 2014, ENEC and KEPCO conducted several targeted safety campaigns focused on reducing identified risks to personal safety. These campaigns covered a variety of common safety threats such as hand and finger safety, working at heights, and commissioning.

ENEC has seen a marked improvement in its occupational safety performance record from 2013 to 2014, across all key employee indicators. The organization achieved a lost-time injury frequency rate (LTIFR) of zero amongst ENEC employees, a clear indication of the organization's commitment to the highest standards of safety and performance. A decrease of 24% in the total recordable case frequency rate (TRCFR) among employees has also been observed.

While there has been a slight increase in the LTIFR for contractor and subcontractor safety (which is monitored closely by ENEC) since 2013, there was a decrease in TRCFR of 19 percent. These trends reflect the increased workforce numbers recorded at site and the maturing nature of ENEC and KEPCO's injury reporting and classification processes among contractors and subcontractors.

Occupational Safety Performance	2013	2014
Number of employees	902	1,372
Number of contractors and subcontractor employees	11,886	16,997
Fatalities (employees, contractors and subcontractors)	0	0
LTIFR (employees)	0.7	0
LTIFR (contractors and subcontractors)	0.32	0.35
TRCFR (employees)	3.34	2.17
TRCFR (contractors and subcontractors)	4.15	3.37

* LTIFR and TRCFR are calculated per million work hours

3.2.3 Security

Conforming to the highest standards of safety and security is one of the six commitments made by the UAE in its nuclear energy policy. Consequently, and under the regulation of FANR and with guidance from the IAEA, ENEC is working with the Critical Infrastructure and Coastal Protection Authority (CICPA) to develop and implement the highest international standards of safety and security for site and plants.

CICPA is the Abu Dhabi Government agency tasked with handling the protection and security of the Emirate's vital assets and infrastructure.

3.2.4 Emergency Preparedness

In line with maintaining the highest international levels of safety and security, ENEC is required by regulation and committed to preparing for all possible scenarios. The organization has developed and implemented a comprehensive emergency preparedness and response program to ensure its staff are ready to respond in the unlikely event of an emergency situation. This program includes:

- Office emergency procedure, including specific scenario plans.
- Building-specific emergency response plans.
- Building-specific emergency first responders (floor wardens and first aiders).
- Emergency response equipment, including first aid kits, automated external defibrillators (AEDs) and emergency stair chairs.
- Staff emergency response training programs.
- Emergency response awareness campaign (e.g. emergency response posters, LCD screens, newsletter articles and safety alerts).

As part of the planning process, ENEC is continually learning from the experience of other nuclear energy plants around the world, and is implementing controls to prevent similar events from occurring at Barakah.

ENEC works together with CICPA, FANR, local stakeholders, as well as the IAEA and international nuclear experts to maintain a robust Emergency Preparedness and Response Plan. Together, these entities are working to ensure the development and adherence to global standards of emergency preparation and response are in place and well-tested ahead of the arrival of first nuclear fuel at Barakah, scheduled for 2016.

A dedicated Emergency Preparedness and Response team at ENEC is responsible for developing the organization's emergency response plan. The plan will be tested in accordance with Federal regulations, any residents living in a 50 kilometer radius of the site will receive regular information and training on what to do in the unlikely event of an incident. It is ENEC's duty to ensure all residents and site personnel fully understand the emergency response plan before the plant comes online in 2017. Details of the plan will be shared with the public well ahead of the commencement of operations in 2017.

Emergency drills are practiced at periodic intervals to test the effectiveness of ENEC's emergency management procedure, including; emergency communication, the timely response of the Emergency Response Team (ERT), adequacy of emergency response resources, and coordination between various agencies involved.

In 2014, 16 drills were completed in total, four in Abu Dhabi and 12 at Barakah. The drills focused on various emergency scenarios and the associated rescue operations, including fire, heat stroke, and working at height. Post-drill briefings were held after each exercise, where opportunities for improvement were identified and necessary corrective actions were initiated for continuous improvement of the emergency response process.

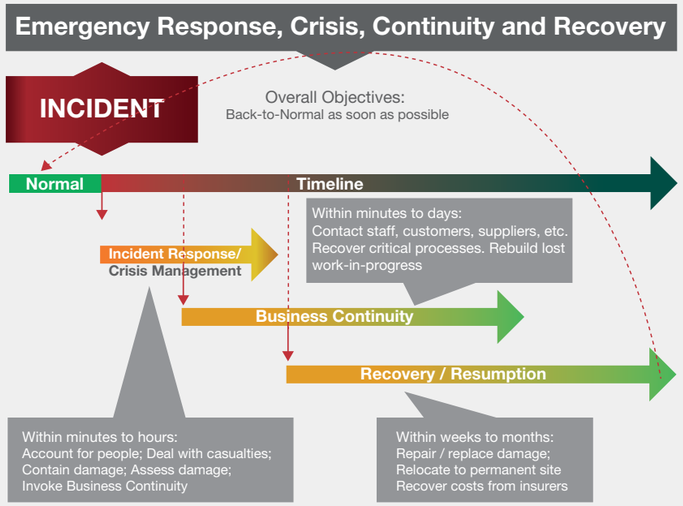
3.2.5 Business Continuity Program

Business Continuity plays an important role in ensuring the organization has the necessary processes and procedures in place to ensure that all essential functions can continue in case of a sudden event or disruption to business.

ENEC established its Business Continuity Management (BCM) Program in 2011, to ensure that the organization can maintain all critical activities with little operational or reputational impact should an incident occur. The BCM Program aims to put in place processes to ensure the resumption of time-sensitive business operations in accordance with pre-established timeframes; followed by the recovery of less time-sensitive business operations as required and restoration of the primary site and ultimate return to a permanent operating environment. ENEC's BCM Program fulfills the requirements of the international Business Continuity standard ISO 22301:2012.

The organization's BCM Strategy follows a multi-phased approach to recovery, which includes alignment and integration with ICT recovery requirements. ENEC is presently adding depth to its BCM Strategy through the introduction of BCM criteria to the pre-qualification of its suppliers.

Figure 6 – ENEC's BCM approach from response to recovery



ENEC's BCM Program, plans and arrangements are not considered fully reliable until fully tested, exercised and determined to be fit-for-purpose. To accomplish this, ENEC has developed a comprehensive plan under its BCM Exercise Roadmap for completing the necessary exercises to ensure that all strategies, policies, plans and procedures in place are adequate and meet the company's business continuity objectives. This roadmap is aligned with ENEC's overall organizational milestones of Fuel Load 2016 and the completion of Unit 1 in 2017, to ensure these processes are in place well ahead of the start of operations. Such exercises develop teamwork, competency, confidence and knowledge across members of the team and across departments.

3.3 Environmental Management

Objective

Adhere to all regulations while working to prevent pollution, preserve biodiversity, conserve water and energy resources and handle waste effectively.

Environmental sustainability is at the very heart of ENEC's program, and the organization is committed to operating in a manner respectful of its local environment throughout all stages of construction and operations. ENEC reports to its environmental regulator, Environmental Agency – Abu Dhabi, to regularly monitor and effectively mitigate any impacts the program may have on its surrounding environment, using a comprehensive environmental management system and oversight program.

Before construction at Barakah began, ENEC conducted one of the most extensive Environmental Impact Assessments (EIA) ever conducted in the Emirate of Abu Dhabi. Following this, a Construction Environmental Management Plan (CEMP) was also developed by an EAD approved third party consultant, and is now being implemented at Barakah.

The organization has also outlined its commitment to operating in an environmentally-conscious manner in the Barakah Environment and Sustainability Charter; an agreement co-signed by ENEC and its prime contractor, KEPCO. The charter sets out a series of obligations for both parties to ensure that environmental protection, habitat preservation, water and energy conservation, and sustainable waste management best practices are consistently applied at site.

Today, monthly monitoring and reporting of environmental performance is completed in accordance with EAD permit conditions and national environmental regulations. ENEC monitors environmental performance measures for both its office locations in Abu Dhabi and Barakah. In 2014, ENEC has recorded zero significant or reportable environmental incidents, zero breaches of environmental regulations or environmental permit conditions and there have also been no significant hydrocarbon or chemical spills.

ENEC continues to conduct environmental audits at both Barakah and the organization's corporate offices in Abu Dhabi to identify strategies in which to minimize its environmental footprint and enhance capacity for environmental stewardship. The organization has also developed a number of proactive environmental initiatives being implemented by ENEC to ensure the long-term sustainability of the natural areas surrounding the Barakah site.

3.3.1 Environmental Priorities

In coordination with KEPCO, ENEC has designed and implemented a construction process that balances water, energy and resource efficiency with the long-term sustainability of Barakah and the communities it will serve. The Barakah CEMP, which includes a comprehensive environmental monitoring program, is central to minimizing the environmental impact of the Barakah site. ENEC also works with EAD to regularly monitor the natural environments surrounding the plant, and proactively develop mitigation programs to offset any applicable marine, atmospheric and terrestrial impacts.

During the program's current construction phase, materials usage, waste creation and disposal, and dust are the most critical environmental aspects to be managed. The increased acceleration in construction activity at Barakah in 2014 has logically resulted in a planned rise in the consumption of resources, including construction materials, water and energy, and the creation of waste.

Extensive planning is already underway to ensure that ENEC is prepared for the environmental management requirements for plant operations, starting in 2017. An Operational Environmental Management Plan (OEMP) is currently under development in compliance with EAD-issued environmental permit requirements, federal regulations and international nuclear energy standards.

3.3.2 Materials Usage and Waste Hierarchy

Given the size and complexity of the Barakah project, a significant volume of materials are required for the construction of the plant, in order to meet the requirements of our regulators and ensure the highest standards of safety, quality and performance. Two of the most significant materials being used are concrete and steel, both necessary to create a facility that is safe and secure. In 2013 and 2014, ENEC has used more than 1 million cubic meters of concrete, enough to fill 450 Olympic sized swimming pools, and 73,769 tons of steel, almost enough steel to build two Burj Khalifas, throughout the construction program.

Materials Used	2013	2014
Concrete used in construction (cubic meters)	520,427	614,935
Steel used in construction (metric tons)	35,280	38,489

As expected with a project of this scale, a significant volume of waste material is generated as a result of the construction process. To address this, ENEC has implemented a waste management plan that focuses on waste separation, recycling and reuse of materials whenever possible, and the safe disposal of waste when it is not. Concrete, metal, wood, plastic, oil, cardboard and paper are all segregated at site for recycling. ENEC and KEPCO have implemented a waste segregation awareness campaign at site to promote environmentally-friendly waste practices and recycling among site-based employees and subcontractors.

