



Powering a Sustainable Future

2015
Sustainability Report



About this report

Publishing an annual sustainability report is an expression of the Emirates Nuclear Energy Corporation's (ENEC) commitment to economic, social and environmental responsibility as a core principle. This report is designed to provide a comprehensive update on ENEC's progress on these areas in 2015. 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 more information on the GRI, please visit www.globalreporting.org. This report follows the Global Reporting Initiative (GRI) G4 guidelines 'in accordance' with 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 organizational mark can be found in Appendix C.

ENEC has published this report to comprehensively communicate the corporation's social, environmental and economic performance in a transparent manner. It is important to note that ENEC does not currently offer any product or service, and is not expected to do so until the corporation's first nuclear energy generating unit becomes operational. ENEC is currently in the construction phase of its program, with 2015 marking a year of increased momentum for the project. This may result in significant variations in reporting figures between 2014 and 2015.

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

uncertainties and should not be relied upon due to ever changing future events that could materially change the outcome.

This document has not been subject to review by a third party assurance provider. For questions or comments regarding this report and ENEC's sustainability program, please visit www.enec.gov.ae or contact sustainabilitycsr@enec.gov.ae.



Mohamed Al Hammadi
Chief Executive Officer

The United Arab Emirates (UAE) Vision 2021 sets out a clear strategy for the nation's future growth and prosperity. Using the principles of sustainable development, the Vision sets out a national agenda that incorporates social development, environmental preservation, and a transformation to a competitive knowledge-based economy.

Nuclear energy is critical to making the national vision a reality, and through this report, we will continue to show how investment in the development of a peaceful nuclear energy program, is an investment in a more sustainable future for the UAE.

When the UAE embarked on the journey to develop and build the country's first nuclear energy plant in 2009, it was the first country to do so in 27 years. Today the Barakah plant is the largest nuclear new build site in the world with four identical reactors being constructed simultaneously. All four reactors are due to be connected to the grid by 2020 to supply up to 25% of the UAE's energy needs in a safe, clean, reliable and efficient manner. Nuclear energy will reduce the UAE's carbon footprint, diversify its energy portfolio and be a reliable and efficient source of energy for over 60 years.

The Barakah plant is one of the biggest industrial projects undertaken in the region and is helping to create new highly skilled jobs as well as develop the local supply chain. Building the first nuclear energy plant in the UAE has helped raise the quality of industry in the UAE to the highest international standards and ensuring companies comply with global nuclear requirements, opening new export markets for our national suppliers.

Creating a new nuclear sector not only brings industrial development, but also new knowledge and new skills to the

country. The project is supporting large-scale investment in the development of Emirati talent, while also building human capacity in the region by creating nuclear education and training infrastructure. 2015 saw the graduation of U.A.E's first nuclear professionals. These experts will become the future operators of the plant.

ENEC is focused and committed to delivering on these three national sustainability value creation objectives - **safe, clean reliable and efficient energy, industrial and economic development, and knowledge and employment** - and through this report the public will gain an insight into what ENEC has achieved in these areas in 2015.

As we look back over the last 12 months, ENEC has celebrated many milestones including the graduation of 64 new Energy Pioneers, 62% Emiratization rate, improving safety performance by our contractors and sub-contractors, and over \$2.9 billion of contracts awarded to local suppliers to date. These achievements are underpinned by our conscious effort to build a culture of excellence into everything we do, and as a result we were honored to receive the Most Distinguished Government Entity Award in the prestigious Abu Dhabi Award for Excellence in Government Performance.

Looking towards 2016, our focus will remain on advancing the construction of the plant, while simultaneously scaling up our preparations to operate, all with safety as the overriding priority. We will continue to invest time and effort to deliver on all aspects of our sustainability mandate, working towards operational efficiency and economic responsibility while maintaining social and environmental integrity.

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2015 Sustainability Highlights



Safe, Clean Reliable and Efficient Energy for the UAE

ENEC's primary contribution to national sustainability development 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.

Safety training

To date ENEC has conducted more than 7,500 dedicated safety training sessions, where attendance has totaled to 250,000.

Excellence awards

Winner of the Most Distinguished Government Entity Award in Abu Dhabi Award Excellence in Government Performance.

Employee fatalities (number*)

2014 - 0 | 2015 - 0

* Employees, contractors and subcontractor employees.

Reportable environmental incidents

2014 - 0 | 2015 - 0

Integrated Safety, Security and Safeguards Policy launched in 2015

Project completion

2014 - 40% | 2015 - **58.4%**

Lost-time injury frequency rates

2014 - 0.35 | 2015 - **0.95**

CO₂ emissions in 2015 (Metric tons CO₂-eq/person)

2014 - 14.6 | 2015 - **14.5**

Water consumption intensity (Cubic meters/person)

2014 - 289 | 2015 - **550**



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.

Creation of the Nuclear Insurance Pool

The Nuclear Insurance Pool provides insurance against various risks at the construction, operation and decommissioning stages of the plant.

Building a supply chain

Up to 2015, around 1,100 UAE companies had been awarded contracts totaling US\$2.9 billion.

Spending on local suppliers (in \$ million)

2014 - 232 | 2015 - **389**

ENEC Employees (number*)

2014 - 1,372 | 2015 - **1,574**

* Does not include contractors and subcontractor employees.

Jobs created

2014 - 533 | 2015 - **290**

Developing local suppliers

ENEC is developing nuclear grade suppliers in the UAE and the region. Cable supplier Ducab won a breakthrough contract to supply cabling for two Republic of Korea nuclear plants.

Developing local infrastructure

The financial implications of ENEC's presence in the Western Region is estimated to be AED 62 billion over the lifetime of the plant. Furthermore, public services and infrastructure are being developed as part of the project.



Knowledge and Employment

The UAE Peaceful Nuclear Energy Program will deliver high-value jobs for UAE 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.

Emiratization rate

2014 - 62% | 2015 - **62%**

Average hours of training provided to employees

2014 - 29 | 2015 - **88**

Advanced Nuclear Training

ENEC successfully installed its second full scope APR-1400 training simulator and upgraded its first full scope simulator to become one of the most advanced nuclear training devices in the world.

Nuclear scholarships awarded (number)

Up to 2015 - **400+**

Percentage of women employed

2014 - 21% | 2015 - **20%**

UAE-IAEA Nuclear Energy Management School

UAE-IAEA Nuclear Energy Management School, the first in Abu Dhabi and the region, hosted 45 participants, including 31+ participants from ENEC, Federal Authority for Nuclear Regulation (FANR) and Critical Infrastructure and Coastal Protection Authority (CICPA) and 11 international participants.



Award for Excellence

Winner of the Most Distinguished Government Entity Award in Abu Dhabi Award for the Excellence in Government Performance.

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The Emirates Nuclear Energy Corporation

About ENEC

The Emirates Nuclear Energy Corporation (ENEC) was established by decree in December 2009 by His Highness Sheikh Khalifa bin Zayed Al Nahyan, President of the United Arab Emirates and ruler of Abu Dhabi, to address the country's growing demand for electricity while diversifying the nation's energy supply and delivering greater energy security. *"Nuclear Power is the most practical, sustainable, and environmentally friendly energy generation option available to the UAE in the near future, and ENEC will begin to deliver this to our nation. – H.E. Matar Al Neyadi, Under Secretary of the UAE Ministry of Energy.*

ENEC started constructing the country's first nuclear energy power plant in Barakah, in the Western Region of Abu Dhabi, and by 2020, the site will have four operational Generation III+ APR-1400 nuclear energy plants.

Since its establishment in 2009, ENEC has continued to grow and develop into a world-class nuclear energy project with a team of more than 1,500 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 power to the UAE grid, while developing our people and building sustainable nuclear operational capability.



Vision

Powering the future growth and prosperity of the UAE through a safe and sustainable civil 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

Current Strategic Goals

ENEC is at a critical point in its evolution. Construction of all four nuclear energy units is well underway; the target date for the first unit to be operational is approaching and the corporation continues to scale up at impressive speed. To manage this evolution effectively, ENEC has set three key strategic goals and 15 objectives that will ensure the corporation meets its ambitious targets.

1.1.2

Prioritizing Safety

Safety is integral to every decision at every level of ENEC. It is the overriding priority of the corporation and is ingrained in the strategy, culture and day-to-day operations of the corporation. A rigorous approach to safety is continuously reinforced through clear processes, procedures, training and communication and will ultimately help ENEC to deliver a nuclear energy program that sets new standards for the industry.



The Federal Authority for Nuclear Regulation (FANR), the UAE's nuclear regulatory body, has established a safety framework for ENEC that includes: setting standards, regulatory guides, promulgating regulations, issuing licenses and amendments, conducting inspections and audits, and enforcement.

Furthermore, ENEC has selected an advanced generation of pressurized water reactors (PWR) to enhance operational safety of the Barakah project. ENEC has implemented a comprehensive regime that maintains a high level of safety in accordance with international benchmarks, ensuring all nuclear-related installations are operated in a safe, well-regulated and environmentally sound manner. These safety evaluations, requirements and guidelines are from U.S. NRC, INPO, IAEA and WANO.



ENEC is committed to the highest standards of safety and has considered partnerships with industry bodies with a history of transparent operations and a reputation for excellence in safety.

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

The Nuclear Safety Review Board (NSRB) is an independent ENEC body that provides high-level oversight on critical matters including safety, security, and risk management, and helps to identify any gaps in 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.

Read more about members of the NSRB here <http://www.enec.gov.ae/news/content/enecs-nuclear-safety-review-board-completes-first-meetings>



U.S. NRC Safety Guidelines



Institute of Nuclear Power Operations Evaluations



IAEA Nuclear Safety & Security Guidelines



World Association of Nuclear Operations Technical Support and Exchange

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 national annual peak demand for electricity is likely to rise to more than 40,000 megawatts (MW) by 2020, reflecting a cumulative annual growth rate of roughly 9% from 2007 onwards.

Based upon these projections, the UAE evaluated viable options to meet future energy demands and concluded that nuclear power generation would be the most reliable, efficient, safe, commercially competitive and environmentally friendly means of producing electricity. 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.

In December 2010, ENEC submitted an application to FANR for a license to construct the first two units of a

nuclear facility at the proposed site of Barakah in the Western Region of Abu Dhabi. ENEC is responsible for the development of UAE's peaceful civil nuclear energy program through the following activities:

- Design, construction and operations of nuclear energy plants
- Integration with the UAE government and industrial infrastructure
- Future strategic investments in the nuclear sector, both domestically and internationally

Upon completion, the four units will boast a combined capacity of approximately 5,600 MW and will be capable of generating approximately 25% of the UAE's electricity needs while saving up to 12 million tons of carbon emissions every year.



1.1.3

How Does Nuclear Energy Work?

A nuclear energy plant 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 spins a turbine, which turns a generator, and as a result, electricity is produced.

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.

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
<http://www.enec.gov.ae/learn-about-nuclear-energy>

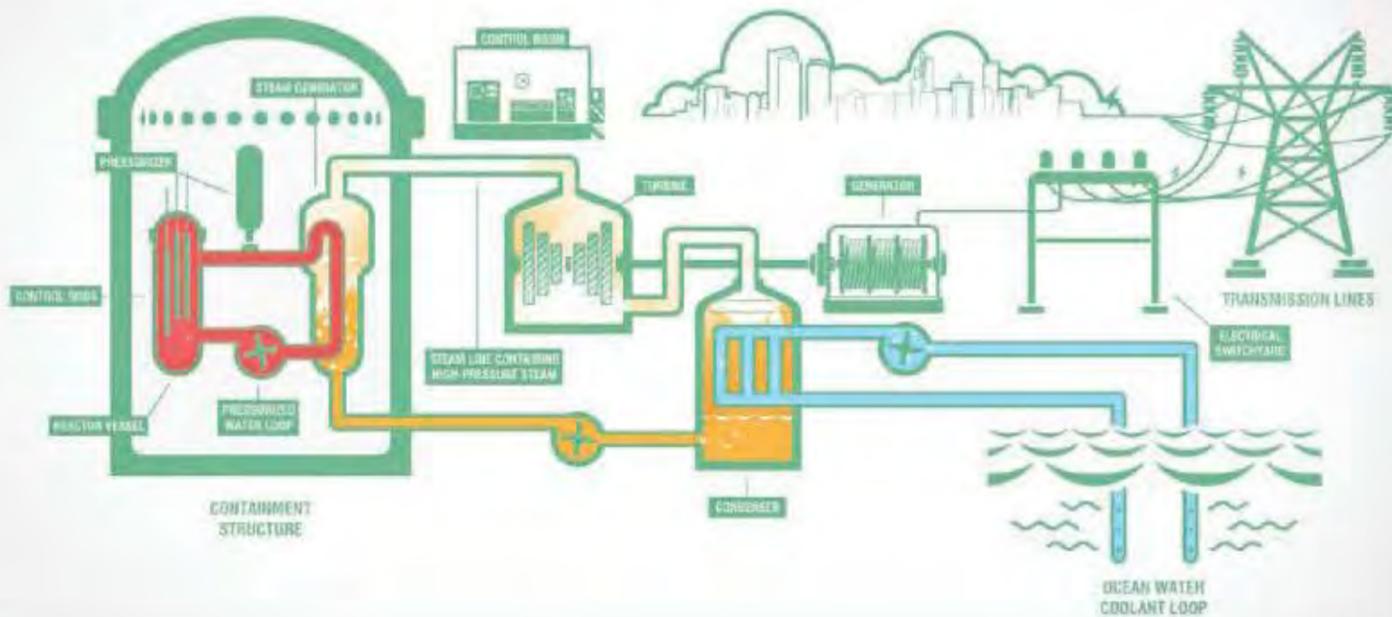
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Nuclear power is among the energy sources and technologies available today that could help meet the climate-energy challenge. GHG emissions from nuclear power plants are negligible.