All waste streams are tracked to ensure chain of custody, and volumes are monitored against planned targets. Although the amount of solid non-hazardous waste generated increased from 2013 to 2014, this was anticipated given the increased project construction during this time period. Vigorous implementation of waste management initiatives has resulted in the amount of solid waste recycled increasing from 10% in 2013 to 16% in 2014. During the same period, the amount of solid hazardous waste disposed of decreased by 76%; mainly due to waste being stored on site, there was also reduction in the amount of solid hazardous waste being recycled, decreasing from 40% in 2013 to 39% in 2014.

The amount of wastewater generated increased by 52% from 2013 to 2014, while the amount of hazardous liquid waste produced increased by 37%. During the same period, there was a decline in the percentage of wastewater recycled, from 100% to 76%; however 100% of hazardous liquid waste was recycled. Additionally, approximately 90% of sewage effluent is treated on-site and re-used for irrigation and dust suppression.

Waste Management Performance	2013	2014
Non-hazardous waste disposed (metric tons)	25,530	62,394
Non-hazardous waste recycled (metric tons)	2,916	11,585
Percentage of total non-hazardous waste recycled	10%	16%
Hazardous waste disposed (metric tons)	80	19
Hazardous waste recycled (metric tons)	54	12
Percentage of total hazardous waste recycled	40%	39%
Wastewater disposed (liters)	4,175,800	301,947,780
Wastewater recycled (liters)	814,766,000	940,044,000
Percentage of total wastewater recycled	100%	76%
Hazardous liquid waste disposed (liters)	0	0
Hazardous liquid waste recycled (liters)	17,820	24,380

3.3.3 Energy and Water Management

During the construction phase, direct energy is used in the form of fuel for the operation of heavy machinery and vehicles for construction activities and transportation around, to and from the site. Indirect energy is used in the form of electricity, and water is used primarily for the mixing of concrete.

ENEC has launched a number of education initiatives to increase energy and water awareness and reduce consumption, through behavioral change among staff and contractors at Barakah and Abu Dhabi offices. These initiatives include signage, educational talks and email messages outlining the importance of simple but impactful actions. By focusing on building awareness with employees, ENEC strives to integrate energy and water sustainability into everyday operations while improving operational efficiency.

Additionally, ENEC has planned ancillary infrastructure nearby Barakah in accordance with the Estidama sustainable building codes (where feasible) in order to integrate long-term sustainability into these structures. In 2014, ENEC also completed the installation of water efficient faucets on-site, implemented an innovative car washing facility that recycles more than 80 percent of the water it uses, and saw the application of recycling methods to reuse water from the project for uses such as irrigation. Collectively, these efforts have helped reduce Barakah's water consumption by up to almost 370,000 liters per day – the equivalent of more than 55 Olympic sized swimming pools over the course of a year.

In 2014, combined fuel use across operations increased 145%, while total electricity consumption increased by 56%. Total water consumption increased by 43%. The increases in energy and water consumption were the result of a significant ramp-up in construction activity, as well as the large expansion in number of personnel employed by ENEC, its contractors and subcontractors. Percentage increases were generally higher in Abu Dhabi than they were on-site due to a doubling of the ENEC workforce.

Energy Consumption	2013	2014
Fuel use on-site (liters)	470,800	1,108,872
Fuel use in Abu Dhabi (liters)	185,493	499,760
Total direct energy consumption (liters)	656,293	1,608,632
Electricity on-site (kWh)	62,244,570	96,353,207
Electricity in Abu Dhabi (kWh)	824,012	1,731,535
Total indirect energy consumption (kWh)	63,068,582	98,084,742

Water Consumption	2013	2014
Water consumed on-site (cubic meters)	1,232,305	1,752,640
Water consumed in Abu Dhabi (cubic meters)	Not available	8,271
Total water consumption (cubic meters)	1,232,305	1,760,911

3.3.4 Climate Change and Emissions

Studies show that nuclear energy is one of the most environmentally friendly forms of commercially-feasible baseload electricity production available today. Nuclear energy plants emit almost zero carbon emissions during operations. Consequently, nuclear energy will significantly contribute to the UAE's carbon reduction goals and to the achievement of Kyoto global warming treaty agreements, ratified by the UAE in 2005.

The bulk of emissions currently generated by ENEC's program are Scope 3 emissions, defined as indirect emissions arising from the activities of suppliers, materials purchased, or business travel. These indirect emissions made up 77% of ENEC's total emissions in 2014, mainly due to the purchasing of large amounts of concrete and steel for construction. The remaining 23% of emissions are primarily Scope 2 emissions generated through electricity consumption; while Scope 1 emissions, arising from direct fuel consumption for transportation in ENEC vehicles, made up only 1.5% of total emissions for this year.

Ninety-seven percent of Scope 1 and 2 emissions were attributable to energy consumption used by KEPCO during the construction of Barakah, with only 3% produced by the corporate office activities by ENEC in Abu Dhabi.

From 2013 to 2014, ENEC's total GHG emissions increased by 41%. Scope 1 emissions saw the largest increase, by 160%; Scope 2 emissions increased by 56% and Scope 3 emissions by 36%. The rate of increase of Scope 1 and 2 emissions were higher in Abu Dhabi than they were at the Barakah, reflecting the significant rise in employees in the corporate offices during 2014.

GHG Emissions*	2013	2014
Scope 1 – fuel use on-site (metric tons CO_2e)	1,069	2,738
Scope 1 – fuel use in Abu Dhabi (metric tons CO_2e)	421	1,135
Total scope 1 (metric tons CO_2e)	**1,490**	**3,873**
Scope 2 – electricity on-site (metric tons CO_2e)	36,656	56,742
Scope 2 – electricity in Abu Dhabi (metric tons CO_2e)	485	1,020
Total scope 2 (metric tons CO_2e)	**37,141**	**57,762**
Scope 3 – emissions from bus travel (metric tons CO_2e)	239	239
Scope 3 – emissions from concrete and steel (metric tons CO_2e)	147,389	181,234
Scope 3 – emissions from air travel (metric tons CO_2e)	Not available	9,777
Total scope 3 (metric tons CO_2e)	**147,389**	**201,027**
Total GHG emissions (metric tons CO_2e)	**186,259**	**262,662**

*All GHG emissions are presented in metric tons CO_2e and have been calculated using tools provided by the GHG Protocol a global standard for the measurement of GHG emissions and a partnership initiative between the World Resources Institute (WRI) and World Business Council on Sustainable Development (WBCSD).

In addition to GHG emissions monitoring, background air quality monitoring of NO_x, SO_x, PM10 (particulate matter up to 10 micrometers in size) and ozone is conducted daily by a third party. If air quality exceeds regulatory limits it must be recorded with the regulator, EAD.

In 2014, there were no incidents of NO_x or SO_x limits being exceeded at Barakah, however levels of PM10 and ozone were exceeded on a small number of occasions. This increase was primarily attributable to prevailing climatic conditions. There is currently no assessment of direct air emissions undertaken.

3.3.5 Biodiversity Impact

ENEC is committed to being a responsible custodian of its site and the surrounding local environment. In conjunction with the EAD, the organization actively monitors for any environmental impacts, and pursues proactive mitigation programs to ensure the long-term sustainability of Abu Dhabi's environment.

The location of Barakah was selected specifically to minimize the risk of impact to sensitive areas, such as wetlands, designated marine preservation areas and flora and fauna reserves. ENEC has also implemented a number of design modifications to its plant design in order to meet the regulations of the EAD and adapt to the UAE's climate conditions.

As with any new development, ENEC does expect some environmental impacts from the plant. ENEC's EIA estimated that site construction and operations will result in limited impact to coral and seaweed communities surrounding the site, primarily due to cooling water discharges to the Gulf during operations. The thermal plumes generated by these discharges are not anticipated to impact any marine protected areas.

In 2014, ENEC initiated implementation of two proactive environmental initiatives to ensure the long-term sustainability of the natural areas and biodiversity surrounding the Barakah site.

In partnership with the National Marine Dredging Company (NMDC), and in line with guidance from the EAD, ENEC recently completed the Barakah Artificial Reef Project. The project involved constructing a 6,700 square meter reef off the coast of Barakah from reused concrete molded core-locs, originally utilized in the assembly of Barakah NPP's coastal breakwater. The lattice formation of the reef is designed to replicate a natural coral reef, and works to stimulate the local ecosystem by improving the existing seabed habitat, providing additional shelter for marine life, and encouraging biodiversity. The enhanced habitat is expected to attract a range of marine species including algae, invertebrates such as barnacles, corals, and oysters, and a variety of small and large fish.

ENEC also installed two osprey nesting platforms in 2014 to increase the biodiversity on-site. The osprey is a nationally threatened bird. Further updates on these two initiatives will be included in the 2015 sustainability report.

3.4 Health and Wellbeing

Objective

Safeguard the health and wellbeing of all employees, contractors and the local community.

3.4.1 Health of Employees and Contactors

In order to ensure the overall health and wellbeing of all its employees, ENEC has initiated a Health Screening and Medical Surveillance program to manage each individual's occupational health while employed by the organization.

Each new joiner to ENEC completes a visit with a physician as well as a health history questionnaire in order to establish any current medical issues or risks. A full medical check-up is completed with certain prerequisite examinations, followed by a job-risk-specific medical investigation. The results and recommendations received from the physician are then processed. Each employee must periodically undergo this assessment based on the occupational risks associated with their job category.

An annual Health Action Plan is developed to guide ENEC's approach to employees' health and wellness, tracking progress to ensure key milestones were met and projects completed effectively. The organization uses the trending knowledge generated from health incident investigations to build targeted awareness programs into its plan.

ENEC delivered a number of initiatives in line with its 2014 plan, including:

- Food for Thought, where medical experts from hospitals address employees in an awareness session, accompanied with a healthy lunch. Topics included concerns such as cardio vascular disease (CVD), hypertension, vitamin D deficiency, work stress management and others.
- ENET newsletter articles, published to share information on numerous health issues, informing employees about techniques to manage their health and monitor their risk factors.
- Health events program, this program is part of a more comprehensive calendar that covers and tracks International and UAE Health, Safety and Environmental related days and events. The calendar is designed to inform our staff about these events for awareness and education purposes by means of newsletter articles, LCD screens and all staff invitations.
- First Aid courses, trained 81 first aiders at the ENEC HQ and 78 first aiders in Barakah. First Aiders are issued with an internationally recognized First Aiders registration.
- Office environment, testing air quality, noise, ambient lighting and the health benefits of indoor plants.