- Climate Change and Nuclear Power 2016, IAEA

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Figure 1: How Nuclear Energy Works



1.1.4

Peaceful Nuclear Energy Policy

The UAE's peaceful nuclear energy policy is outlined in the document "Policy of the United Arab Emirates on the Evaluation and Potential Development of Peaceful Nuclear Energy". The policy is derived from the political commitment of the UAE to peaceful use of nuclear energy, made in 1995 upon accession for the Non Proliferation Treaty (NPT), as well as ratification of the IAEA Safeguards Agreement in 2003. As a result, the UAE has taken several steps to adopt and enforce all major international non-proliferation instruments, including the IAEA Additional Protocol to the Safeguards Agreement.

The UAE's nuclear energy policy emphasizes six key principles:

- Complete operational transparency
- The highest standards of non-proliferation
- The highest standards of safety and security
- Working directly with the IAEA and conforming to its standards
- Partnerships with responsible nations and appropriate expert organizations
- Long-term sustainability

The International Advisory Board (IAB), an independent advisory board of nuclear industry experts, established by the UAE government, augments the transparency of its peaceful nuclear energy program through its bi-annual review reports, which are publicly available. Find more information about IAB here <http://www.enec.gov.ae/learn-about-nuclear-energy/nuclear-energy-in-the-uae/international-advisory-board>

1.1.5

Federal Law and Regulation

ENEC operates under the Abu Dhabi Law No. 21 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 regulating all occupational safety and health issues at an Emirate level, including ENEC's activities. For water and electricity management ENEC is regulated by Regulation & Supervision Bureau (RSB), an independent regulatory body for the Emirate of Abu Dhabi.





1.1.6

International Involvement

The UAE's nuclear energy program benefits from 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. 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

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 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. www.inpo.info

World Association of Nuclear Operators

Created to improve safety at every nuclear energy 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

ENEC's Program and Progress

1.1.7

The Barakah Nuclear Energy Plant

In December 2009, Emirates Nuclear Energy Corporation (ENEC) awarded a contract to a consortium led by Korea Electric Power Corporation (KEPCO) to build four nuclear power units. Barakah, about 50 km west of Ruwais, was chosen as the site.

Construction for Unit 1 began in July 2012 following the first pouring of nuclear safety concrete. Unit 2 began construction in 2013, in line with the approved Construction License from ENEC's regulator the FANR and a No Objection Certificate from Abu Dhabi's environmental regulator, the EAD. ENEC received its Construction License for Units 3 & 4 from FANR in the last quarter of 2014.

All four units are expected to be operational by 2020.

1.1.8

KEPCO - Prime Contractor

KEPCO is the designer of the Barakah Units, and is the prime contractor for construction for ENEC. KEPCO, a Korean government owned company, has an installed nuclear generation capacity of over 17,000 MW and operates 20 commercial nuclear power units all around the world. KEPCO and its subcontractors and subsidiaries (As outlined below in Figure 2) supply the full scope of work and services for Barakah Units including engineering, procurement, construction, nuclear fuel, and operations and maintenance support.

Other major nuclear equipment suppliers include Westinghouse of the U.S. and Toshiba of Japan.

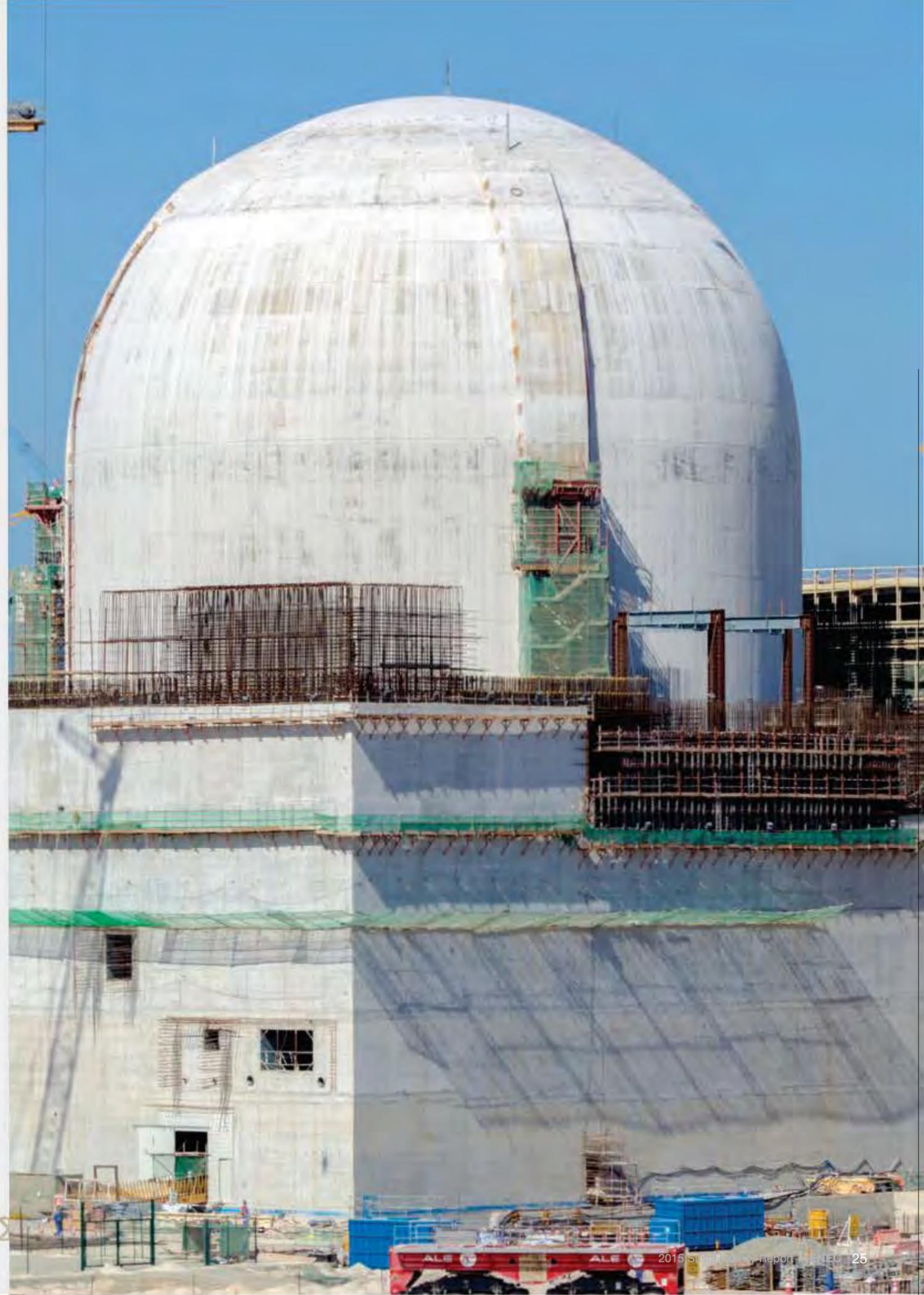
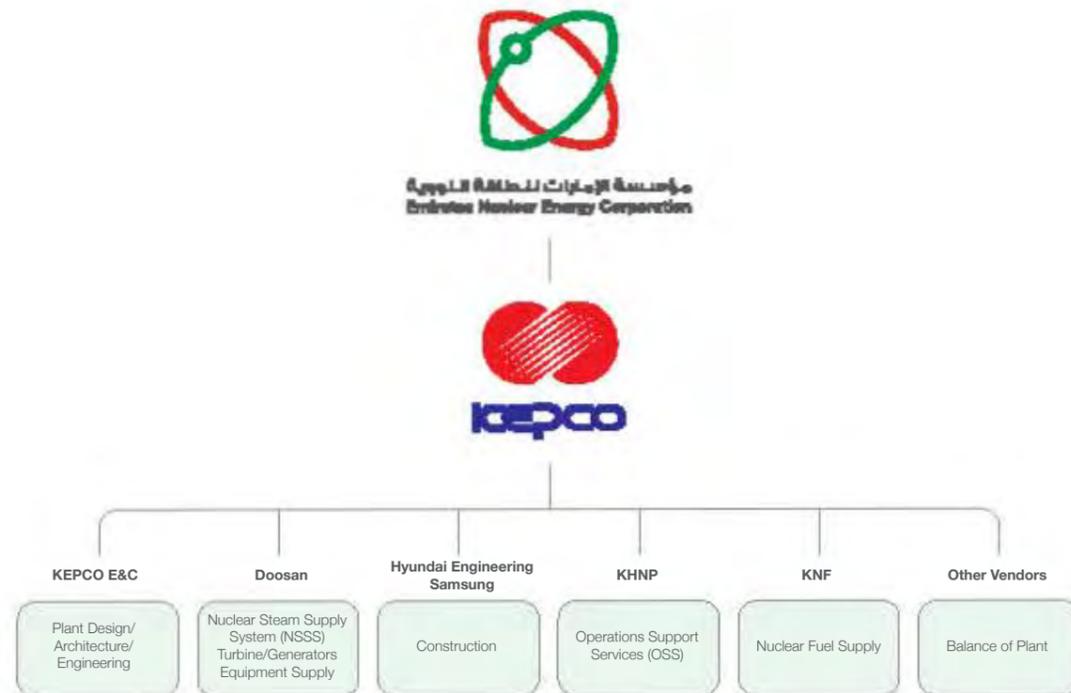


Figure 2: KEPCO and Other Contractors



1.1.9

Advanced Technology

Barakah will be home to four Generation III+ reactors of the APR-1400 design. This advanced design achieves the highest industry standards of safety, operational performance, environmental impact and operating life.

The APR-1400 is a PWR and produces 1,400 megawatts of electricity. Each unit has an estimated operational life-time of 60 years, subject to regulatory approval. The APR-1400 is based on the System 80+ design, which was certified by the NRC in the United States of America.

As a Generation III+ reactor, the APR-1400's safety system is set up to prevent or mitigate severe incidents 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 fulfill the latest requirements for earthquake safety and aircraft impact resistance.

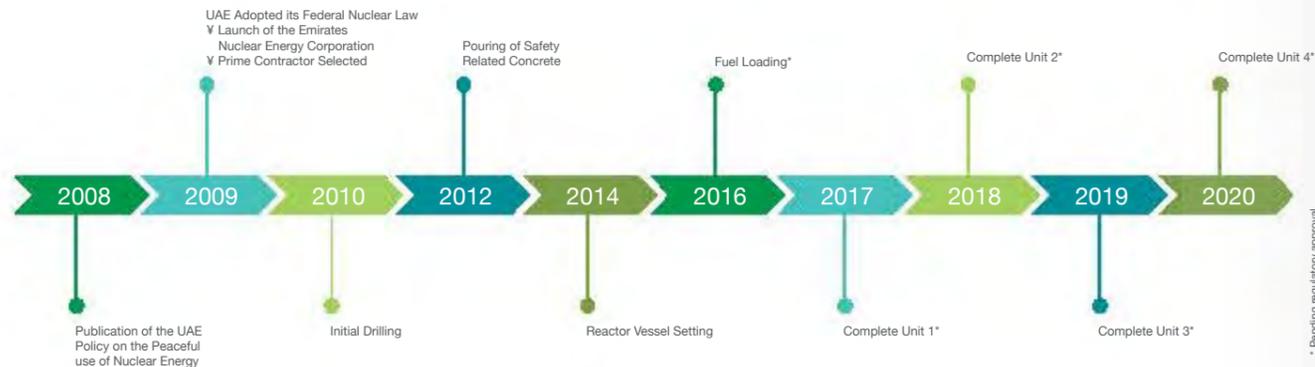


1.1.10

Project Timeline and Update

ENEC has an ambitious project delivery schedule and is committed to achieving it without compromising on safety. Progress on delivering the four units was at 58.4% as of the end of 2015, in line with expectations, this

means the overall program is on schedule to be complete by 2020, when all units are operational and provide the UAE with emissions-free electricity to power the future growth of the nation.



1.1.11

Preparing for Operations

In 2015, ENEC submitted its application for an Operating License to the FANR for Units 1 and 2. As of the end of 2015, and into 2016, ENEC will continue to respond to Requests for Additional Information (RAI) from the regulator. ENEC aims to secure its operating licenses from FANR in 2016 ensuring preparations can be made for fuel loading.

As construction of the plant continues to make significant progress, the corporation is also focused on recruiting, training and mobilizing a team of highly skilled nuclear energy professionals who will be at the very heart of operating this world-class nuclear facility.

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 units 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.



Sustainability at ENEC

ENEC's Contribution to Sustainable Development

The UAE has invested in the creation of a peaceful nuclear energy sector in order to accelerate the transition to economic, environmental and social sustainability. ENEC's role is to make this ambition a reality, and it is doing so by focusing on three key areas, delivering:

1. Safe, clean, reliable and efficient energy.
2. Industrial and economic development.
3. Knowledge and employment.

Delivering on these three pillars will create a significant positive impact on the national sustainability development of the UAE and contribute directly to the achievement of the global goals for sustainable development.

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Sustainable development is the pathway to the future we want for all. It offers a framework to generate economic growth, achieve social justice, exercise environmental stewardship and strengthen governance.

- Ban Ki-moon,
Secretary General of the United Nations.