ENEC continues to monitor the health performance and programs of contractors and subcontractors. Regular assessments of accommodation, kitchens and medical facilities at site are conducted by ENEC to ensure contractor and subcontractor compliance with company and regulatory health requirements. ENEC also encourages contractors and subcontractors to provide comprehensive social support groups for sport, music and other personal interests for their employees.

ENEC's on-site medical facilities provide medical treatment up to the level of minor surgery (suturing etc), and the medical service provider has medical emergency arrangements with local hospitals for referring more serious cases directly. The services of the medical facilities provided are based on the findings of a medical services gap analysis.

As a result of the health programs put in place by ENEC and its contractors and subcontractors, zero occupational illness incidents have been recorded in 2014. There was however a minor increase in heat stress incidents for this year, which has resulted in the development and implementation of a comprehensive heat stress campaign for the future.

Occupational Health Performance	2013	2014
Reportable occupational illness (employees)	0	0
Reportable occupational illness (contractors and subcontractors)	0	0
Heat stress incidents (employees, contractors and subcontractors)	31	34

3.4.2 Workforce and Contractor Grievances

In line with the organization's commitment to open and transparent communications, workforce or contractor grievances can be sent directly to ENEC's Health, Safety and Environment (HSE) team, via a dedicated email address and emergency phone, contactable at all times. ENEC also has a comprehensive Condition Report (CR) system for escalating concerns within the organization, which are inspected by FANR on a regular basis and monitored by ENEC according to established procedures.

3.4.3 Radiological Safety

The nuclear energy industry takes the safety and security of those who work at or live near its facilities very seriously. Ensuring their safety, as well as the safety of the surrounding environment, is of the utmost importance. All nuclear energy plants, including ENEC's APR1400, are designed and built to confine and contain radiation, preventing any release of radiation to the public and environment.

Radiological safety at ENEC is divided into two main areas of focus: operational radiological safety and the protection of Barakah staff, construction workers and the public in the event of a radiological event.

With respect to operational radiological safety, the programs implemented by ENEC must meet strict Federal and international standards on the dose limitations to individuals and the release limits to the environment. This requires monitoring of both the local area as well as the plant. ENEC began environmental monitoring in 2014 to ensure that there are two years of baseline data before Unit 1 becomes operational. The implementation of these programs will receive appropriate approval from FANR, as well as international bodies such as WANO and the IAEA.

3.5 Quality, Efficiency and Reliability

Objective

Achieve operational excellence and the implementation of industry best practices.

3.5.1 Quality Assurance Program

The nuclear industry has some of the most stringent quality standards in the world, many of which are unique to the industry. ENEC has established a rigorous Quality Assurance (QA) program to ensure that the UAE's first nuclear energy plants are designed, constructed, commissioned and operated in line with the best industry practices, governing codes and standards, regulations and license requirements.

As part of a commitment to international best practices, operational efficiency, quality, and performance excellence, ENEC has achieved the following international accreditations:

International Accreditation	
ISO 9001 Quality Management System Standard	PAS 99: Integrated Management System
ISO 14001 Environmental Management Standard	ISO 20000 IT Delivery and Support
ISO 27001 Information Security Management System	Investors in People: People Management Standard
OHSAS 18001 International Occupational Health and Safety Management System	ISO 22301: Business Continuity Management
Standard of Excellence in Strategic Procurement Capability "Gold Certification" from the Chartered Institute of Purchasing and Supply (CIPS)	

ENEC's QA program is applied to all aspects of the organization. Training sessions, assessments, and audits are conducted on a regular basis to ensure that the program's high standards are being met and continually improved upon. In 2014, ENEC conducted 47 audits (largely performance based) on all aspects of ENEC QA programs. This included 12 internal and 35 external audits. To date, more than 31,000 work-hours have been dedicated to performing rigorous quality audits on all aspects of the program. In 2015, ENEC has planned for 43 QA program audits and eight management system audits.

3.5.2 Barakah Excellence Award

In 2014, ENEC launched an internal excellence award program, the Barakah Excellence Award, which was held as a first cycle in 2014. The awards are designed to alternate with the existing Abu Dhabi Awards for Excellence in Government Performance (ADEAP).

These awards aim to spread a culture of excellence internally, while motivating departments, project teams, and individuals to continuously strive for the highest standards in everything they do by following the EFQM Excellence Model. The objectives of the program include emphasizing ENEC's commitment to excellence best practices, building internal capabilities in the field of business excellence, and creating a healthy competitive spirit among ENEC departments.

Barakah
Excellence Award

4 Industrial and Economic Development

4.0 Industrial and Economic Development

ENEC is supporting the nation's economic growth and diversification by building a local nuclear energy industry that can contribute to national, regional and international nuclear supply chains.

Material Aspects:

1. Financial Responsibility
2. Abu Dhabi Development
3. Supply Chain Management

4.1 Industrial and Economic Development

The UAE's investment in the development of nuclear energy is enabling sustained business and economic growth for the nation. A critical factor in the country's decision to pursue a peaceful nuclear energy program was the opportunity to develop a new industrial sector to support continued economic prosperity, generate new opportunities for local companies, and drive greater industrial diversification across the nation.

The impact this high-value new industry will have can already be seen today. With ENEC's support, more than a thousand of local companies are involved delivering the country's first nuclear energy plants, making a lasting positive contribution to the local economy and stimulating the growth of industry across the UAE.

Looking ahead to the start of commercial operations in 2017, the UAE peaceful nuclear program will also make a significant contribution towards the country's economic development by providing the critical energy to power the continued growth of industries and business.

4.2 Financial Responsibility

Objective

Deliver cost-effective power through a combination of financial responsibility and effective operational execution.

The UAE peaceful nuclear energy program represents a strategic investment by the Government of Abu Dhabi in the future growth and development of the nation. In line with the guiding principles set out in the UAE policy for the development of nuclear energy, ENEC strives to conduct its business in an accountable and efficient manner to ensure the program makes optimal use of government resources.

ENEC continuously works to improve its capabilities, processes, and systems to ensure cost-effectiveness across the organization, while not compromising its standards of safety, security and performance. The organization is committed to the responsible management of its funds and rigorously manages its work in line with international best practices.

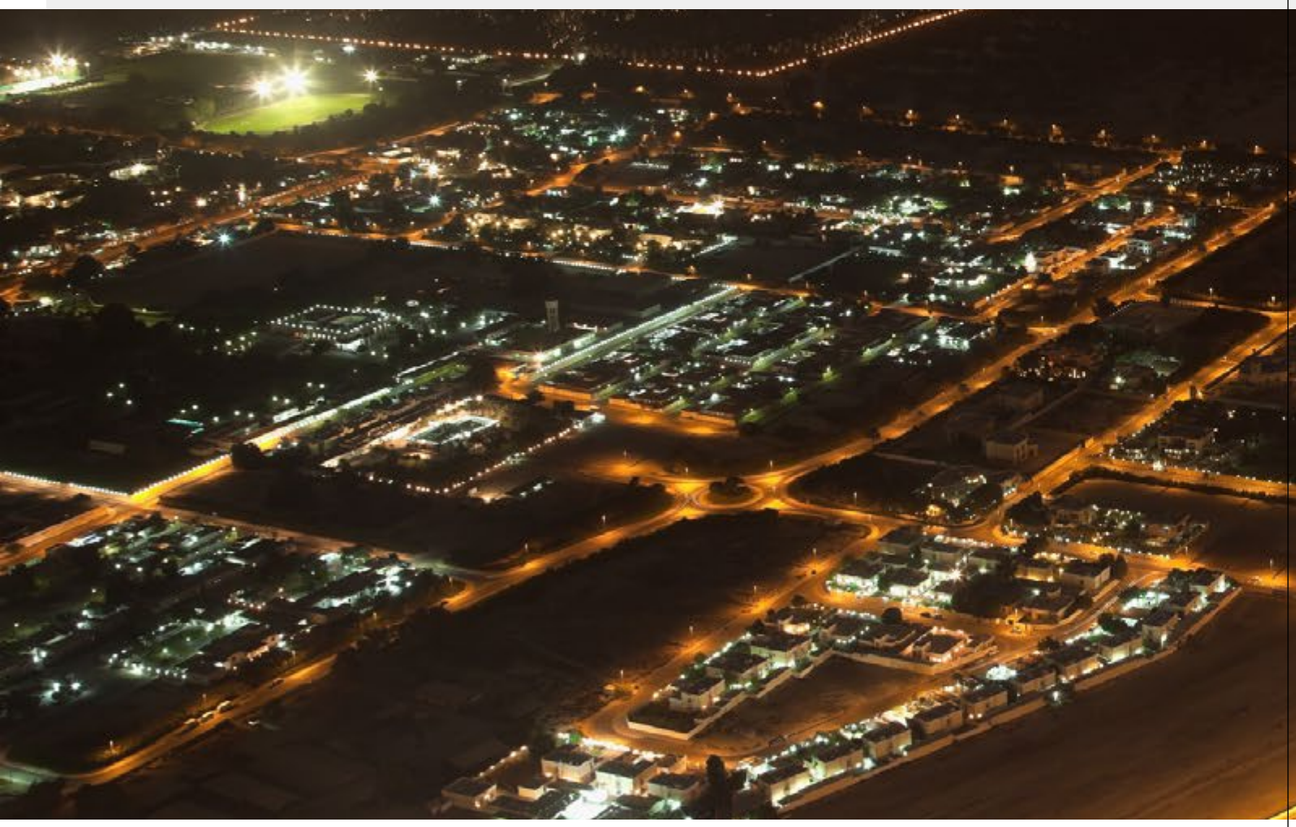
Until operations commence in Unit 1, ENEC does not have revenues to report on. Current construction activity is funded by the Government of Abu Dhabi. As such, a range of financial audits, including statutory and internal audits, are conducted annually at ENEC with thorough review by the government auditor ADAA to ensure compliance. Regular reports are also provided to the General Secretariat of the Executive Council (GSEC) and Department of Finance (DOF) to ensure all aspects of ENEC's business meet the highest standards of financial responsibility.

Through its work with local companies, ENEC is not only supporting existing UAE businesses but also contributing to the development of the local economy while stimulating the growth of industry here in the UAE. International studies show that every dirham spent by an average nuclear energy plant results in the creation of 1.04 dirham in the local community and about 1.87 dirham in the nation's economy (Nuclear Energy Institute; http://www.nei.org/Why-Nuclear-Energy/Economic-Growth-Job-Creation).