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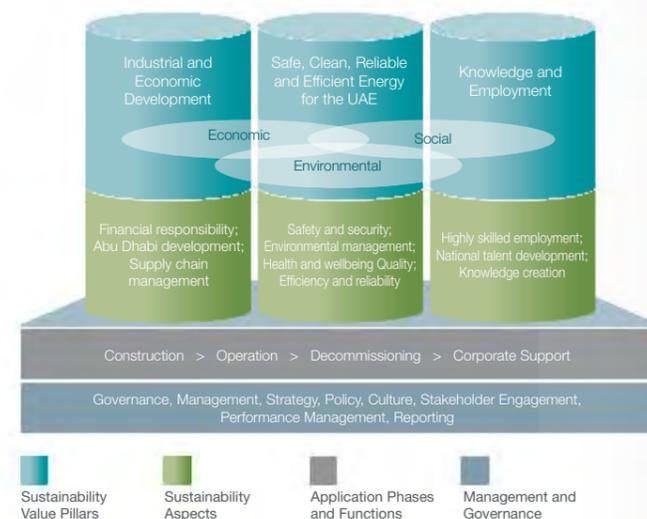
Sustainability Management

ENEC launched its sustainability management program in 2013 - the objective is to support the ongoing integration of sustainability thinking across the corporation. To manage this process, ENEC's Corporate HSE department created a sustainability framework that defines:

- Sustainability Value Pillars - the impact ENEC is having on the sustainability of the nation.
- Sustainability Aspects - the topics ENEC must act upon to ensure it is operating in a sustainable manner on a day-to-day basis.
- Application Phases and Functions - the different areas in which these topics must be addressed.
- Management and Governance - the fundamental organizational structures that form the foundation of ENEC's implementation of sustainability.

Through the corporation's value pillars, the sustainability framework brings attention 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 now and into the future. Each of the sustainability aspects has an associated objective, sub-

issues and performance measurement indicators which are designed to provide guidance on what should be measured, monitored and improved. These aspects and their objectives have been determined using a materiality process that is outlined in further detail in Appendix A.



The Global Sustainable Development Goals (SDGs)

In 2015, the world came together at the United Nations to ratify 17 Global Goals for Sustainable Development. This has only served to solidify a growing movement by governments around the world to ensure national and international development is achieved in a way that does not compromise on the ability of future generations to meet their needs. Achieving Sustainable Development Goals (SDGs) through its construction, operations and decommissioning will be a key focus for ENEC in the years to come.



<http://www.undp.org/content/undp/en/home/sustainable-development-goals.html>



2.1.2 Sustainability Management Commitments

In the 2014 Sustainability Report, ENEC set a number of sustainability management commitments. Progress against these commitments and a number of new commitments for 2016 are outlined in the table below.

Sustainability Commitment	2015 Progress	2016 Target
1. The continued development and implementation of Sustainability and CSR frameworks.	Sustainability KPIs were agreed and are now being integrated within the executive management and Board of Directors dashboards.	To integrate the sustainability framework into the HSES Management System.
2. Management approval for the Sustainability and CSR Working Group charter.	Completed.	Updates will be made to integrate additional responsibilities.
3. Awareness sessions for employees to increase understanding of sustainability at ENEC.	Ongoing.	Awareness sessions have been scheduled quarterly in 2016 for both corporate offices and the Barakah site.
4. Benchmarking of ENEC's sustainability performance against national energy companies and international nuclear energy companies.	Limited benchmarking was completed.	Benchmarking will continue to be performed as required.
5. Review and update ENEC's 2014 material sustainability issues using the GRI G4 guidance on materiality assessment.	Ongoing.	Updates will utilise input from the WG and key external stakeholders.
6. To select and implement one new CSR initiative	CSR initiatives were shortlisted and one selected for implementation.	To begin implementation of the CSR initiative.

2.1.1 Sustainability and CSR Working Group

An ENEC Sustainability and Corporate Social Responsibility Working Group (WG) was formalized in 2014 and is responsible for championing the implementation of sustainability across the corporation. This group consists of representatives from all departments, and regularly convenes to measure, benchmark, discuss and improve the corporation's performance across the sustainability aspects. Under the direction of the HSE Director, the objectives of the WG are:

1. Identify and assist with implementing Sustainability and CSR programs and initiatives.
2. Review and provide input into Framework Development for both the CSR and Sustainability programs.
3. Review and provide input into the Annual Sustainability Report and CSR internal reports. More information on progress in this area can be found on page 33.

2.1.3 Involvement in External Sustainability 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 help guide its sustainability program.

management in Abu Dhabi by providing learning and knowledge sharing opportunities for government, private companies and not-for-profit organizations in a spirit of cooperation and open dialogue. Members must sign the ADSG Declaration and commit to adopting best practices of sustainability management, complete annual sustainability reporting and to actively participate in ADSG activities.

Nationally, ENEC is a member of the Abu Dhabi Sustainability Group (ADSG). The ADSG is a membership organization whose mission is to promote sustainability

Governance and Management

The foundation of ENEC's approach to organizational sustainability is based on secure governance and management structures. ENEC aims to ensure fair and transparent corporate conduct by continuously improving decision making and performance management, enhancing ENEC's internal control system to manage risk and maintain accountability, and formulating measures to ensure strict compliance and high business ethics. This

process is overseen by a highly qualified and competent Board of Directors and Executive Management Team.

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

Board of Directors

The ENEC Board of Directors is mandated to oversee the corporation, 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.

Nuclear Training:

All ENEC's Board Members receive training in nuclear power and nuclear safety. This includes orientation of construction and eventual operations at the Barakah Nuclear Energy Plant. Additionally, the Board also attends training on Board-level governance duties in nuclear power-owning corporations, which is facilitated by the Chairman of the Committee on Nuclear Power.

The Board consists of seven independent and non-executive members, under the Chairmanship of H.E. Khaldoon Khalifa Al Mubarak. The Vice Chairwoman of the Board is a distinguished female Emirati leader; H.E. Sheikha Lubna Bint Khalid Al Qassimi. The term of each Board membership is three years, renewable thereafter.

Board Commitment to Nuclear Safety:

The Board commits to extraordinarily high standards for nuclear safety as set forth in guidance documents published by international organizations such as WANO, INPO, the IAEA, and other oversight bodies. The Board also strictly complies with regulatory requirements of the UAE FANR, RSB & EAD. The ENEC Board embraces industry best practices and supports their implementation

in all aspects of its ownership and operation of nuclear energy facilities. The Board implements such oversight in a rigorous and disciplined approach to governance as codified in the Excellence in Governance Manual Reference.

The Board is scheduled to meet every two months to discuss and decide upon key strategic issues as well as management policies. It is mandatory for ENEC management to implement Board resolutions. In addition, the Board supervises business execution and confirms the progress of management plans. The Board's core responsibilities are as follows:

- Oversee the management of enterprise risk.
- Review financial controls and reporting practices.
- Monitor corporate performance and evaluate results against strategic plans and other long-term objectives.
- Evaluate ENEC's ethical standards and legal compliance programs.
- Assess relations with shareholders and employees.
- Determine compensation for senior management.
- Nominate individuals for Board membership and evaluate the performance of the Board and its committees.
- Review ENEC's governance practices.



H.E. Khaldoon Khalifa Al Mubarak
Chairman

H.E. Sheikha Lubna Bint Khalid Al Qassimi
Vice Chairwoman

H.E. Awaidha Murshed Ali Al-Marar
Board Member

Mohammed A. Sahoo Al Suwaidi
Board Member

Saeed Fadhel Al Mazroei
Board Member

Mohammed Hamdan Al Falahi
Board Member

David V Scott
Board Member

Board Committees

The Board has four standing committees overseeing the corporation's activities and giving clear direction. Each of the Board's four committees; Committee on Nuclear Power (CNP), Audit, Risk and Compliance Committee (ARCC), Human Capital Committee (HCC), and Executive Committee (EC); has a written Board-approved charter detailing its responsibilities.



A key to achieving success is to assemble a strong and stable management team.

- Vivek Wadhwa,
An American Technology Entrepreneur
and Academic.



ENEC Board of Directors Committees		
Committee	Description	Sustainability Issues Addressed
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.	<ul style="list-style-type: none"> • Health and safety • Security • Quality and reliability • Environmental management
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).	<ul style="list-style-type: none"> • Governance and accountability • Risk management • Ethics • Regulatory compliance
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.	<ul style="list-style-type: none"> • Resourcing and succession • Emiratisation • Training and development
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 multi-party issues associated with the project.	<ul style="list-style-type: none"> • Project budgeting and financing • Project progress • Review emergency and security preparedness

2.2.3 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 them 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 audit assessments by the ADAA.

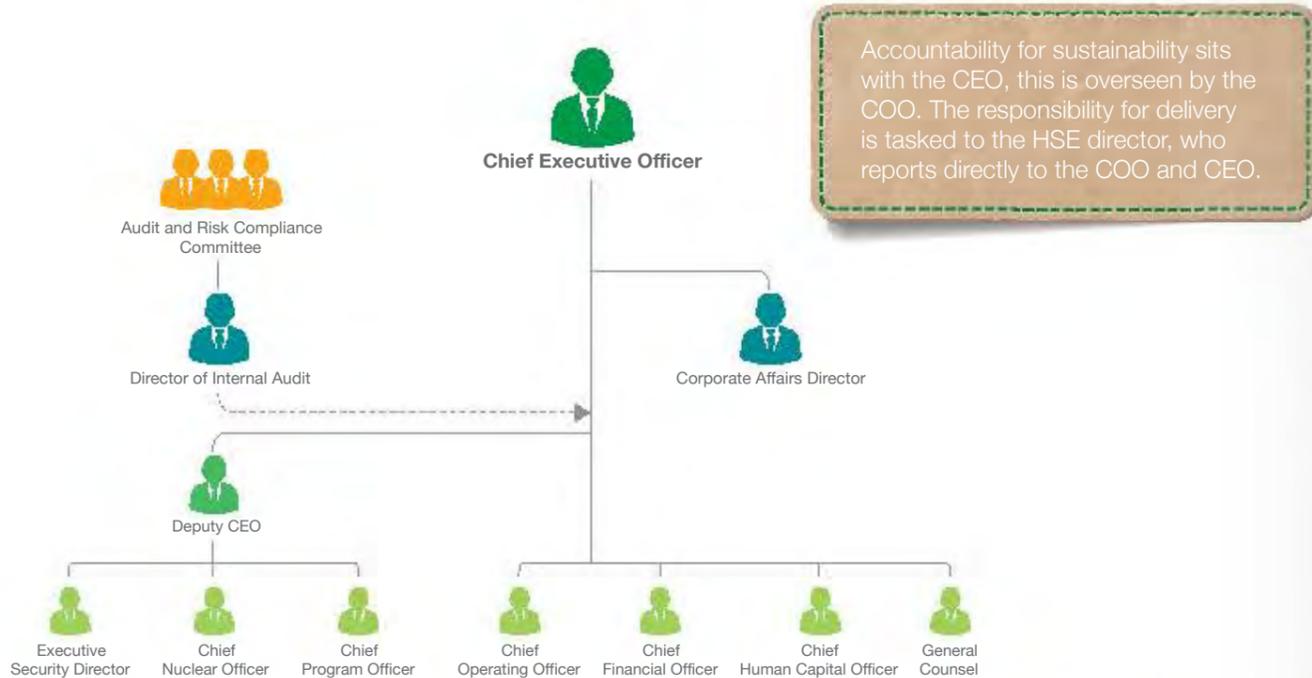
The ADAA, as well as ENEC's regulators, conduct periodic external audits as part of the Abu Dhabi government accountability structure. For further information, see www.ADAA.gov.ae.

2.2.4 Management Structure

ENEC's overarching strategy, executive direction and guidance for the corporation 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 corporation's three Strategic Goals that are: 1) Guarantee Project Delivery, 2) Ensure Operational Readiness, and 3) Support and Develop Capability. It builds on the key principles for good governance, empowering the corporation 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.



2.2.5 Business Principles, Ethics and Compliance

ENEC upholds the highest standards of business compliance and expects its employees and contractors to comply with its clearly stated approach to ethical business practices. A zero tolerance approach is taken to any and all forms of fraud or misconduct.

2.2.5.1 Compliance

As part of the ENEC compliance framework, ENEC maintains a compliance library for all government circulars, directives, national and international laws and treaties that apply to ENEC. As new laws, rules and regulations come into force, they are tracked through the compliance library and classified based on potential impact to ENEC. Risk based monitoring is in place to ensure on-going compliance.

In 2015, ENEC did not receive any monetary fines or sanctions related to non-compliance of any laws or regulations that apply to the corporation.



2.2.5.2 Code of General Business Principles and Ethics ("The Code")

The ENEC Code of General Business Principles and Ethics frames the ethical and legal practices that ENEC expects all employees and contractors to uphold. These standards reflect ENEC's commitment to fairness, honesty and ethical business practices in the workplace.

The code covers topics such as workplace behavior, conflict of interest, confidentiality, gifts and entertainment, discipline, health and safety, bribery and corruption, market misconduct, and the reporting of incidents. The full text of the Code of General Business Principles and Ethics (GBPE) can be accessed online.

Every employee must read, acknowledge and sign the Code when they join ENEC; this is a mandatory process. Every year, employees participate in annual Code of Conduct training and complete a certification agreeing to comply.

In keeping with the spirit of the Code, General Counsel is committed to provide corporate governance and ethics training to the Board and executive committee members as required. As part of this ethical commitment, ENEC senior management are required to disclose and identify any conflicts of interest they may have. These disclosures are managed in a Conflict Register by the Compliance department.