4.3 Local Industrial Development

Objective

Become a driving force behind the Emirate investment plan, providing business development opportunities and contributing to the emirate's GDP.



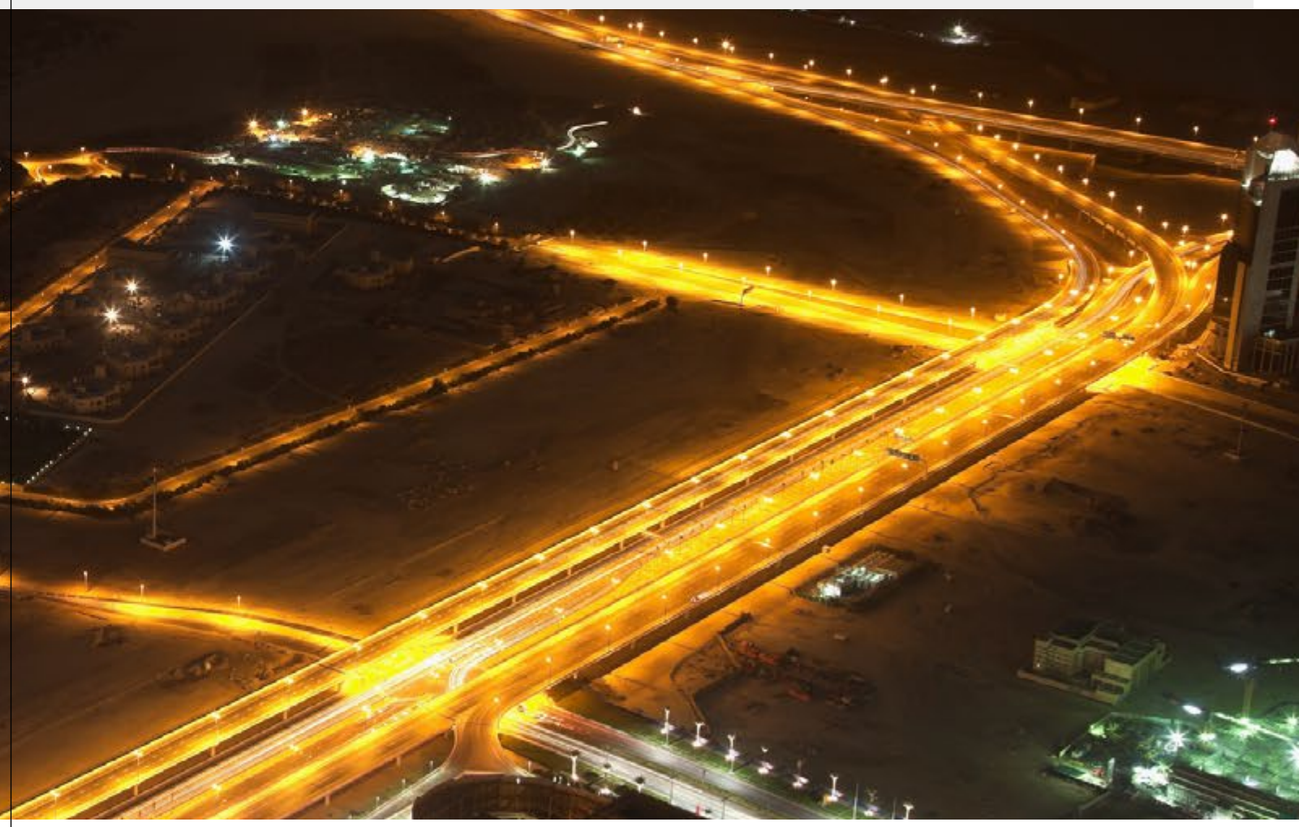
4.3.1 Direct and Indirect Economic Contribution

ENEC has a direct contribution on the economy through the creation of jobs and direct spending on suppliers and contractors. At present ENEC directly employs over 1,300 people, and in the last year alone has created over 400 new highly skilled jobs. A large proportion of the wages and benefits provided to these employees is channeled directly into Abu Dhabi's local economy, and that of the wider UAE, creating indirect economic impact in the form of jobs and demand for other sectors of the economy such as housing, transport, manufacturing, food and recreation.

When all four nuclear energy units are operational in 2020, ENEC is expecting to directly employ 2,500 people. This number of personnel required for operation of the Barakah nuclear energy plants and associated support services will create demand for local infrastructure and services that will benefit Abu Dhabi and the Western Region.

According to the Al Gharbia Investment Roadmap, which was established by the Western Region Development Council, the emerging nuclear energy sector could contribute an estimated AED 62 billion in capital to the Western Region over the long-term.

ENEC's efforts to localize its supply chain are discussed further in the 'supply chain management' section 4.4.



4.3.2 Community Development and CSR

ENEC continued to develop its Corporate Social Responsibility (CSR) program in 2014, forming a CSR High Impact Team (HIT) to manage initiatives and develop a CSR framework for the identification and implementation of proactive, high impact and strategic CSR projects. Some of the key CSR initiatives run in 2014 include:

- During Ramadan, ENEC hosted sixty orphaned children for Iftar, entertainment, and gift giving.
- Running Activity and Entertainment Days at the New England Autism Center in Abu Dhabi and the Sheikh Khalifa Medical City.
- Sponsorship of the Al Dhafra Sports and Cultural Club 2014-2015.
- Running 'Power It Up!' Workshops at Abu Dhabi Science Festival 2014.

'Power It Up!' Workshops at Abu Dhabi Science Festival 2014

ABU DHABI SCIENCE FESTIVAL

www.abudhabisciencefestival.ae

In November 2014, ENEC engaged and inspired thousands of local school children and members of the public with its series of interactive 'Power It Up!' workshops hosted at the Abu Dhabi Science Festival 2014 (ADSF), demonstrating the interesting and exciting science and technology behind nuclear energy.

As a leading sponsor of ADSF 2014, ENEC organized a series of 45-minute interactive workshops at the Science Village of the festival on the Corniche in Abu Dhabi. The workshops explained to children and visitors how electricity is produced through a kinetic motion model that participants could try out themselves. In addition, a specially installed demonstration model using ping pong balls showed how an atomic chain reaction happens as it would in a nuclear reactor.

More than 2,000 young participants visited and attended the workshop over the course of the festival, gaining knowledge on the various stages of generating electricity in a nuclear energy plant. Children aged nine years and above also had the opportunity to use an interactive display and scientific equipment to develop their understanding of how nuclear fission creates large amounts of energy.

ENEC also organized two additional workshops at ADSF's Al Ain and Sharjah locations with the aim of engaging children and generating interest and excitement about science and engineering across the UAE.

Other education based CSR initiatives held by ENEC include, an Elec-tricks! workshop at Al Ain Zoo, explaining to children the concept of electromagnetic fields, while the Gadget Factory in Sharjah gave participants a hands-on experience building and soldering circuit boards to show how connectivity works.

4.4 Supply Chain Management

Objective

Develop a supply chain that is increasingly locally-based and that meets the environmental, social and quality standards of the nuclear industry.

The supply chain required to construct and operate a nuclear power plant is large and international. As the Prime Contractor, KEPCO is responsible for all procurement related to building the Barakah site. ENEC is responsible for all 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 that ENEC's goods and services are procured to the best contractual terms and conditions and in full compliance with the legal requirements safe-guarding ENEC's interests.

As part of ENEC's commitment to quality and performance excellence, ENEC has achieved international accreditation according to the Standard of Excellence in Strategic Procurement Capability from the Chartered Institute of Purchasing and Supply (CIPS).

4.4.1 Localization and Security of the Supply Chain

ENEC is committed to procuring its goods and services from suppliers based in the UAE where possible. Not only does local procurement support the economic growth of the UAE, it brings greater security to the supply chain as well as reduced delivery times and impact on the environment associated with transportation.

In 2014, ENEC awarded US$ 232 million, 87% of its procurement spending to locally based suppliers, 134% more than it did in 2012. The dramatic increase in total procurement spending for 2013, and the dip in spending with UAE suppliers, is due to the special nature of ENEC requirements during the construction project phase, and the necessity to procure major components of the project from outside of the UAE.

The organization also has almost 1,500 registered suppliers based in the UAE, comprising 82% of the total number of registered suppliers. ENEC also encourages locally owned SMEs to join the supply chain, and to date 11 companies funded by Khalifa Fund for Enterprise Development are registered.

Localization of the Supply Chain	2012	2013	2014
Total procurement spending (USD millions)	127	2,258	267
Total procurement spending on suppliers based in the UAE (USD millions)	99	47	232
Percentage of procurement spending on locally based suppliers	78%	2%	87%
Number of registered suppliers (Cumulative)	199	1,384	1,827
Number of registered suppliers based in the UAE (Cumulative)	157	1,164	1,497
Percentage of registered suppliers who are locally based	79%	84%	82%
Number of Khalifa Fund suppliers* registered (Cumulative)	2	8	11

* Locally owned SME companies funded by the Khalifa Fund for Enterprise Development

Companies that aspire to supply materials for the construction of a nuclear energy plant must demonstrate the application of nuclear-grade quality assurance standards, depending on the classification of the material. Given that this is a new industry in the UAE and region as a whole, there were no local nuclear grade suppliers. To address this issue ENEC has established an Industrial Development Team dedicated to work with potential local suppliers to implement the necessary standards in order to compete to become a supplier of the UAE's peaceful nuclear energy program and beyond.

Since the beginning of the project until the end of 2014, the project had awarded US$ 2.16 billion in contracts to over 1,200 suppliers based in the UAE.

First Ducab Shipment Arrives at Barakah

Earlier this year, the first consignment of UAE-produced Non-Class 1E cable was delivered to Barakah. The cables were manufactured and supplied by the Dubai Cable Company Ltd. (Ducab) and are being used for Non-Class 1E power and lighting in the four units at Barakah. The first shipment of 324,000 feet of Non-Class 1E cables out of the total 16 million feet on order will be used during the construction of Unit 1.

The cables have successfully passed a 60-year operating life qualification test. ENEC's Equipment Qualification (EQ) team witnessed the final part of the eight-month long-term test to confirm that the different cable types meet ENEC's stringent operational and safety requirements.