In 2015 following an audit by Abu Dhabi Accountability Authority (ADAA), recommendations were provided for amendments to the Code. In conjunction with a periodic review by General Counsel and the Compliance Manager, these changes are being implemented. These changes included alignment of the Code with international best practice, ensuring procedures were in place for conflict of interest management, and the handling of gifts.



2.2.6 Risk Management

The ENEC Enterprise Risk Management (ERM) Integrated Framework ensures that FANR's requirements regarding risk management are met and the audit requirements of the ADAA are satisfied. ENEC's ERM framework takes reference from the ISO 31000 Risk Management and Committee of Sponsoring Organizations (COSO) ERM standards and frameworks, ensuring ENEC consistently works to industry best practice.

The framework (Refer to Figure 3) outlines a three-dimensional approach, considering objectives and risk components at all layers of the corporation. Risk Objectives and Risk Components have been identified for Strategic, Operational, Financial and Compliance Risks with a corresponding control mechanism, which allows management to respond according to the particular risk.

The ENEC Board Directors have an oversight responsibility for the processes established to proactively identify, assess, manage, report, and monitor material risks to achieve the corporation's goals and objectives. ENEC's Executive Risk Management Committee (ERMC) functions as Risk Counsel for the corporation and its Board. The ERMC periodically reviews the top priority Executive Risks (threats and opportunities) within ENEC to ensure they are effectively managed and recommends any additional management actions required as well as reports the Top Priority risks to the Board to make informed decisions. It ensures existence and implementation of an appropriate framework and effective strategy to identify and manage risks within ENEC. It also provides oversight and ensures adequacy of the Enterprise Risk Management methodology, processes and performance to ensure it is meeting business requirements, in line with globally recommended practices and complying with regulatory standards and guidance. Finally, it interacts with other Executive and Government Committees on the subject of Enterprise Risk Management.



Figure 3: ENEC's Integrated Enterprise Risk Management Framework

In 2015, ENEC won the award for 'Building Risk Management Capability' at the Institute of Risk Management's (IRM) 2015 Global Risk Awards. The prestigious award recognizes the rigorous risk management process that is in place at ENEC.



Feeding into the risk matrix from the front line, ENEC has a group of Risk Champions working to embed risk management within the corporation's culture. Risk Champions are assigned within every department to support and facilitate ERM implementation and oversee the ongoing risk review processes in coordination with ERM Team. To enhance risk awareness, all employees are required to complete ERM General Overview Training.

2.2.5.3 Anti-Fraud and Misconduct

In 2015, ENEC initiated a Fraud Risk Assessment across the corporation with a key focus on procurement and finance. Over 100 potential fraud risks have been identified and all risks are being reviewed and managed by the relevant functions. A full review of the controls in place to mitigate each risk was undertaken in line with the ENEC Enterprise Risk Management system. Monitoring of mitigation actions will take place in 2016. As an additional preventative measure, ENEC has also conducted Fraud Training in 2015, with 25 additional workshops planned for 2016.

ENEC has a confidential Anti-Fraud and Misconduct Reporting Procedure in place, which allows reporting

through e-mails, a mailing system, Intranet (ENET), Internet (<http://www.enec.gov.ae/enec-anti-fraud-and-misconduct-reporting>) as well as 24/7 Toll-free Hotline. ENEC takes violations of the Code of GBPE seriously.

All reports are investigated and actions are taken immediately with the oversight of the Board ARCC. Any incidents reported in 2015 were received through one of the above mechanisms and have been investigated, reported and closed in accordance with ENEC's Anti-Fraud and Misconduct program. Any serious cases that require escalation are referred to the Board ARCC or to the Abu Dhabi police for criminal proceedings to take place.

Excellence

As one of its principles, ENEC has established a dedicated program to embed excellence across it's. Based on the European Foundation for Quality Management (EFQM) business Excellence Model and the model of the Abu Dhabi Excellence Award for Excellence in Government Performance, the program focuses on designing and implementing organizational best practices in order to improve performance.

ENEC has seen a dramatic improvement in this area, confirmed by receiving the Most Distinguished Government Entity Award at Abu Dhabi Award for Excellence in Government Performance (ADAEP) in 2015. The highly prestigious honor is awarded every two years, with feedback provided to the over 50 entities that apply.



ABU DHABI AWARD FOR EXCELLENCE in Government Performance - Our Performance

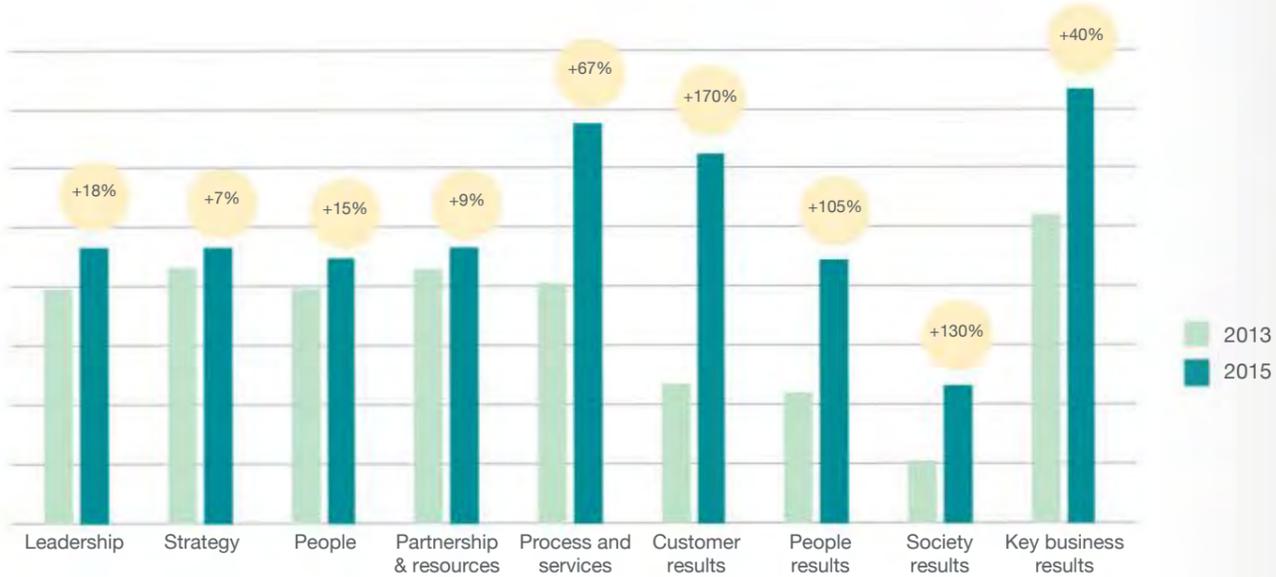


Figure 4: ENEC Performance in the Abu Dhabi Excellence Award for Excellence in Government Performance.

Based on the feedback provided, ENEC has demonstrated considerable improvement especially in the areas of customer, people, and society results. Room for improvement remains, and ENEC is now working to identify new opportunities for excellence.

To strengthen continual improvement efforts and to sustain a culture of performance excellence, every

two years ENEC runs its own internal excellence awards known as the Barakah Excellence Award. This motivates departments, project teams, and individuals to continuously strive for the highest standards in everything they do and improve ENEC's overall performance. The next cycle of the award will be in 2016.



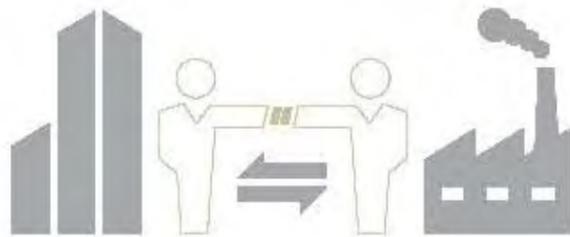
Stakeholder Engagement

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 the Barakah Nuclear Energy Plant program.

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 ENEC's 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.

ENEC's strategic approach to engaging its stakeholders has been recognized by the communication industry. In 2015, ENEC's External Communications team won the Bronze award in the Corporate Reputation and Image category of the Middle East Public Relations Association's annual awards, with an award entry titled 'Maintaining Positive Reputation for the World's Leading Nuclear Energy Site'.



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 energy 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. More detail on the stakeholder groups and how ENEC interacts with them can be found in Appendix B.

The corporation 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.

“

If you work for and eventually lead a company, understand that companies have multiple stakeholders including employees, customers, business partners and the communities within which they operate.

”

- Don Tapscott,
CEO, The Tapscott Group.

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 corporation's senior leadership team.

In 2015, ENEC hosted events in Dalma Island, Mirfa and Ghayathi in the Western Region of Abu Dhabi, which were attended by nearly 165 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 forums included APR-1400 design, 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. 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 Peaceful Nuclear Energy Program, as well as recruitment and scholarships.





Our stakeholders have asked us...

ENEC has responded that...

What will the UAE do with nuclear waste?

The UAE federal government is currently developing the policy for long-term storage, but ENEC will ensure that the disposal of solid radioactive waste will be completed in strict accordance with the UAE law, the regulations of FANR and the guidelines of the IAEA.

Why is the UAE continuing with a new nuclear energy program when some other countries have ended their programs?

Following the Fukushima Daiichi incident in 2011, countries such as Germany and Italy decided to end their nuclear energy programs, however other countries with established nuclear energy made the decision to continue. The UAE reviewed all the options and, like other countries such as the U.S., U.K. and France, decided to continue with its new nuclear energy build program.

Japan is now reviving its nuclear energy industry to meet its energy demand. Out of its 42 operable reactors, 24 are now ready to restart after the government took the decision to restart the first two in 2015.

ENEC and the UAE government are confident that the UAE Peaceful Nuclear Energy Program is the right choice for the country to meet projected energy demand and develop the local industry to ensure security of supply and diversity of the economy in to the future.

What is ENEC doing to encourage schoolchildren and students to become interested in careers in nuclear energy?

ENEC regularly participates in exhibitions and events around the UAE aimed specifically at inspiring children of school age to become interested in science and technology subjects.

Most recently ENEC was a lead sponsor and exhibitor at the Think Science fair in Dubai and Emirates Skills in Abu Dhabi.

For school leavers, ENEC offers a range of technical and degree scholarship programs for the brightest and most talented Emirati students to train in becoming the nuclear energy leaders of the future.

The UAE Nuclear Energy Program is of critical importance to the future of the UAE, and offers students an exciting and challenging career.

Since 2010, ENEC has held more than 21 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% in 2013 to 98% in 2015.

nuclear energy among the general population. Results have been positive and improving since opinion polls began in 2011, with 93% 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. The next opinion poll will be conducted in 2016.

In addition, ENEC also conducts periodic public opinion surveys in order to understand and respond to the level of support for

2.3.3 International and Industry Engagement

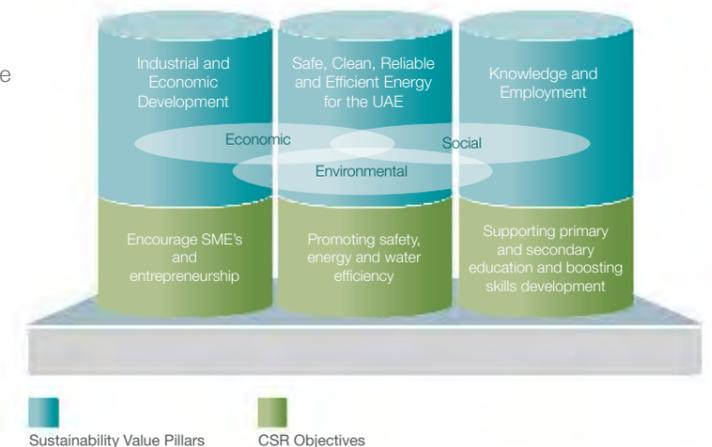
ENEC continues to engage extensively with industry bodies and attend both local and international events, in order to update stakeholders on the latest progress from Barakah and instill further confidence in the UAE's program in meeting the highest international standards of safety, quality, and security.

Some of the key engagements from 2015 include:

- The ENEC Chief Executive Officer, Mohamed Al Hammadi was appointed as the newest member of the **WANO** Atlanta Centre (AC) Governing Board. The AC is one of WANO's four key regional centers worldwide and Mohamed Al Hammadi's appointment follows a unanimous vote at the Governing Boards Meeting in June 2015.
- An **IAEA** delegation of 10 senior experts, praised the UAE's progress on developing a regulatory framework for nuclear and radiation safety following a nine-day mission to the country.
- Hosted 25 delegations to site
- Participated in six IAEA- led training courses and workshops
- In 2015 there were two International Advisory Board Meetings; one held in Abu Dhabi and one at the Barakah Plant, attended by the members of the IAB and ENEC representatives.

2.4 Corporate Social Responsibility

ENEC is focused on investing in corporate social responsibility (CSR) programs that deliver tangible positive impact on the community. The Sustainability and CSR Working Group (WG) has created a CSR framework that aligns with the sustainability value pillars, and sets clear criteria to support the WG in selecting CSR programs for investment.



The framework sets out three major objectives for ENEC's CSR program moving forward; to encourage Small Medium Enterprises (SMEs) and promote safety, energy and water efficiency, and to support primary and secondary education and boost skills development. In 2015, the WG shortlisted a number of CSR initiatives that it will consider and implement in 2016.



Safe, Clean, Reliable, and Efficient Energy

Introduction

In preparation for the December 2015 United Nations Climate Change Conference (COP21) in Paris, all countries from the around the world submitted plans on how they will tackle climate change and reduce greenhouse gas emissions. This has increased international focus on the diversification of energy portfolios. Each country is responsible for its own strategies, with the UAE pledging to increase its clean energy contribution to the total energy mix from 0.2% in 2014, to 24% by 2021. A large part of this commitment will be achieved through the activation of the UAE's Peaceful Nuclear Energy Program.