"With its world-class nuclear energy project, ENEC has played a pivotal role in the UAE's industrial development program," said Hassan Omar, General Manager - Technical & Quality, Ducab. "Our dedicated team has been working diligently since 2011 to develop this range of premium and extended long-life cables made to American and NQA Standards. We are extremely grateful to ENEC for granting Ducab the opportunity to prove and elevate our capabilities."

4.4.2 Supplier Environmental, Social and Human Rights Impacts

In line with the nuclear industry's graded approach to quality and HSE responsibility, ENEC has a comprehensive procurement requisition checklist outlining ENEC's quality and HSE requirements to ensure suppliers' compliance throughout the procurement process. ENEC conducts risk-driven pre-qualification exercises to ensure that potential suppliers meet the specified standards for quality and safety. An HSE contractor management procedure aims to confirm supplier compliance with all relevant HSE requirements. ENEC's HSE management system is also available for suppliers to review to ensure their compliance.

At the time of registering their interest to do business with ENEC, all suppliers must agree to the 'Supplier Code of Conduct'. This document was extensively revised in 2014 to align with ENEC's anti-fraud and misconduct program, and to include sections that address HSE and labor issues. Suppliers may raise concerns through a dedicated email address, or through the anti-fraud and misconduct reporting program.

Looking ahead to 2015, ENEC will begin to ensure that suppliers and contractors have a verified commitment to comply with labor practices before they are registered as suppliers or awarded a contract with ENEC. ENEC will also initiate regular meetings with key suppliers to solicit feedback and discuss performance concerns.

5 Knowledge and Employment

5.0 Knowledge and Employment

The UAE peaceful nuclear energy program will deliver thousands of high-value jobs for our citizens, whilst also bringing new knowledge and expertise to the country. The ENEC Program represents an opportunity for talented and highly-skilled Emiratis to become leaders in a rapidly growing and international sector

Material Aspects:

1. Highly Skilled Employment
2. Knowledge Creation
3. National Talent Development

5.1 Knowledge and Employment

To deliver a project of this size and complexity, ENEC requires a large and diverse workforce. By 2020, it is estimated that the organization will require a team of approximately 2,500 people to ensure the safe and efficient operation of the Barakah plants. Therefore, developing the next generation of nuclear energy leaders is one of ENEC's most important priorities.

From the outset, ENEC has worked to attract and train the country's most talented students, graduates and experienced professionals to build a highly-skilled nuclear workforce; and provides world-class scholarships, training and education to support Emirati talent.

ENEC follows the leadership of the UAE Government and works alongside industry and academia to create and implement a training and development infrastructure that will support the full spectrum of nuclear energy career paths, from technical and vocational jobs to those requiring specialized bachelor's and master's degrees. This multi-faceted approach to capacity building will ensure a pipeline of talent for the UAE's nuclear energy industry for decades to come.

5.2 Highly Skilled Employment

Objective

Generate jobs, recruit and retain high quality people within ENEC and the nuclear energy sector.

In parallel to its large-scale construction program, ENEC is focused on developing a highly skilled workforce to meet the needs of the UAE's growing nuclear industry.

The organization recognizes that people are its greatest asset. Therefore, as the business works towards the start of commercial operations in 2017, ENEC is actively recruiting, training and developing the group of talented men and women who will ensure the safe and successful operations of its plants.

The organization's comprehensive Energy Pioneers human capital development program ensures that ENEC attracts the best and brightest and that the organization continues to invest in its people throughout their careers with world-class training and development opportunities.

5.2.1 The ENEC Team

The ENEC team is made up of more than 1,300 professionals of all ages, with the majority coming from the Middle East and North Africa (MENA) region. The total workforce has increased by over 250% in the past three years, growing by almost 1,000 employees from 2011 to 2014. To accommodate this intense scaling up of manpower over the past few years, ENEC has worked hard to ensure its hiring and on-boarding process is efficient and effective. In 2014, it took an average of 59 days to complete the recruitment process and fill an open position, a figure that continues to reduce.

Composition of ENEC Employees

Employment	2011	2012	2013	2014
Total employees	386	554	902	1,372
by Age				
18-30	148	246	442	582
31-50	208	270	372	574
51+	30	38	88	216
by Region				
MENA	248	384	638	890
Africa	6	10	10	17
Americas	35	42	84	199
Europe	39	37	53	94
Asia	58	81	117	172

Composition of ENEC New Employee Hires

New Employee Hires	2012	2013	2014
Total new employee hires	214	404	533
by Gender			
Female	46	69	94
Male	168	335	439
by Age			
18-30	133	241	208
31-50	71	108	197
51+	10	55	128
by Region			
UAE national	159	124	282
Expatriate	55	280	251

In order to ensure it has the people it needs to fulfill its mission and vision, ENEC has put in place a compensation and benefits package that helps it to attract and retain the high quality personnel it requires. ENEC will continue to benchmark and review its position within the market to ensure it remains competitive. Employees have access to the following benefits:

Employee Benefits	
Education assistance	Relocation expenses
Housing entitlement advance	End of service benefits (for expatriates only)
Life insurance	Health insurance
Car loans	Repatriation (for expatriates only)

5.2.2 Employee Satisfaction and Attrition

ENEC recognizes that an engaged workforce translates to lower absenteeism, a healthier, happier workforce, and, ultimately, higher productivity. It also reduces turnover, allowing the organization to retain the employees it has invested in and benefit from their knowledge and experience over the long term.

Internal communications tools, such as newsletters, intranet, events and management meetings, are used to help employees connect more effectively with each other and the organization. To gauge how well employee needs are being met, ENEC conducts an anonymous employee satisfaction survey (called 'Barometer') every year, managed by an external and independent market research supplier. Upon completion of the survey, departments are encouraged to engage their employees on the results. ENEC also develops a corrective action plan to address areas for improvement identified from the survey.

ENEC has several programs in place to recognize and reward employees when they demonstrate exceptional performance. These include department level employee of the month, spot bonuses, professional certificates and recognition for academic and workplace performance.

ENEC's efforts to engage its employees have resulted in a significant reduction in employee turnover over the past two years. Since 2012, turnover has decreased 4.4 % from 11.7% in 2012 to 7.3% in 2014.

ENEC Life+

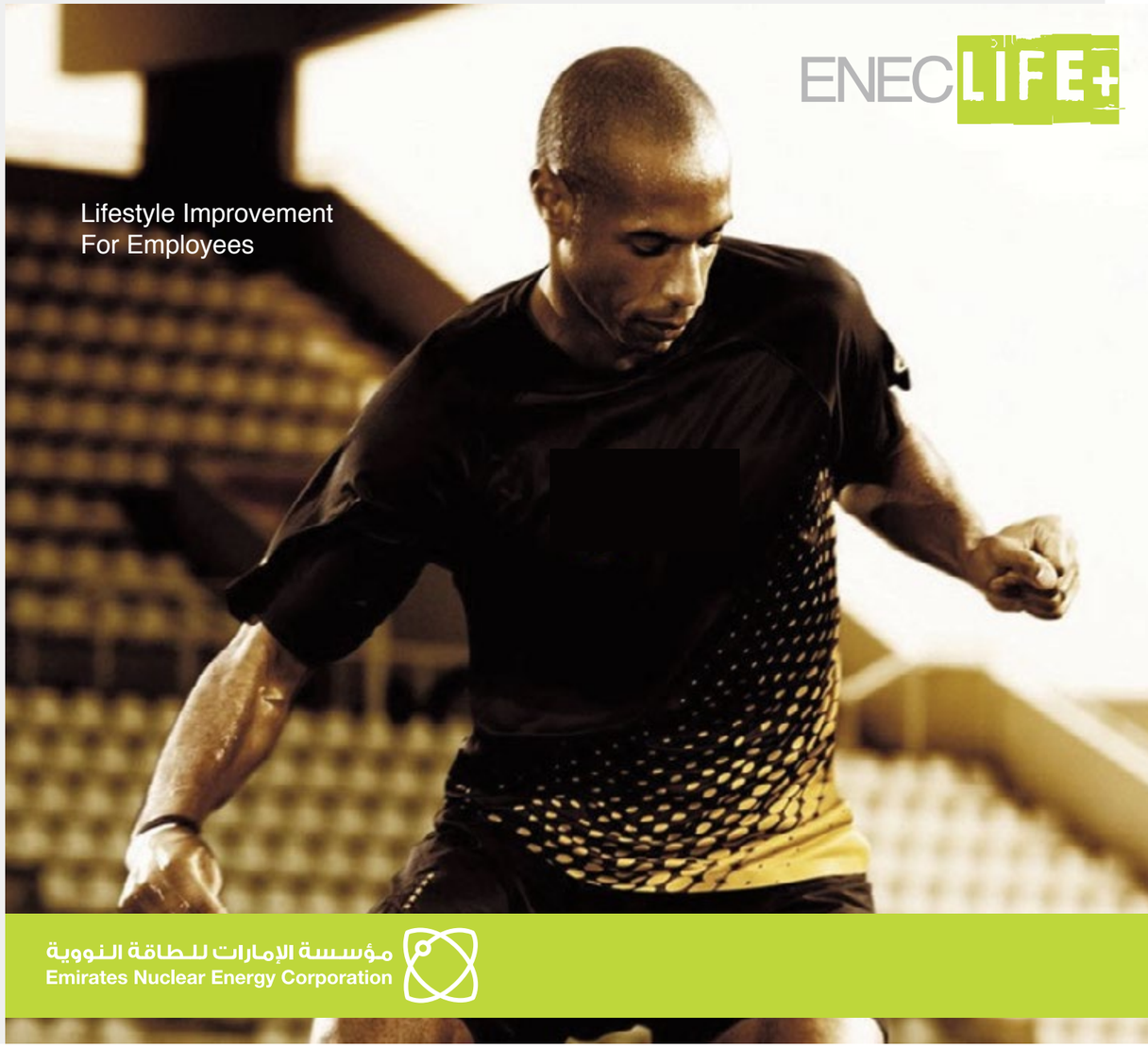
In 2011, ENEC launched the ENEC Life+ program to promote employees' individual development during out-of-office hours. The program includes a card that provides employees and their families with discounts and promotions. The objectives of this program are threefold:

- Create a closer community within ENEC that includes off-hour activities in which employees wish to engage.
- Foster team building, cross functionality and transparency between all employees.
- Encourage a healthy work-life balance as part of the ENEC culture.

Employees are also eligible to apply for sponsorship of after-work activities. Applications for sponsorship are reviewed for how an activity fits with ENEC's values. No initiative can be based on religion or politics, or exclude anyone on the basis of gender, age or nationality. Some of the activities supported in 2014 include, a range of sports clubs (squash, basketball, badminton, football), an internal fitness competition called Fit for Life, as well as fishing and diving clubs.