Nuclear energy is a sustainable source of electricity, meeting the country's economic and environmental requirements while benefitting national development. It is efficient and reliable, utilizing high-performing technology capable of producing significant volumes of electricity from a very small amount of fuel. It also has environmental benefits, with nuclear energy plants emitting virtually zero carbon emissions during operation.

Safety remains the overarching consideration with regards to nuclear power globally, and advances in nuclear technology as well as the ongoing elimination of the potential for human error means that the risk of an accident occurring is low and declining as confirmed by the WNA.

ENEC has made safety its overarching priority and is working together with other nuclear power operators, nuclear contractors, and NGOs to ensure the latest benchmarks in safety considerations are incorporated into the UAE's nuclear energy program. Safety is at the core of ENEC's decision-making process and has

influenced decisions throughout the project, from site selection incorporating seismic concerns, to using the best available reactor technology, from triple quality checks during construction, and simulator based training commencing years before beginning operation.

ENEC is working to deliver this new source of safe, clean and abundant energy to the UAE, while meeting the country's growing demand for electricity. In 2017, ENEC's first reactor will begin delivering safe nuclear electricity to the national grid, providing the energy required to power the country's current and future homes and businesses. Before then, safety, health, security, environmental and quality standards are all vital components in the construction of the plant.



Safe, Clean, Reliable, and Efficient Energy for the UAE; Sustainability Objectives

- **Safety and Security:** 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 and Security.
- **Environmental Management:** adhere to the highest available standards and regulations while working to prevent pollution, preserve biodiversity, conserve water and energy resources, and handle waste effectively.
- **Health and Wellbeing:** safeguard the health and wellbeing of all employees, contractors and the local community.
- **Quality, Efficiency, and Reliability:** achieve operational excellence and the implementation of industry best practices from around the world.

Health, Safety and Environment (HSE) Management System

ENEC ensures that the corporate level activities, through to the construction program, are being managed to the highest health, safety, and environmental standards. The Health, Safety and Environment Management System (HSEMS) has been in place since 2010, and is being continually updated and revised depending on new and emerging risks. The system is both OHSAS 18001 and ISO 14001 accredited, meaning that ENEC has applied the highest international safety and environmental standards. The HSEMS is compliant with Abu Dhabi level requirements and approved by OSHAD. In order to ensure continued understanding and implementation of the HSEMS, ENEC conducts awareness sessions for employees and contractors both in Abu Dhabi and at the Barakah site.

In efforts to improve progress towards sustainable development, the ENEC HSEMS Manual was updated in 2015 to better align with the OSHAD System Framework (SF) and a comprehensive internal assessment to fully incorporate all FANR requirements. As a result, ENEC has reviewed and updated its critical HSE procedures and Codes of Practices (CoP). Comparing HSEMS processes

with those of Abu Dhabi EHSMS and FANR requirements provided a basis to identify opportunities for enhancing management controls and safety performance. The HSEMS will be updated to manage new and emerging risks following assessment of work place practices and activities.

Throughout the construction at the site, ENEC is responsible for the oversight of KEPCO. 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 (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 KEPCO to ensure they meet project requirements.

Safety and Security

The safety and security of staff, contracted employees, site, and community are of paramount importance to ENEC. Every effort is in place to ensure occupational safety and security at corporate and construction locations, as well as prepare for the safety and security requirements of nuclear material arriving into the UAE. Safety and security don't only cover prevention, but also emergency preparedness and business continuity should a minor or major emergency event occur.

ENEC believes that safeguards, security, and safety regimes should complement each other. This thinking has shaped our nuclear safety practices, leading us to launch an Integrated Safety, Security and Safeguards Policy in 2015. This policy helps us to comply with a number of national and international requirements in the areas of nuclear safety, security, and safeguards.





3.2.1

Safety at ENEC

Safety is the overarching priority for ENEC. The highest standards of safety are applied throughout all levels of the corporation to support the development of a healthy nuclear safety culture and ensure a systematic approach. In 2015 the Executive Management Safety Charter was established to drive high-level safety compliance and performance. The objective of the charter was to guide the CEO and Executive Management in supporting and enabling ENEC and its Operating Companies to operate its businesses safely. All quarterly executive management meetings conform to this charter.

2015 also saw the implementation and success of the Senior Management Safety Observation Program, which is a proactive Behavior Based Observation Program for improving safety culture as well as supporting strategic goals and ensuring executive management involvement in leading safety in ENEC.

In 2015, some 7,844 safety observations (safe and unsafe observations) were made. 2015, also recorded a 6% increase in unsafe observation from the preceding year.

Each and every employee at ENEC receives annual training on ENEC's safety principles and procedures, and our leadership encourages our employees to voice any queries so to ensure performance and safety standards are continuously improved. All meetings at ENEC begin with a Safety Moment, so ENEC employees remain safety conscious at all times.

To date ENEC has conducted more than 7,500 dedicated safety trainings, where attendance has exceeded 250,000.

ENEC also conducts regular safety self-assessments and safety audits. The corporation 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 have responsibility to stop work activities where an existing or potential threat to safety is observed.



ENEC management's commitment to establish and maintain a Culture of Safety is founded on the INPO 'Traits of a Healthy Nuclear Safety Culture' (reference number 12-012), which outlines the core values and behaviors necessary to keep safety as the top organizational priority at all times. These behaviors and attitudes 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

ENEC has established participation in an international peer review of nuclear reactor safety practices by subscribing to industry-financed organizations like the INPO and WANO.

Occupational Safety

Robust safety programs are designed for both ENEC staff at the corporation's Abu Dhabi HQ, as well as for the thousands of employees, contractors and subcontractors, from ENEC, KEPCO and KEPCO's subcontractors working at Barakah.

With construction commencing on the fourth unit at Barakah, ENEC has four sites where construction is going, simultaneously and thus there has been a significant increase in the number of people (ENEC, contractor and sub-contractor) working on-site. In 2015, over 20,000 people were working on the project, which

is a 17% increase from 2014. Despite the increase in work-hours and project activities, ENEC together with its contractors and subcontractors successfully managed its operations without any fatalities in 2015.

The total recordable case frequency rate (TRCFR) for ENEC employees has decreased due to concerted efforts in increasing HSE awareness among employees through initiatives such as toolbox talks, increased education about safety and site inspections by CPO HSE. TRCFR for contractor and subcontractor employees has decreased by 8%.

Safety			
	2013	2014	2015
Number of ENEC employees	902	1,372	1,574
Number of contractor and subcontractor employees	11,886	16,997	19,885
Fatalities	0	0	0
LTIFR (ENEC employees)	0.67	0	0.81
LTIFR (contractor and subcontractor employees)	0.32	0.35	0.14
TRCFR (ENEC employees)	3.34	2.17	1.61
TRCFR (contractor and subcontractor employees)	4.15	3.37	3.49

*LTIFR and TRCFR are calculated per million man hours

ENEC did experience one lost time incident (LTI) due to an ENEC employee trip and fall, which occurred during a team building exercise. This means the employee lost-time injury frequency rate (LTIFR) has risen from zero, to 0.81 in 2015. There was a recognizable reduction in LTIFR for contractor and sub-contractor employees in 2015. This achievement is mainly due to improved site-supervision, HSE training and awareness, HSE Governance assessments and inspections, and management involvement and support.

“

Tomorrow - your reward for working safely today.

- Robert Pelton,
Author, journalist and documentary filmmaker.

”

Working with Contractors

ENEC is closely working with KEPCO and their sub-contractors to continually improve HSE standards and performance. ENEC has implemented a number of management controls to ensure contractors are updated with ENEC's HSE policies:

- Every two weeks the Senior Management at the site conduct a walk down to observe site safety using a checklist.
- Weekly HSE meetings/close of actions
- Overseeing/assessing the quality of HSE training through feedback system
- Taking part in the investigation of high-potential incidents
- Conducting joint HSE assessments (Fire Hazard Assessment, HAZMAT Assessment etc.)
- Conducting Governance/Oversight HSE Assessments

During 2015, two major workshops titled "Incident Prevention program" and "Lock Out Tag Out (LOTO)" were conducted between ENEC, KEPCO and the major subcontractors. The incident prevention multi-stakeholder workshop captured all the root causes of incidents, which took place on-site, to identify ownership and enforcement activities of safety requirements by execution entities. It was determined that construction teams and material management teams, among others, were the main cause of incidents at Barakah. The second workshop was focused on identifying control measures that will manage simultaneous operations between constructions and commissioning teams. Both workshops resulted in action plans that were agreed by all parties and implemented, leading to a considerable decrease in incidents.

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. Critical Infrastructure and Coastal Protection Authority (CICPA) is the Abu Dhabi Government agency tasked with handling the protection and security of the Emirate's vital assets and infrastructure, to include Barakah. Under the regulation of FANR and with guidance from the IAEA, ENEC and CICPA work together to develop and implement the highest international standards of safety and security for Barakah.

As a requirement to submit the Construction License Application (CLA) ENEC submitted a Physical Protection Plan (PPP) for Construction, which outlines the physical protection measures and processes for units under construction until fuel load. The construction specific PPP addresses protection of nuclear materials and the nuclear facility against malicious acts, such as the unauthorized removal of nuclear material.

Physical Protection Plan - Operations (PPP-O) is under revision to comply with the requirements of the operating license for Units 1 & 2. The PPP-O will address organization and staffing, physical protection including the designation of protected areas and vital areas, guard training and qualification, information security, cyber security, and responses to security contingencies including consideration of concurrent nuclear safety related emergencies and security threats. The PPP-O provides high assurance that the physical protection strategies will neutralize an adversarial threat, up to and including the design basis threat, ensuring that the nuclear facility is protected from malicious acts and radiological sabotage.

Emergency Preparedness

Due to the complex and extensive construction program underway at site, alongside ENEC's preparation for future nuclear operations, emergency preparedness is an intrinsic part of ENEC's approach to safety and security. The corporation has developed and implemented a comprehensive emergency preparedness and response program that defines clear roles, responsibilities and control in the unlikely event of an emergency situation at the Barakah Nuclear Energy Plant. The program covers office and site specific emergency activities, deployment of first responders, emergency equipment, training and awareness.

Whilst the plant is still under construction prior to operations, KEPCO maintains the Barakah Emergency Operation Center that provides coordination between KEPCO and onsite Emergency Response Organizations (ERO).

ENEC has a Crisis Management program that covers functions across the Barakah site, and its Headquarters, that monitors any developing situations and responds accordingly to regulatory compliance.

At Barakah site Emergency drills are practiced at periodic intervals to test the effectiveness of ENEC's emergency management procedure. The corporate functions are included in these exercises.

A lot of effort was put in 2015 to improve the resilience of office emergency preparedness and response setup. Numerous training and awareness sessions were conducted with emergency responders, i.e. floor wardens, security guards, and contracted support staff. Close liaison and interaction was established with Facility Management who actively supported and facilitated ENEC emergency evacuation exercises and provided training to ENEC responders on general fire safety and emergency response. Communication and co-operation with internal responsible stakeholders was improved which helped to achieve and rectify long-term issues with life safety systems and equipment. All

these achievements along with strategic planning and integration of necessary support and resources helped to comply with all regulatory requirements on emergency training and exercises.

ENEC has established its Emergency Response Organization (ERO) for when the plant is operational. A comprehensive training program for ERO members was delivered in 2015. This training was designed to provide position specific training for every ERO member and included several desk based exercises and Integrated Facility Drills. During November 2015 a drill was conducted for Offsite Stakeholders and on the 15th of December, an Integrated Onsite and Offsite drill was conducted which included the participation of the Offsite Stakeholders.

As the first unit begins preparation for operation, ENEC has developed an Onsite Emergency Plan (OEP). The OEP embraces 16 Emergency Planning Standards and briefly describes how each standard will be addressed. Information is also provided on how to declare emergency classification levels, communicate with offsite officials, warn the public and take actions to prevent or mitigate incidents. Emergency Preparedness Implementation Procedures (EPIPs) are developed to support implementation of the OEP and ENEC's dedicated ENEC's Emergency Response Center (ERC) is now complete. The facility has been constructed remotely from the site, outside of the emergency-planning zone.

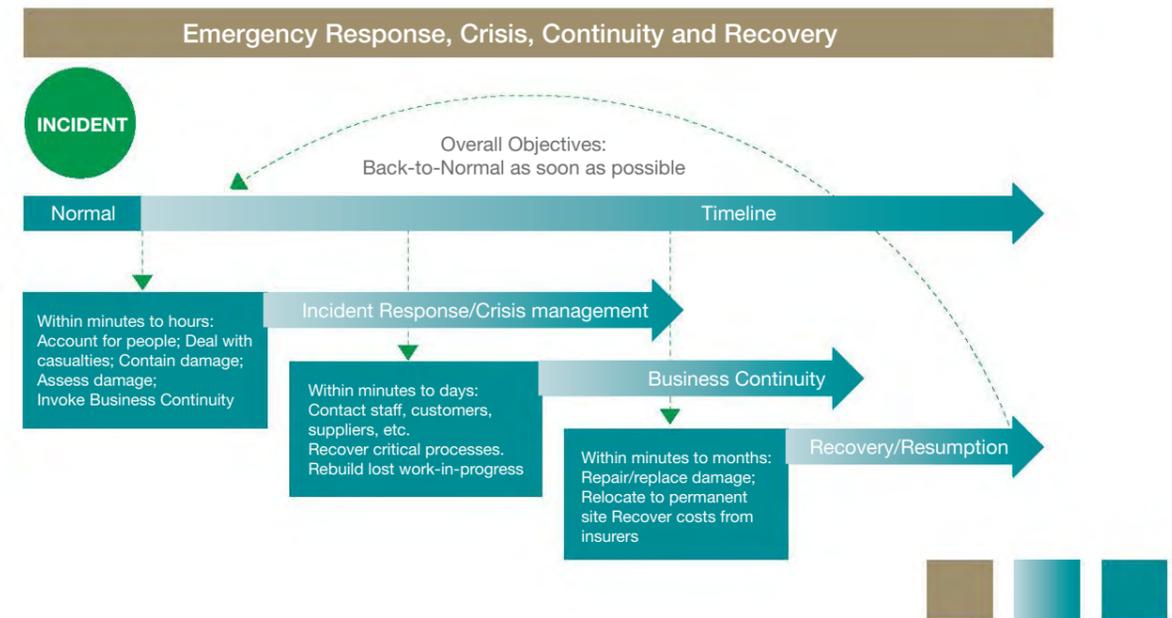
The OEP will be tested regularly and, in line with FANR regulations, residents living in a 16-kilometer radius of the site will receive regular information and training on what to do in the unlikely event of a declared emergency event. It is ENEC's duty to ensure all residents and site personnel fully understand their required actions in response to a potential emergency at the Barakah plant.

Business Continuity Program

Business Continuity plays an important role in ensuring the corporation has the necessary processes and procedures in place to continue operation and maintain essential services in case there is a sudden event, which halts or disrupts normal business operation.

ENEC established its Business Continuity Management (BCM) Program in 2010. The Program was certified to BS 25999, the British BCM Standard, in 2012 and to ISO 22301, the International BCM Standard, in 2014. In addition, ENEC's BCM Program has been in compliance with AE/SCNS/NCEMA 7000, the UAE National BCM Standard, since 2014.

The BCM Program is designed to maintain essential and time-sensitive business processes first and then proceed with the resumption of those that are not as time-critical. Once the operation of essential business functions is complete, the use of the primary site is restored and is followed by a return to business-as-usual. ENEC's BCM Strategy follows a multi-phased approach, which includes alignment and integration with recovery of ICT systems and applications. ENEC is presently enhancing its BCM Strategy through the addition of BCM criteria to pre-qualify its suppliers, this new BCM requirement in new and contracts under renewal, includes a survey of existing suppliers to measure the presence of business continuity in the supply chain.



ENEC's BCM Program, plans and arrangements are not considered reliable until tested, exercised and determined to be fit-for-purpose. To accomplish this, ENEC has developed a comprehensive BCM Exercise Roadmap to ensure it has the strategies, plans and procedures in place to meet its business continuity objectives.

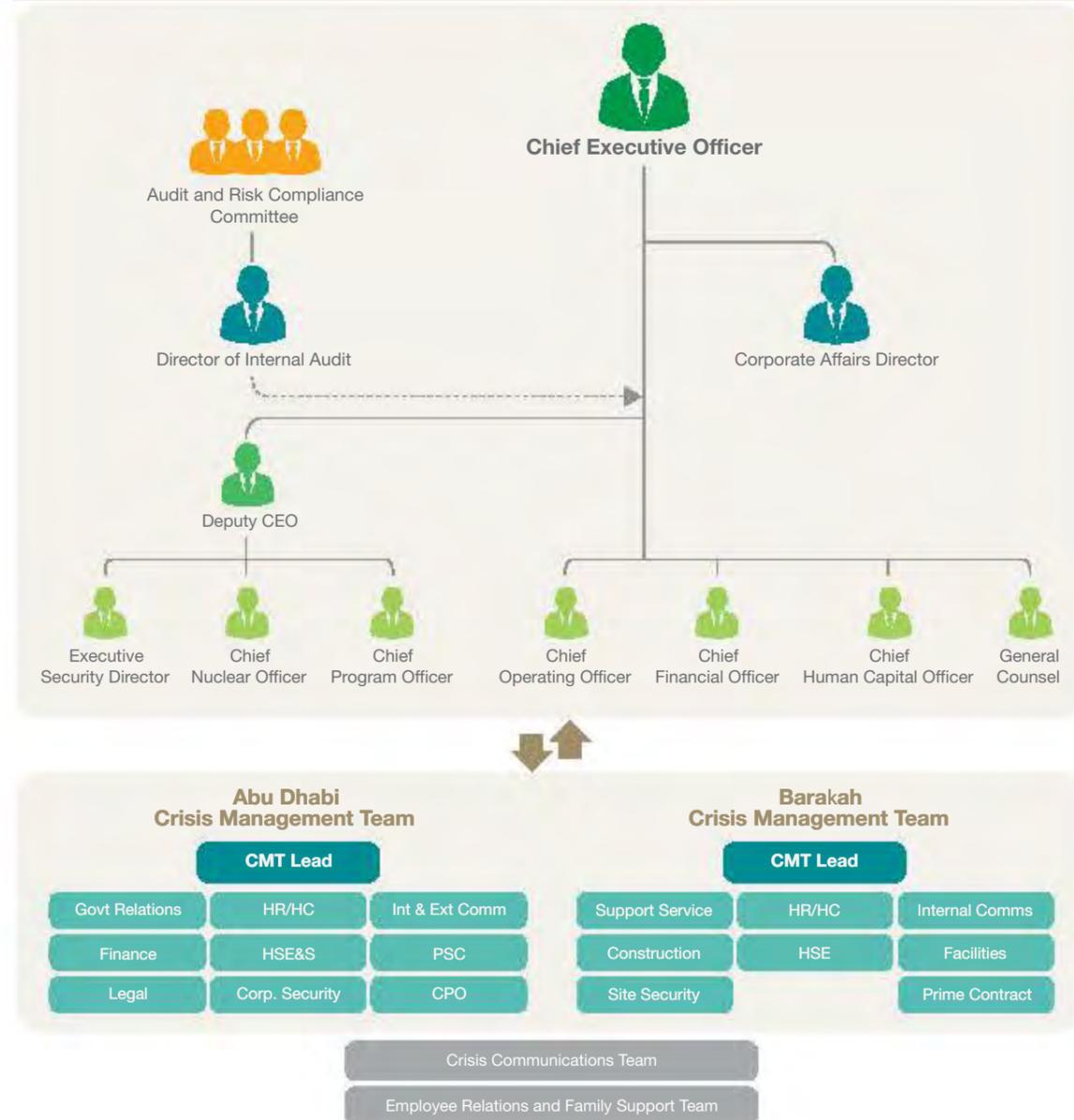
The roadmap is designed to develop teamwork, competency, confidence and knowledge across departments and their Business Continuity teams in a manner that supports the achievement of key project milestones, including Fuel Receipt and Fuel Load.

In addition to the BCM Program, ENEC also has a Crisis Management (CM) Program. The purpose of its CM Program is to ensure the oversight and coordination of activity across the enterprise in managing events that impact ENEC sites, business and operations.

ENEC's CM Program began in 2011 with one team for the Corporate Headquarters in Abu Dhabi. In 2015 the

Program was expanded to include four new teams. This includes an Executive CM Team (CEO and direct reports), a CM Team for the Barakah Site (representatives from construction and support services), and two additional teams to support the HQ and Barakah CM Teams. One team specializes in Crisis Communications. The other specializes in Human Relations and Family Support.

Organization chart



3.3

Environmental Management

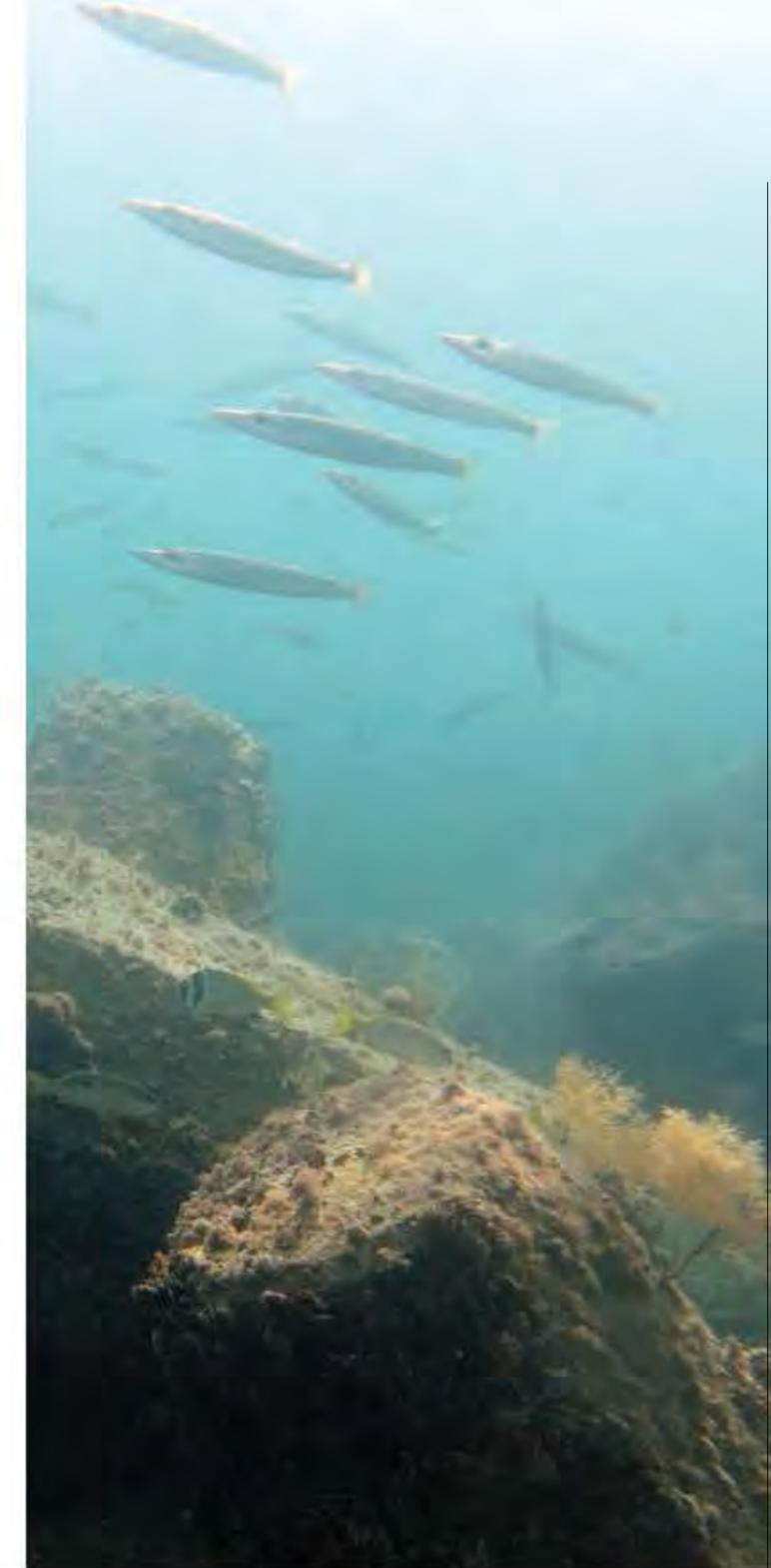
It is ENEC's responsibility to ensure that once operational, the Barakah follows environmentally sustainable practices in its lifetime, having minimal impact on the environment it operates in. ENEC's approach to environmental management ensures it remains to the heart of ENEC's program.

Environmental considerations played a crucial role in the selection of Barakah as the site of The Barakah Plant. Before construction of the plant commenced, ENEC conducted an extensive Environmental Impact Assessment (EIA) gathering baseline data on the environmental state of the area and its surroundings. Utilizing this, a Construction Environmental Management Plan (CEMP) was developed and approved by the regulator, EAD, and is now being implemented at Barakah.

ENEC's commitment to the environment is also pursued by its contractors and subcontractors, the Barakah Environment and Sustainability Charter was co-signed by ENEC and KEPCO. The charter sets out a series of obligations to ensure that environmental protection, habitat preservation, water and energy conservation, and sustainable waste management best practices are consistently applied at Barakah.

Monthly monitoring and reporting of environmental performance is completed in accordance with EAD permit conditions and national environmental regulations. ENEC continues to conduct environmental assessments at both the plant 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. 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.

Waste creation, waste disposal and dust have the most significant environmental effect during the program's current construction phase. In addition to an increase in construction personnel and activities in 2015 at Barakah, there has been a significant increase in the consumption of resources, including construction materials, water and energy. ENEC continues to work together with KEPCO to minimize the impact of this as much as possible. In 2015, ENEC 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.

Planning is currently underway to ensure that ENEC is prepared for the environmental management requirements for plant operations. ENEC is developing an Operational Environmental Management Plan (OEMP) in compliance with EAD-issued environmental permit requirements, federal regulations and international nuclear energy standards.

Materials Usage and Waste Hierarchy

The Barakah nuclear energy project is in its construction phase and it requires significant volumes of materials for the construction of the plant to meet the requirements of regulators and ensure the highest standards of safety, quality and performance. Nuclear-grade concrete and steel are the primary materials being used, both of

which are necessary to create a safe and secure facility. In 2015, consumption of concrete decreased by 5% and steel has increased by 48%. With Unit 1 and Unit 2 nearing completion, consumption peaked in 2014, and is now expected to decrease as the remaining units are developed and eventually construction is finalized.