ENEC LIFE+
Lifestyle Improvement
For Employees

Employee Turnover	2012	2013	2014
Total employee turnover rate	11.70%	8.90%	7.30%



5.2.3 Female Representation

In order to drive its program forward and maintain the highest international standards, ENEC recognizes that it requires a diverse group of the best and brightest minds available. Talented females make up an important part of ENEC's growing workforce, and the organization is taking steps to encourage even more women to join the UAE's bourgeoning nuclear industry. Acting as a role model, Amani Al Hosani has become the first Emirati women nuclear engineer, and was honored by His Highness Sheikh Mohammad Bin Rashid Al Maktoum, Vice-President and Prime Minister of the UAE and Ruler of Dubai, to mark the 43rd anniversary of the UAE's National Day.

Today, ENEC is proud that 21% of its highly skilled professionals are female, more than the global average of just over 20% for females in nuclear professions worldwide. While the overall percentage has reduced since 2011, the rate of decline slowed between 2013 and 2014, as more opportunities for development, support and growth continue to be provided at ENEC. The organization is committed to continuing to improve on these figures in the coming years.


Amani Al Hosani

Female Representation	2011	2012	2013	2014
Number of female employees	141	165	220	291
Female employment rate	37%	30%	24%	21%
Turnover of female employees	-	16.30%	8.30%	9.80%

ENEC has made a particular effort to encourage more women into its workforce and to provide support, encouragement, and mentorship to its female employees. This is achieved through the UAE's first Women in Nuclear (WiN) chapter at ENEC, launched in 2014.

ENEC Women in Nuclear WiN

WiN (Women in Nuclear)

ENEC WiN is an affiliate of the Women in Nuclear Global (WiN Global) organization, and its vision is to support, encourage, and mentor women in the UAE to realize their full potential in various fields of nuclear science, engineering, and technology. Its objectives include the following:

- Collecting, evaluating, and addressing female employee needs to ensure the Barakah is a female choice of employment.
- Supporting global and UAE WiN chapters.
- Providing communication channels between the WiN Committee and other technical and professional organizations.
- Offering support to WiN members who are striving for professional excellence.
- Working with education centers and community organizations to promote careers in engineering and nuclear technologies for females, especially UAE nationals.

WiN UAE has five sub-committees, which include:

1. **WiN General and Infrastructure Subcommittee**
Ensuring an adequate and secure environment, both living and working, is being provided for women at Barakah.

2. **WiN Communication Subcommittee**
Driving and managing the branding, promotion and communication of the ENEC WiN Committee projects, initiatives, and events.

3. **WiN Professional Development Subcommittee**
Assisting in the development and mentoring of all Women in ENEC and ENEC subsidiaries.

4. **WiN E-Life Subcommittee**
Acting as the liaison between the WiN organization and ENEC Life+, working to support the work-life-home balance of WiN members.

5. **WiN UAE Interface Subcommittee**
Raising awareness and promoting WiN in the UAE.

Looking to the future, women make up more than 29% of students in ENEC's Energy Pioneer educational programs, marking a strong pipeline of highly-skilled females who will join ENEC following their training. Female turnover rates have also declined over the past two years, decreasing 6.5% from 2012 to 2014, however still remain higher than the total and male turnover rates. ENEC recognizes this is an area for improvement, and expects the ENEC WiN program to aid in closing this gap.

5.3 Knowledge Creation and National Talent Development

Objective

Development of Emirati talent in order to join ENEC and the nuclear energy sector. Contribute to the development of a knowledge-based economy through benefiting from international experience and the provision of world-class training and education programs.

ENEC's flagship program for knowledge creation and national talent development is its Energy Pioneers human capacity development program. The Energy Pioneers program is designed to attract, train and develop the country's most talented Emiratis to become the next generation of nuclear professionals in the UAE. This program is crucial for ENEC to meet its manpower requirements and satisfy its goal for 60% Emiratization rate.

In addition to the development of Emirati talent, ENEC also invests in training programs and career development for all members of its workforce, and supports research and development initiatives that contribute to knowledge creation in the industry beyond the UAE.

5.3.1 Energy Pioneers

ENEC's Energy Pioneers program is designed to attract and train the most talented science students and experienced professionals to become pioneers of the UAE's emerging peaceful nuclear energy program. The initiative is critical to building a national skill base to staff the Barakah NPP, which will help power the future development of the nation.

Under the Energy Pioneers program, ENEC offers scholarship opportunities, specialist training, ongoing professional development and career opportunities to the most talented undergraduates, graduates and experienced professionals. The first batch of 46 students completed their degrees and graduated in 2014.

5.3.1.1 UAE Nuclear Energy Scholarships

ENEC offers a number of fully funded scholarship programs for high achieving science students interested in pursuing a career in the nuclear energy industry. These scholars will become the next generation of industry leaders and are instrumental in the delivery of the UAE's nuclear energy program. They will get the industry's best training by the world's leading industry experts.

Nuclear energy engineering is not the only option, with scholarships being offered in a range of fields including bachelor's degrees in chemical, nuclear, electrical or mechanical engineering, or a master's degree in nuclear engineering.

Bachelor's degrees can be completed at leading institutions in the United States, while the Master's degree is offered locally at the Khalifa University of Science, Technology and Research (KU). KU also offers a Bachelor's degree in mechanical engineering. Scholarship recipients receive full coverage of tuition, a monthly stipend, and a performance-based annual bonus, as well as medical insurance, and a book allowance.

5.3.1.2 Higher Diploma in Nuclear Technology

UAE nationals can also apply for the Higher Diploma in Nuclear Technology program at Abu Dhabi Polytechnic, developed in collaboration with ENEC. This program provides students with specialist technical training and expertise to help operate the UAE's future nuclear fleet. The program balances practical hands-on training and classroom theory, and prepares Emirati high school graduates for a range of careers in the nuclear energy sector.

In the second year of the course, students travel to South Korea to apply the lessons learned and get hands on experience with an internship operating nuclear energy facilities. In the third year, students specialize in their preferred job stream, ranging from Nuclear Local Operator, Instrumentation and Control Technologist, Mechanical Technologist, Chemistry Technologist, Electrical Technologist or Radiation Protection Technologist. At the end of the program, students graduate with a diploma, as well as a Job Qualification Certificate (JQC).

In 2014, ENEC and Abu Dhabi Polytechnic signed a Memorandum of Understanding (MoU) to continue to work together to develop UAE national capability in nuclear energy. A new program, for an Applied Bachelor's in Information Security Engineering Technology (ABISET), has been launched through this partnership, with the goal of enabling students to become IT professionals guiding ENEC on cyber security and secure information and communication systems. ENEC will also provide students from the program with specialist on-the-job training at its facilities in Barakah.

ENEC hosts annual scholars gatherings where students in the Energy Pioneers Program have an opportunity to meet and to share experiences and gain insight on the latest updates to the UAE's nuclear energy program. At this event, special recognition is given to students who have demonstrated exceptional academic performance over the previous year.

Student Sponsorship	2013	2014
Total (student sponsorship)	276	342
Higher diploma	114	177
Bachelor	152	157
Master	9	7
PhD	1	1

5.3.1.3 Training Programs for Local Operators, Reactor Operators, and Senior Reactor Operators

ENEC also sponsors and supports several groups of Local Operators, Reactor Operators and Senior Reactor Operators at various stages of training as part of its Energy Pioneers program.

Local Operators are trained to be the 'eyes and ears' of a nuclear energy facility. They play an integral role in safe operations, and are assigned throughout the plant to provide constant monitoring and operation of plant equipment, reporting back to the Reactor Operators and Senior Reactor Operators in the plant's Main Control Room. The Senior Reactor Operators direct and supervise a nuclear reactor's safe operations, maintenance, and testing.

Training for these positions includes classroom education in nuclear plant systems and fundamentals delivered in Abu Dhabi, advanced simulator training at ENEC's new state-of-the-art Simulator Training Center at Barakah, and hands-on operating plant training at KEPCO's nuclear energy plants in South Korea.

Local Operators must also complete a six month hands-on plant commissioning assignment at the Barakah NPP site for the final stage of their program, to provide valuable plant experience prior to the start-up of Unit 1 in 2017. In line with ENEC's commitment to continued learning and improvement, Local Operators will also receive periodic requalification training.

Senior Reactor Operators must complete 800 hours of advanced simulator training and 2,000 hours of hands-on operating plant training to receive the Senior Reactor Operator (SRO) certification, which is controlled and issued by the Federal Authority for Nuclear Regulation (FANR) in the UAE. This group also receives management and leadership training. In 2014, a total of 16,173 days of training was provided to future operators by KEPCO.

Operator Program Training Days	2013	2014
Total days of training provided to future operators as part of ENEC's Energy Pioneers program	14,660	16,173

5.3.2 Secondary School Opportunities

ENEC is committed to encouraging young students across the UAE to pursue their interests in science and engineering. ENEC's training programs provides science students with real experience of the nuclear energy industry, including a two-week Summer Training Program for high-performing Grade 11 science students from the Institute of Applied Technology. During this program, students travel to South Korea to learn about the nuclear industry, tour state-of-the-art nuclear energy facilities and visit cultural centers.

5.3.3 Emiratization

Through its support for nuclear education, training and development, ENEC is building the national skill base for Emiratis to successfully enter the nuclear workforce and play a critical role in the development of the UAE – contributing to an industry that will ultimately deliver up to a quarter of the nation's energy needs.

The organization is committed to its goal for 60% of its workforce to be composed of UAE nationals, and it has successfully surpassed this goal for three years in a row. The Emiratization of senior management has also been climbing steadily since 2012, more than doubling in two years to reach 43% in 2014.

ENEC Emiratization	2011	2012	2013	2014
Number of Emiratis	224	361	610	857
Emiratization rate	58%	65%	68%	62%
Senior management Emiratization rate	25%	18%	33%	43%
Turnover of Emirati employees	Not available	16.3%	15.7%	11.4%

Interview with **Jaafar Al Hashmi**; Assistant Director of Nuclear Fuel Procurement

When did you join ENEC?

July 2009

What was it that attracted you to join the nuclear sector?

I wanted to be one of the pioneers in this new industry in the UAE. Also, at that time, I just graduated with a bachelor in nuclear and mechanical engineering, and hence working at ENEC was the best fit for me.

What experience did you have before joining?