Materials Used			
	2013	2014	2015
Concrete used in construction (cubic meters)	520,427	614,935	584,680
Steel used in construction (metric tons)	35,280	38,489	56,900

Given the scale of the project of this scale, a significant volume of waste material is generated during the construction process; therefore, ENEC has developed and implemented a comprehensive waste management program.

The types of waste ENEC is currently generating include municipal waste and construction waste produced on

the Site. ENEC is planning to track all waste streams to ensure chain of custody, and volumes are monitored against planned targets. The amount of solid non-hazardous waste generated peaked in 2014, as a result of the scaling-up of project construction in this time period. Construction activities will peak again in 2016 and the waste generation rates will reflect this.

Waste			
	2013	2014	2015
Non-hazardous waste disposed (metric tons)	25,530	62,394	89,930
Non-hazardous waste recycled (metric tons)	2,916	11,585	18,817
Percentage of total non-hazardous waste recycled	10%	16%	17%
Hazardous waste disposed (metric tons)	80	19	0
Hazardous waste recycled (metric tons)	54	12	0
Percentage of total hazardous waste recycled	40%	39%	NA
Wastewater disposed (liters)	4,175,800	301,947,780	397,867,596
Wastewater recycled (liters)	814,766,000	940,044,000	1,470,318,000
Percentage of wastewater recycled	100%	76%	79%
Hazardous liquid waste disposed (liters)	0	0	0
Hazardous liquid waste recycled (liters)	17,820	24,380	21,900
Percentage of hazardous liquid waste recycled	100%	100%	100%

The majority of solid non-hazardous waste produced during construction is stored in an on-site transfer station before being disposed in an existing offsite landfill. A total of 17% of the waste is now being diverted from landfill to be recycled; a steady increase from previous years as ENEC works with KEPCO to identify new ways to recycle various waste streams.

Solid hazardous waste is being temporarily stored on-site due to the unavailability of a certified contractor. ENEC is in discussions with the Centre of Waste Management (CWM) to retender its waste management services, and in 2016, when these facilities become available, there will be information on hazardous waste disposed and recycled. As a result, hazardous waste disposed and recycled is recorded as zero metric tons for 2015.

With regards to liquid waste, 79% of wastewater is being recycled or reused including in the irrigation of the green areas on-site. Hazardous liquid waste is 100% recycled and mainly includes oils that are cleaned and reused by a third party contractor.

To reduce the production of waste, and to increase recycling rates, ENEC and KEPCO continue to implement the following initiatives:

- Campaigns to minimize the use of materials and resources within the construction site and thereby reduce the quantity of waste being generated.
- Deploying additional resources to facilitate the separation of disposed materials within the construction site and thereby aid recycling.
- Workshops to review generation rates and identify potential areas for improvement in performance.

In the future, once the plant becomes operational, radioactive waste will become an issue of national and regional importance. Short-term storage plans are already in place for low and medium-level radioactive waste. ENEC is currently working with relevant national regulators and government officials to finalize long-term plans for the future storage, disposal and repurposing of spent nuclear fuel rods.



Energy and Water Management

Significant amounts of energy and water are required in the construction of a nuclear energy plant and ENEC works closely with its partners to ensure these resources are consumed as efficiently and responsibly as possible. Regular awareness campaigns are conducted throughout corporate offices and on-site to encourage a culture of effective resource management.

Ancillary buildings constructed directly by ENEC have been built in accordance with Pearl 2 Estidama sustainable building codes. This means smart and efficient resource consumption has been integrated into the design, construction and operation of the buildings.



Energy Consumption

Direct energy is used in the form of fuel for the operation of heavy machinery and vehicles for construction activities and transportation. Indirect energy is used in the form of electricity and is sourced from the national grid for lighting, power for equipment and ancillary buildings in and around the site.

In real terms, total energy consumption increased by 33% in 2015, reflecting the increase in construction activities,

and the growth in ENEC as a corporation. Taking this into account and looking at energy consumption from an intensity perspective, the energy intensity increased by 14% in 2015. To put this into perspective, the combined total energy consumed in 2013, 2014 and 2015 equals 1,066,116 GJ, which is equal to 23% of the annual output of one of the nuclear energy units once it is operational.

Energy	2013	2014	2015
Fuel used on-site (liters)	470,800	1,108,872	1,233,904
Fuel used Abu Dhabi (liters)	185,493	499,760	686,023
Total direct energy (liters)	656,293	1,608,632	1,919,927
Electricity used on-site (kwh)	62,244,570	96,353,207	117,380,507
Electricity used in Abu Dhabi (kwh)	824,012	1,731,535	13,422,776
Total indirect energy (kwh)	63,068,582	98,084,742	130,805,298
Total energy (GJ)	229,410	358,896	477,811
Total energy intensity (GJ/person)	18	20	22

Water Consumption

Fresh water is sourced from the Shuweihat Desalination Plant and used primarily in the mixing of concrete, as well as in accommodation and other ancillary buildings. Grey water utilized for irrigation and dust suppression is obtained from the on-site treatment of sewage to standards set by the Regulation and Supervision Bureau (RSB) and verified by monthly laboratory testing.

There was a significant increase in total water consumption in 2015 due to the increase in construction activities. From an intensity perspective, consumption per person has also increased by 90%. ENEC is tracking its water consumption and putting in place targeted environmental programs to manage this increase.

Water Consumption	2013	2014	2015
Water consumed (On-site and Abu Dhabi) (cubic meters)	1,232,305	5,310,939	11,803,930
Water intensity (cubic meters/person)	Not Available	289	550

With regards to the impact of construction on water sources, surface water is predominantly affected by effluents, dredging and excavation activities. As rainfall is infrequent, ENEC doesn't expect storm water runoff and the associated sediment loads to be a concern at the Barakah units however, daily inspections are undertaken during periods of rainfall to assess this issue. Water quality impacts due to dredging are considered temporary and reversible.

The potential impact to ground water during the construction phase is from effluents as no water is being extracted at Barakah. ENEC has taken measures to implement site grading and permanent building foundations to reduce the surface area that is currently available for infiltration at the site. It is therefore expected that infiltration and subsequent impact on groundwater is minimal.

GHG and Air Emissions

Nuclear energy currently produces 11% of global electricity, and is one of the largest sources of low-carbon power. Globally, nuclear energy avoids over 2 billion metric tons of GHG emissions from being emitted into the atmosphere each year³. According to the World Energy Outlook 2015, published by the International Energy Agency (IEA), nuclear energy has helped to avoid the release of the equivalent of two years worth of CO₂ emissions from carbon-producing energy sources since 1971.

The low carbon benefits of a nuclear energy plant once operational are clear; construction however is an energy

intensive operation that results in high level of carbon emissions in the short term. The bulk of the GHG emissions currently generated by ENEC's program are classed as Scope 3 emissions, defined as indirect emissions arising from the activities of suppliers, materials purchased, or business travel. In 2015, ENEC Scope 1 emissions have increased by 17%, Scope 2 emissions have increased by 33% and Scope 3 emissions have increased by 11%, owing to increased construction activity at Barakah. The total increase in GHG emissions is 16%, which is a relatively low increase compared to the preceding years, while Barakah is still in the construction phase.

³<http://www.world-nuclear.org/information-library/current-and-future-generation/world-energy-needs-and-nuclear-power.aspx>

GHG Emissions*			
	2013	2014	2015
Scope 1 - fuel use on-site (metric tons CO ₂ -eq)	1,069	2,738	2,973
Scope 1 - fuel use in Abu Dhabi (metric tons CO ₂ -eq)	421	1,135	1,558
Total scope 1 (metric tons CO ₂ -eq)	1,490	3,873	4,531
Scope 2 - electricity on-site (metric tons CO ₂ -eq)	36,656	56,742	69,125
Scope 2 - electricity in Abu Dhabi (metric tons CO ₂ -eq)	485	1,020	7,904
Total scope 2 (metric tons CO ₂ -eq)	37,141	57,762	77,029
Scope 3 - emissions from bus travel (metric tons CO ₂ -eq)	239	239	212
Scope 3 - emissions from concrete and steel (metric tons CO ₂ -eq)	184,395	196,385	223,271
Scope 3 - emissions from air travel (metric tons CO ₂ -eq)	Not available	9,456	5,533
Total scope 3 (metric tons CO ₂ -eq)	184,634	206,081	229,017
Total scope 1, 2 and 3 GHG emissions (metric tons CO ₂ -eq)	223,265	267,716	310,577
GHG emissions intensity (metric tons CO ₂ -eq/person)	17.5	14.6	14.5

*All GHG emissions are presented in metric tons CO₂-eq 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).

* 2015, we have adjusted our calculations for Scope 3 –emissions from concrete and steel and air travel.

In addition to GHG emissions tracking, background air quality monitoring of NO_x (Nitrogen Oxides), SO_x (Sulphur Oxides), 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. Monitoring is conducted and quarterly reports are submitted to the EAD for their review.

In 2015, 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 attributed to prevailing climatic conditions. There is currently no assessment undertaken, at emission sources of direct NO_x, SO_x, PM10 or Ozone air emissions.

Biodiversity Impact

ENEC understands the importance of the natural environment. Alongside the EAD, ENEC actively monitors environmental impact and is ensuring mitigation measures are agreed and deployed to negate any potential negative impacts.

The Barakah site was selected specifically to minimize the environmental effect on sensitive areas, designated as marine preservation areas, and flora and fauna reserves. Additionally, ENEC has implemented a number of design modifications to the plant, to meet the regulations of the EAD and adapt to the UAE's climate conditions.

A marine ecological survey completed in 2009 has provided a baseline mapping of the marine habitat, identifying flora and fauna including marine mammals and reptiles. A number of these animals are listed as vulnerable or endangered such as the dugong, Indo-Pacific bottlenose dolphins, and Indo-Pacific humpback dolphins, in addition to Green and Hawksbill turtles. The low seagrass coverage in the project vicinity would indicate that it is not a major feeding, sheltering or nesting

area for marine life, yet ENEC will continue to monitor their presence.

As with any new development, ENEC does expect some environmental impacts from the plant operations and is working with Abu Dhabi government to mitigate any effects. ENEC's EIA has identified limited coral communities within the vicinity of the site that may be impacted from cooling water discharges to the Gulf once the plant becomes operational. The thermal plumes generated by these discharges are not anticipated to impact any marine protected areas.

ENEC completed the development of the Barakah Artificial Reef project in 2014. This will provide additional shelter for marine life and encourages biodiversity before the plant becomes operational. It 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. In 2016, ENEC will conduct some detailed studies on the success of the artificial reef.





3.4 Health and Wellbeing

ENEC takes the health and wellbeing of its direct employees as well as its contracted and subcontracted employees very seriously.

This involves the implementation of a comprehensive medical screening program, occupational health program, as well as the promotion of individual actions that will encourage employees to lead a personal healthy lifestyle. Mechanisms for reporting and addressing grievances are also a key part of ensuring individual wellbeing.

3.4.1 Health of Employees and Contractors

ENEC has an established Occupational Health Risk Assessment (OHRA) that identifies the hazards in the corporation's working environment with the associated occupational health risks for each job category. This system allows ENEC to quantify the effect of an unmanaged occupational health risks on employees. The OHRA ranks the job categories from high risk to low risk.

ENEC maintains an annual Health Program that facilitates the on-going development of health related codes of practice to address these risks in a proactive manner. It is expected that ENEC's contractors and subcontractors deploy similar codes of practice to ensure that risks are identified and proactively avoided. In 2015, zero occupational health illnesses were recorded among ENEC's employees, contractors and subcontractors.

Occupational Health Performance	2013	2014	2015
Reportable occupational illness (employees)	0	0	0
Reportable occupational illness (contractors and subcontractors)	0	0	0
Heat stress incidents (employees, contractors and subcontractors)	31	34	32

3.4.1.2 Health Screening and Medical Surveillance

ENEC's health screening and medical surveillance program is mandatory for all employees and consists of a visit to an occupational health physician and completing a health history questionnaire to determine current medical issues and previous occupational incidents that may have resulted in a medical issue. A full medical is then completed with certain prerequisite examinations, followed by a job risk specific medical investigation.

The results and recommendations are then processed in a highly confidential manner to manage the individual's occupational health while under ENEC employment. Each employee will periodically undergo this assessment based on the occupational risks associated with their job category in order to conform to OSHAD & FANR statutory requirements and provide employees with a structured and a better-informed Workplace Wellness program.

3.4.1.3 Health Services

For health related issues that are not classed as occupational, first aid and medical health services are being provided at the Barakah site. A Health Services assessment was completed by ENEC in collaboration with International SOS to ensure these services are regularly inspected and assessed quarterly for conformation to all Health Authority Abu Dhabi (HAAD) standards, legislation and registration requirements.

First Aid boxes and Automated External Defibrillators have been located on each floor of all ENEC facilities. They are clearly identified on the emergency evacuation maps located at each exit of the respective location. A list of First Aiders, both male and female with their contact details, are posted next to each first aid unit specific to each location.

ENEC directly investigates or oversees into all health related incidents at ENEC office locations and Barakah (ENEC and contractor) locations, and uses the trending knowledge generated from these investigations to provide targeted awareness, including health and wellbeing programs and initiatives.

3.4.1.1 Heat Stress

Due to construction work being conducted around the year, including in high summer temperatures, heat stress has been identified as one of the highest occupational health risks. ENEC together with KEPCO and its subcontractors run extensive heat stress awareness campaigns to ensure employees remain hydrated and avoid potential heat-related incidents.