Working at ENEC was my first job after graduation. However during college, I interned at Borouge and Schlumberger.

What has your ENEC journey involved to date?

It has been a great journey and learning opportunity. Joining ENEC at such an early stage allowed me to meet and work with many teams across the whole organization. I was first assigned to be part of the infrastructure department that prepared the preferred site for our plant and coordinated with the various stakeholders in Abu Dhabi. I then worked briefly with both the Licensing and Engineering departments. After that, I settled within the Nuclear Fuel department. Here, I was initially involved with the long-term procurement process for nuclear fuel. I was also involved in various other initiatives, such as coordinating the training program for the Fuel Cycle Management (FCM) engineers at KNF (Korea Nuclear Fuel). I also had the privilege of working with the Nuclear Safety Review Board, and learn from the vast experience of its members who are made up of government officials and senior professionals from the nuclear industry from the US, Japan and Korea.

What knowledge have you gained or skills have you developed during yourtime at ENEC?

At ENEC, I've learned to work in diverse multidisciplinary teams within FCM and across the whole organization. I've also learned to be a better communicator especially through my early involvement in the ENEC Public Forum events. On the technical side, I've learned a lot about the applied side of nuclear energy, including construction and operation of nuclear power plants and nuclear fuel, which were beyond what I learned from my bachelor's degree.

How important is the ENEC project to Abu Dhabi, the UAE and the region?

I think it's very important as a way to diversify our sources of energy away from being heavily dependent on oil and gas to a mixed basket of oil and gas, as well as nuclear and renewable energy. By being the first peaceful nuclear program in the region, ENEC and the UAE are also setting the gold standard for nuclear programs in the region and around the world.

What message would you give to other Emiratis considering a future in nuclear?

ENEC is one of the largest, most exciting and challenging projects to be part of here in the UAE. And being such a strategic project has made ENEC committed to developing Emiratis and building the necessary skills they need. As a result, it offers great growth and development opportunities for Emiratis regardless of their background and experiences.

5.3.4 Employee Training and Development

In line with industry best practices, ENEC is committed to continuous improvement across all aspects of its program and this is reflected in the organization's approach to training and development. ENEC continually builds the knowledge and expertise of its employees by assessing areas for improvement through performance reviews, and then recommending relevant and targeted employee training and development.

ENEC uses its employee competency framework, Tatweer, developed in 2014, as a foundation for training, performance management, and career development. Employees have access to training in a number of forms based on their needs, from online courses to internally-organized training to external training programs.

In 2014, ENEC delivered a total of 24,748 hours of training to its employees. While total training hours have decreased over the past two years, this is due to a more streamlined and targeted training approach. In 2012, ENEC organized several internal trainings for large groups through external vendors. However, in more recent years, the organization has sent a smaller number of more targeted employees with specific needs to external training courses, in order to optimize costs and maximize the benefits of in-house training.

Training Hours	2012	2013	2014
Total number of training hours delivered	38,310	25,766	24,748

5.3.4.1 Simulator Training Center

In 2014, ENEC celebrated the inauguration of its Simulator Training Center (STC) in Barakah. The STC is home to two simulators which are identical to the plant's Main Control Room, each consisting of a Large Display Panel which highlights the most important parameters for operators' quick reference, and five operator stations from which reactor operators can consult any system within the plant.

The simulator replicates the actual conditions and environment that the reactor operators would experience in a real time situation. It also provides students with the opportunity to experience accident situations that they would normally not be exposed to in day to day operations.

The new simulators, which are among the world's most advanced nuclear training devices and the first of their kind in the region, will complement ENEC's comprehensive training program and help ENEC to prepare its scholarship students to attain Reactor Operator (RO) and Senior Reactor Operator (SRO) certifications. They will also provide continuous training for ENEC's working SROs.

These simulators represent only the first stage in the development of a dedicated Simulator Training Center at Barakah, which will be a comprehensive training center utilizing ultramodern technology and equipment which will be used to train ENEC employees.

5.3.5 Research and Development

In 2014 ENEC joined the Electric Power Research Institute (EPRI) nuclear research program. The membership will enable ENEC to access a wide array of EPRI research results and technical guidance that can inform the development and operation of Barakah NPP. The collaboration will also enable EPRI and its global membership to collect data and draw lessons from ENEC's plants under construction that can be shared with the broader nuclear industry.

6 The Future

ENEC is committed to a long-term sustainable development journey, and this report represents the latest step in the organization's mission to deliver safe, clean and reliable nuclear energy to the UAE starting in 2017 and for decades to come.

The organization recognizes that sustainability has no end and is a process of continual evolution. Therefore, ENEC is committed to ongoing application and development of its sustainability program to ensure the business continues to deliver on the pillars outlined in its ENEC HSE&S Division Sustainability Framework and adapts accordingly to meet the changing external environment and its stakeholder's expectations.

To ensure this happens, a number of sustainability program commitments have been set for 2015 and will be reported against in the next sustainability report and outlined in section 2.4.2.

7 Appendices

GRI G4-18, G4-20

APPENDIX A - REPORT SCOPE AND BOUNDARIES

The scope and reporting boundary of this report includes operations and activities that fall under ENEC's management control, including corporate offices and activities at leased buildings in Abu Dhabi, and construction-related activities at the Barakah site and ancillary venues. Where possible, the impacts of contractors are represented in the performance and management information provided. Because the Barakah site is in the construction phase, this report does not address the impacts of consumer use of products.

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

The information discussed in this report is based on performance and company status as of December 31, 2014. The reporting period is January 1, 2014–December 31, 2014.

Compiling this report has helped ENEC to better understand the impact of its operations and highlights data streams that ENEC will continue to monitor for future reporting. No limitations for reporting on scope or boundary were identified during the preparation of this report.

Materiality

A process of materiality determination is used to focus ENEC's approach to sustainability, ensuring ENEC is managing and reporting on the most important issues. Determining sustainability materiality is an ongoing process that continues to incorporate the input of stakeholders, as well as international and national initiatives and guidelines. For the 2014 report, this has included:

- Internal engagement with all departments of the organization
- The Abu Dhabi Economic Vision 2030
- The UAE Vision 2021
- The Abu Dhabi Sustainability Group Annual Report
- The GRI G4 material aspects
- The GRI G4 Sector Disclosures for Electric Utilities
- A review of 12 international nuclear energy company sustainability reports
- A review of the World Association of Nuclear Operators (WANO) documentation

The material sustainability aspects selected through an internal assessment process reflect ENEC's significant economic, environmental, and social impacts, or they influence substantively the assessments and decisions of stakeholders. All of the material aspects are material within all parts of the organization and the United Arab Emirates.

GRI G4-19, G4-20, G4-21

Sustainability Value Pillars	Sustainability Aspects	External Boundaries (as per stakeholder table in Appendix B)
Clean, safe, reliable and efficient power for the UAE	Safety and security	Government, suppliers and contractors, the international nuclear industry and local community
	Environmental management	Suppliers and contractors, government and the international nuclear industry
	Health and wellbeing	Suppliers and contractors
	Quality, efficiency and reliability	International organizations
Industrial and economic development	Financial responsibility	Government
	Abu Dhabi development	Government and local communities
	Supply chain management	Government, suppliers and contractors
Knowledge and employment	Highly skilled employment	Government
	National talent development	Government and local community
	Knowledge creation	Academic institutions

GRI G4-24, G4-26, G4-27

GRI G4-24, G4-26, G4-27

APPENDIX B – STAKEHOLDER MAPPING

ENEC Stakeholder Groups			
Stakeholder	**Description**	**Interest/Role/Expectations**	**Channels of Engagement**
Employees	All persons directly hired and paid a salary by ENEC.	Safe, secure and dynamic work environment together with the skills development and support required to deliver effectively.	Internal staff intranet All staff and division meetings Performance appraisals Employee satisfaction surveys Grievance system Feedback/suggestion systems Internal newsletters Recognition and awards program ENEC Life+ ENEC Women in Nuclear Chapter Internal branding and collateral
Suppliers and Contractors	UAE and international companies that supply a range of goods and services, for all phases of the program.	Regular information about volume and nature of contracts available, QA standards and requirements to tender. Prompt payment and transparency in the selection process.	Bidding and tendering Dedicated procurement portal on ENEC's corporate website Collaborative monitoring of project delivery Visits to potential suppliers Dedicated Industrial Development Team Supplier Code of Conduct
Performance appraisals	Federal, regional and local government entities 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 Mini government forums Participation in governmental initiatives and campaigns Routine reporting of environmental management and timely notification of significant incidents
Affected Communities and Individuals	Residents of the UAE, in particular of Abu Dhabi and the Western Region; the location of the project site.	Potential impacts caused during project conception, construction, operations and decommissioning.	Joint charitable and research initiatives supporting important local causes, infrastructure and events Regular community forums Public opinion polls Local community events and sponsorships Access to Site Communication Officers Engagement in partnership with government, industry bodies, and stakeholder groups (i.e. the Abu Dhabi Sustainability Group) Engagement and collaboration with a variety of NGOs Conducting community engagement meetings as required Our own employees whose families live in the local communities Public reports as required Media relations activities Local public forums Public opinion surveys
Nuclear Industry 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 forums Interactive dialogue Reporting Media relations activities International Advisory Board Associated events, seminars, conferences and regional events
Media	Local, regional and international media.	Ongoing access to timely, comprehensive information about the project.	Regular press releases about the latest project updates and important events In-depth background media briefings Nuclear energy training for journalists Executive Interviews and Q&As Project news and updates Media relations activities Public reports Press conferences and events
International Organizations, Government and Financial Institutions	Multilateral organizations, governments of GCC nations, governments of civilian nuclear programs.	Ongoing access to timely, comprehensive information about the project.	Delegations and events Program Executive Update Responding to ongoing requests for information Public reports Conferences and workshops
Academic Institutions	Federal, regional and international academic institutions.	Involvement in human capacity development, vocational and technical training, bachelors and masters programs.	Energy Pioneers Programs Regular events and career fairs at schools and universities, and holds dedicated ENEC forums for campuses.
Non-Governmental Organizations	Environmental and social interest groups.	Potential environmental and social impacts/issues during all phases of the project.	One to one meetings with NGOs as appropriate ENEC Public Forums Reporting Media relations activities

APPENDIX C – GRI G4 CONTENT INDEX

ENEC has developed this report 'in accordance' with the GRI G4 guidelines core reporting option. As signified by the organisational mark above, the report has successfully completed a Materiality Disclosure/Content Index Service provided by the GRI. The table below is an index of the GRI disclosures included in this report as per the G4 guidelines.

GENERAL STANDARD DISCLOSURES		
General Standard Disclosures	**Page Number**	**External Assurance**
STRATEGY AND ANALYSIS		
G4-1	4 + 5	Not assured
G4-2	28	Not assured
ORGANIZATIONAL PROFILE		
G4-3	12	Not assured
G4-4	12 + 22	Not assured
G4-5	Abu Dhabi	Not assured
G4-6	UAE	Not assured
G4-7	Government owned	Not assured
G4-8	UAE	Not assured
G4-9	8 + 9	Not assured
G4-10	92 + 93	Not assured
G4-11	0%	Not assured
G4-12	84	Not assured
G4-13	2 + 3	Not assured
G4-14	4 + 5	Not assured
G4-15	47	Not assured
G4-16	47	Not assured
IDENTIFIED MATERIAL ASPECTS AND BOUNDARIES		
G4-17	ENEC has no public financial statements	Not assured
G4-18	112	Not assured
G4-19	113	Not assured
G4-20	112 + 113	Not assured
G4-21	113	Not assured
G4-22	No restatements	Not assured
G4-23	No significant changes	Not assured
STAKEHOLDER ENGAGEMENT		
G4-24	114 + 115	Not assured
G4-25	38 + 39	Not assured
G4-26	114 + 115	Not assured
G4-27	39 + 114 + 115	Not assured
REPORT PROFILE		
G4-28	2015	Not assured
G4-29	2014	Not assured
G4-30	Annual	Not assured
G4-31	3	Not assured
G4-32	116 + 117 + 118	Not assured
G4-33	3	Not assured
GOVERNANCE		
G4-34	29 + 30 + 31	Not assured
ETHICS AND INTEGRITY		
G4-56	13	Not assured

SPECIFIC STANDARD DISCLOSURES			
DMA and Indicators	**Page Number**	**Omissions**	**External Assurance.**
CATEGORY: ECONOMIC			
MATERIAL ASPECT: ECONOMIC PERFORMANCE			
G4-DMA	78		Not assured
G4-EC1		Information related to government funding of the nuclear power project is deemed highly confidential as it relates to government finances and therefore can not be included.	Not assured
MATERIAL ASPECT: MARKET PRESENCE			
G4-DMA	85 + 101		Not assured
G4-EC6	101		Not assured
MATERIAL ASPECT: INDIRECT ECONOMIC IMPACTS			
G4-DMA	78		Not assured
G4-EC8	78 + 81		Not assured
G4-EC9	81 + 86 + 98		
MATERIAL ASPECT: PROCUREMENT PRACTICES			
G4-DMA	94 + 95		Not assured
G4-EC9	94 + 95		Not assured
CATEGORY: ENVIRONMENTAL			
MATERIAL ASPECT: MATERIALS			
G4-DMA	62		Not assured
G4-EN1	64		Not assured
MATERIAL ASPECT: ENERGY			
G4-DMA	62 + 66		Not assured
G4-EN3	66		Not assured
G4-EN4	66		Not assured
MATERIAL ASPECT: WATER			
G4-DMA	62 + 66		Not assured
G4-EN8	67		Not assured
G4-EN10	65		Not assured
MATERIAL ASPECT: BIODIVERSITY			
G4-DMA	62 + 70		Not assured
G4-EN13	70		Not assured
MATERIAL ASPECT: EMISSIONS			
G4-DMA	62 + 68		Not assured
G4-EN15	69		Not assured
G4-EN16	69		Not assured

G4-EN17	69		Not assured
MATERIAL ASPECT: EFFLUENTS AND WASTE			
G4-DMA	62 + 64		Not assured
G4-EN22	65		Not assured
G4-EN23	65		Not assured
MATERIAL ASPECT: COMPLIANCE			
G4-DMA	62 + 63		Not assured
G4-EN29	62		Not assured
CATEGORY: SOCIAL			
SUB-CATEGORY: LABOR PRACTICES AND DECENT WORK			
MATERIAL ASPECT: EMPLOYMENT			
G4-DMA	90 + 91		Not assured
G4-LA1	93 + 95		Not assured
G4-LA2	93		Not assured
MATERIAL ASPECT: OCCUPATIONAL HEALTH AND SAFETY			
G4-DMA	55		Not assured
G4-LA6	56		Not assured
MATERIAL ASPECT: TRAINING AND EDUCATION			
G4-DMA	98 + 104		Not assured
G4-LA9	104		Not assured
MATERIAL ASPECT: DIVERSITY AND EQUAL OPPORTUNITY			
G4-DMA	96		Not assured
G4-LA12	30 + 92 + 96		Not assured
MATERIAL ASPECT: SUPPLIER ASSESSMENT FOR LABOR PRACTICES			
G4-DMA	87		Not assured
G4-LA14	87		Not assured
MATERIAL ASPECT: LABOR PRACTICES GRIEVANCE MECHANISMS			
G4-DMA	73		Not assured
G4-LA16	73		Not assured
SUB-CATEGORY: HUMAN RIGHTS			
MATERIAL ASPECT: SECURITY PRACTICES			
G4-DMA	59 + 59		Not assured
G4-HR7	58 + 59		Not assured
MATERIAL ASPECT: SUPPLIER HUMAN RIGHTS ASSESSMENT			
G4-DMA	87		Not assured
G4-HR10	87		Not assured
SUB-CATEGORY: SOCIETY			
MATERIAL ASPECT: LOCAL COMMUNITIES			
G4-DMA	42 + 82		Not assured
G4-SO1	100% - 42 + 82		Not assured
MATERIAL ASPECT: ANTI-CORRUPTION			
G4-DMA	35		Not assured
G4-SO4	35		Not assured
MATERIAL ASPECT: COMPLIANCE			
G4-DMA	35		Not assured
G4-SO8	0		Not assured

APPENDIX D – ACRONYMS AND GLOSSARY

Acronyms			
ABISET	Applied Bachelor's in Information Security Engineering Technology	HSEMS	Health, Safety and Environment Management System
ADAA	Abu Dhabi Accountability Authority	IAB	International Advisory Board
ADNOC	Abu Dhabi National Oil Company	IAEA	International Atomic Energy Agency
ADSF	Abu Dhabi Science Festival	INPO	Institute of Nuclear Power Operations
ADSG	Abu Dhabi Sustainability Group	IRM	Institute of Risk Management
AED	United Arab Emirates Dirham	ISO	International Organization for Standardization
APR	Advanced Power Reactor	JQC	Job Qualification Certificate
ARCC	Audit, Risk and Compliance Committee	KEPCO	Korea Electric Power Corporation
ARM	Active Risk Manager	KU	Khalifa University of Science, Technology and Research
BCM	Business Continuity Management	kWh	KilowattHour
CEMP	Construction Environmental Management Plan	LTIFR	LostTime Injury Frequency Rate
CEO	Chief Executive Officer	m^3	Cubic Meter
CICPA	Critical Infrastructure and Coastal Protection Authority	MEPRA	Middle East Public Relations Association
CIPS	Chartered Institute of Purchasing and Supply	MoU	Memorandum of Understanding
CO_2e	Carbon Dioxide Equivalent	$MTCO_2eq$	Metric Tons of Carbon Dioxide Equivalent
CR	Condition Reporting	MW	Mega Watt
CSR	Corporate Social Responsibility	NGO	NonGovernmental Organization
CVD	Cardio Vascular Disease	NMDC	National Marine Dredging Company
Ducab	Dubai Cable Company Ltd	NO_x	Nitrogen Oxides
EAD	Environment Agency Abu Dhabi	NPP	Nuclear Power Plant
EC	Executive Committee	OEMP	Operational Environmental Management Plan
EIA	Environmental Impact Assessments	OHSAS	Occupational Health and Safety Advisory Services
ENEC	Emirates Nuclear Energy Corporation	PSC	Procurement and Supply Chain
EPRI	Electric Power Research Institute	QA	Quality Assurance
EQ	Equipment Qualification	RCB	Reactor Containment Building
ERM	Enterprise Risk (Threat and Opportunity) Management	RO	Reactor Operator
ERMC	Executive Risk Management Committee	So_x	Sulfur Oxides
ERT	Emergency Response Team	SRO	Senior Reactor Operator
FANR	Federal Authority for Nuclear Regulation	STC	Simulator Training Center
GBPE	General Business Principles and Ethics	TRCF	Total Recordable Case Frequency
GCC	Gulf Cooperation Council	UAE	United Arab Emirates
GDP	Gross Domestic Product	UK	United Kingdom
GHG	Green House Gas	USD	United States Dollar

GRI	Global Reporting Initiative	WANO	World Association of Nuclear Operators
GWh	GigawattHour	WBCSD	World Business Council on Sustainable Development
HCC	Human Capital Committee	WiN	Women in Nuclear
HIT	High Impact Team	WNE	World Nuclear Exhibition
HQ	Head Quarters	WRI	World Resources Institute
HSE	Health, Safety and Environment		

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 natural program initiated by the government of the United Arab Emirates to proactively increase the number of Emirati nationals in the public and private sectors to empower nationals and reduce dependency on foreign workers.
Environmental Management System	The management of environmental programs on a comprehensive, systematic, planned and documented manner. It includes the organizational structure, planning and resources for developing, implementing and maintaining policy for environmental protection.
G4 Reporting Guidelines	A fourth generation framework for reporting on an organizations' economic, environmental and social performance, managed by the GRI.
Global Reporting Initiative (GRI)	A longterm multistakeholder, international process whose mission is to develop and disseminate globally applicable sustainability reporting guidelines.
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 hydro fluorocarbon 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 power plants 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 power reactors. This can include uranium discovery, conversion, enrichment, deconversion, fuel fabrication, use of fuel in reactors, storage, reprocessing and disposal.
Occupational Health and Safety	A crossdisciplinary 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 stakeholder's engage in dialog to improve a firm's decisionmaking and accountability toward sustainable development.
Stakeholders	A party that affects or can be affected by the actions of the business.
Sustainability	The definition of Sustainability derives from the definition of Sustainable Development; Sustainable Development is the development that meets the needs of the present without compromising the ability of future generations to meet their own needs. World Commission on the Environment and Development (WCDE) 1987
Sustainability Reporting	The voluntary public presentation of information about an organization's environmental, social and economic performance over a time frame, 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 standalone document, on a company web site or incorporated into an annual report.
Uranium	The dense grey radioactive element used as a fuel in nuclear reactors.