Considering there are over 19,000 workers on site, the number of heat stress cases is relatively moderate at 32 in 2015. The number of cases has remained steady over the past three years, increasing by 3% from 2013 to 2015 despite the workforce increasing by 68% in the same period.

3.4.1.4

Health and Wellness Initiatives

As part of the 2015 Health Program, ENEC completed a wide range of health and wellness related initiatives to raise awareness and action among employees. These included:

- 18 Food 4 Thought sessions - where Medical Experts from hospitals addressed ENEC employees in a structured awareness session accompanied with a healthy lunch to promote a questioning attitude in a networking environment.
- 39 Internal Newsletter Articles - sharing information and useful links on numerous health issues, including men's health, breast cancer awareness, eye health and precautionary measures to take while working in heat, informing ENEC employees on techniques to manage their health and monitor their risk factors.
- 2 Health Alerts - and related actions were developed and then published to all staff. One alert was on Emergency Response Equipment (First Aid Kits) and the second was about Medical Services at AlRuweis Hospital and Medical Centre. These alerts followed identification of a risk that warranted immediate action to inform ENEC employees of the related risks and how to effectively manage the issue in the future.
- 3 Health Events – where ENEC provided employees with an opportunity to have a one on one consultation with specialized physicians and undergo minor medical investigations and vital statistic monitoring and diagnosis. Such services include Flu Vaccination, health and fitness assessments and overall cardio-vascular and diabetes monitoring and diagnosis services.
- 11 First Aid Courses – hosted in Abu Dhabi and Barakah, training 138 First Aiders. The First Aiders were issued with an internationally recognized First Aiders registration, which is monitored by ENEC in order to refresh it every two years.

3.4.2

Workforce and Contractor Grievances

ENEC is committed to an open and transparent process where all grievances are dealt with fairly and in a timely manner. All 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.

The ENEC Condition Report (CR) system can also be used to escalate concerns or grievances within the corporation. These are inspected by FANR on a regular basis and monitored by ENEC according to established procedures. Furthermore, the Ministry of Labor has an office onsite at Barakah to directly address and oversee worker grievances. ENEC recognizes that feedback and input from workforce and contractors is valuable because it helps to enhance transparency and continuous improvement of ENEC's programs and processes.

3.4.3

Exposure to Radiation

The nuclear energy industry takes the safety and security of those who work at or live near its facilities very seriously. All nuclear energy plants, including ENEC's APR-1400, are designed and built to contain radiation, preventing any release of radiation to the public and environment. Since ENEC is not yet operational there is zero possibility of radiation exposure at this time, and ENEC is putting extensive measures in place and meeting strict federal and international regulations and standards to ensure zero harmful exposure once the plant is operational.

To ensure this is the case, ENEC has begun an environmental radiation-monitoring program in 2014 to ensure there are two years of baseline background data before nuclear fuel is received. The implementation of this program will receive approval from FANR, as well as international bodies such as WANO and the IAEA. The risk of a radiological event is addressed through emergency response planning, and is discussed further in the 'Emergency Preparedness' section on page 54.

3.5

Quality, Efficiency and Reliability

The nuclear industry maintains the most stringent quality standards in the world, reflected by ENEC's rigorous Quality Assurance (QA) program. This ensures 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 practice, operational efficiency, quality, and performance excellence, ENEC has achieved the following international accreditations:

International Accreditation
ISO 9001 Quality Management System Standard
ISO 14001 Environmental Management Standard
Standard of Excellence in Strategic Procurement Capability "Gold Certification" from the Chartered Institute of Purchasing and Supply (CIPS)
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
PAS 99: Integrated Management System

ENEC's Management System and QA program is applied to all aspects of the corporation, training sessions, and assessments. Audits are conducted on a regular basis to ensure that the program's high standards are being met and continually improved upon.

In 2015, ENEC conducted 54 audits (largely performance based) on all aspects of ENEC QA programs. This included 18 internal and 36 external audits. Further 9 audits / assessments were undertaken for Management Systems. To date, more than 40,000 work-hours have been dedicated to performing rigorous quality audits on all aspects of the program. In 2016, ENEC has planned for 30 internal and 26 external audits.

“ Nuclear energy, in terms of an overall safety record, is better than other energy. ”

- Bill Gates



Industrial and Economic Development

Introduction

Due to a dependence on hydrocarbon revenues, the fluctuating price of oil and gas in 2015 has placed a strain on regional economic performance, which in turn has prompted an increased focus on the diversification of national economies. Investment in the development of new sectors, such as a peaceful nuclear energy program, is increasing in a bid to generate new forms of future economic growth and prosperity.

In the UAE, creating a peaceful nuclear energy sector is seen as a means to achieve higher levels of industrialization and economic stability. The investment required during construction, is supporting economic growth, generating opportunities for new and existing local businesses. It is also developing the possibility for the UAE to begin exporting nuclear skills, technology, products and services required for the construction and operation of nuclear energy plants in the region and around the world.

Once the plant becomes operational it will bring an additional economic boost to the UAE. As electricity consumption rises, the introduction of a new source of electricity into the national energy portfolio will reduce reliance on oil and gas, releasing capacity for other uses and preserving hydrocarbons for the future.



Our Sustainability Objectives

- Financial responsibility: Deliver cost-effective power through a combination of financial responsibility and effective operational execution.
- Supply Chain Management: Develop a supply chain that is increasingly locally based and that meets the environmental, social and quality standards of the nuclear industry.
- National Development: Become a driving force behind the UAE's investment plan, providing business development opportunities and contributing to the UAE's GDP.

Financial Responsibility

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.

In order to deliver a world-class power plant safely and within budget, ENEC is continuously working towards improving its systems and processes to ensure cost effectiveness across the corporation using insight from previous power plant developments around the world.

Measures are in place to ensure that funds are spent efficiently and within budget. All expenditures are monitored closely and before being committed, all expenses are approved by authorized personnel, as per the appropriate Delegation of Authority (DOA). Payments are then approved based on the limit authorized in DOA / Sub-DOA, which is reviewed and updated periodically.

ENEC reports its financial performance regularly to the General Secretariat of the Executive Council (GSEC),

the Department of Finance (DOF) and the Regulation & Supervision Bureau - Abu Dhabi (RSB). To ensure timely, meaningful and reliable disclosures of its financial performance, the following mechanisms are in place:

1. Statutory Audit: conducted by the government auditor (Abu Dhabi Accountability Authority), which performs the role of a Statutory Auditor and also audits the activities of ENEC's Internal Auditors to ensure compliance.
2. Internal Audit: regularly reviews and audits ENEC's financial and non-financial systems, processes and results.

The financial investment into this nationally strategic project is captured in the table below. Capital Expenditure (CAPEX) represents payments made towards ENEC's USD 20 billion contractual agreement with the Prime Contractor (KEPCO). As expected, in 2015, our CAPEX increased by 13% due to the continued ramp up of construction activities across all four units. ENEC's relatively short construction period compared to most NPPs makes us economically competitive and sustainable.

Financial Investment

Operating expenditure covers costs of ENEC employees and service contractors, communication, administration and capacity building, including the scholarship program. In 2015, OPEX has risen 45% in comparison to 2014, taking into account the continued growth of

the corporation necessary to complete construction and prepare for operation of the first unit. Scholarship expenditure in particular has increased 67% as ENEC continues to invest in future Emirati nuclear professionals.

Our Sustainability Objectives

	2012	2013	2014	2015
Total Capital Expenditure (USD millions)	1,423	2,171	3,127	3,545
Total Operational Expenditure (USD millions)	152	212	338	490

4.1.2

Creation of a Nuclear Insurance Pool

In 2015, ENEC achieved a major milestone in the nuclear insurance program by initiating the process to create a pool of nuclear insurance capacity within the UAE. The aim of the nuclear insurance pool is to provide cover for the ENEC nuclear plant (nuclear energy plants, nuclear fuel enrichment and manufacture, nuclear waste treatment and disposal and radioisotopes) and, to provide protection for the general public from the potentially catastrophic losses that could arise from widespread radioactive contamination. ENEC is a party

to IAEA's Vienna Convention on Civil Liability for Nuclear Damage. ENEC obtained the agreement of five of the top "A" rated insurers in the UAE to create a co-insurance vehicle called UAE Nuclear Insurance Pool. The UAE Nuclear Insurance Pool will be the first "Nuclear Insurance Pool" in the GCC to carry nuclear risks. The Board's Executive Committee has approved the establishment of a pool and ENEC is currently in the final stages of signing an agreement.

4.2

Supply Chain Management

The supply chain required to construct the Barakah nuclear energy plant project is extensive and global. The vast majority of construction procurement is being directly managed by the Prime Contractor (KEPCO) with guidance, oversight and performance tracking by ENEC to ensure its standards and UAE requirements are implemented.

ENEC is responsible for its own 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 safeguarding ENEC's interests.

Areas of focus with regards to supply chain sustainability include; the localization and security of the supply chain and supplier environmental, social and human rights assessments and impacts.

“Corporate social responsibility is measured in terms of businesses improving conditions for their employees, shareholders, communities, and environment. But moral responsibility goes further, reflecting the need for corporations to address fundamental ethical issues such as inclusion, dignity, and equality.

- Klaus Schwab,
Founder and Executive Chairman, World Economic Forum.

”

4.2.1

Localization and Security of the ENEC Supply Chain

ENEC is committed to, as much as possible, procuring its goods and services from suppliers based in the UAE, stimulating local economic growth and bringing greater security to the supply chain. As ENEC is still in the project phase, the procurement profile varies substantially from year to year. As project activity increases and the size of the corporation continues to grow, there is an overall trend for procurement expenditure to increase.

ENEC has 2,344 suppliers registered on its system, 82% which are based in the UAE. In 2015, 64% of ENEC's

procurement spending was on local suppliers, totaling \$389 million. The actual spending represents a significant increase over previous years.

To further boost local procurement and support national entrepreneurship, ENEC is an active supporter of the Khalifa Fund for Enterprise Development. To date, 34 Khalifa Fund suppliers have registered as suppliers with ENEC, and they are being actively encouraged to bid on future contracts.

Our Sustainability Objectives

	2012	2013	2014	2015
Total procurement spending (USD millions)	127	2,258	267	611
Total procurement spending on suppliers based in the UAE (USD millions)	99	47	232	389
Percentage of procurement spending on locally based suppliers (%)	78%	2%	87%	64%
Number of registered suppliers (Cumulative)	199	1,384	1,827	2,344
Number of registered suppliers based in the UAE (Cumulative)	157	1,164	1,497	1,924
Percentage of registered suppliers that are locally based (%)	79%	84%	82%	82%
Number of Khalifa Fund suppliers registered (Locally owned SME companies funded by Sheikh Khalifa) (Cumulative)	2	8	11	34

The security and continuity of the supply chain is of high importance to ENEC, therefore ENEC have developed a formalized process for identifying risks in the supply chain, using the Business Continuity Management framework. The most critical suppliers were identified in 2015, and ENEC is now in the process of

contacting them to understand their business continuity management procedures to ensure ENEC's own business continuity. In 2016, ENEC will report on the number of high-risk suppliers identified and what percentage have business continuity management systems in place.



4.2.2

Supplier Environmental, Social and Human Rights Impacts

ENEC takes an active role in ensuring that its supply chain is implementing the environmental, social and human rights standards necessary to safeguard the corporation from risk and satisfy ENEC's internal HSE requirements.

Selected suppliers go through the ENEC prequalification process, which helps to identify levels of compliance with necessary standards and regulations. ENEC conducts risk-driven prequalification exercises to ensure that potential suppliers meet the specified standards for quality and safety.

For products and services being procured that are classed as having significant HSE risks attached, bidders will be assessed against a range of project specific HSE requirements. Should a bidder fail to achieve the necessary HSE score, they will automatically fail and be removed from the selection pool.

ENEC's contracting process is integrated with risk management. All contracts require HSE considerations to be incorporated and all suppliers registered through ENEC's supplier portal agree to the "Supplier Code of Conduct", which sets out principles and standards of conduct expected of every supplier. The document covers topics such as fraud, ethical behavior, conflicts of interest, whistleblowing, compliance with the law and ENEC's environmental and sustainability leadership. ENEC's Supplier Code of Conduct can be accessed here http://www.enec.gov.ae/uploads/documents/Supplier_Code_Of_Conduct_2016.pdf

In 2015, ENEC began 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. To date, 718 registered suppliers have signed a statement of compliance regarding worker welfare.

4.3

National Development

The economic impact of the nuclear energy project provides employment opportunities for residents and stimulates the domestic economy, promoting growth in the region. This economic stimulus can be both direct and indirect in the form of job creation, procurement of construction material and the positive impact of the supply chain achieving nuclear-grade standards, and development of local infrastructure.

4.3.1

Job Creation

In 2015 ENEC had over 1,500 direct employees based in Abu Dhabi and in Barakah, and over 19,000 indirect employees working for contractors and subcontractors on-site, most of which are construction workers. Such a significant work force has a direct impact on the economy of Abu Dhabi and the wider country.

For some international employees, their wages are remitted, but many will also bring families into the country, and all will create economic activity through either renting or buying property, spending on transportation, education, health, food, goods and services within the UAE. In 2015, ENEC filled 164 new open positions with Emirati talent. By 2020, when the project reaches its full operational phase, this highly skilled nuclear workforce is expected to increase to 2,500, with an Emiratisation target of 60%.



4.3.2 Material Procurement and Industrial Development

The entire project is creating significant economic activity through the purchase of materials, equipment and services needed for the construction of the plant. The financial impact of this is significant since ENEC's

activities draw resources and bring benefit to thousands of other companies based in the UAE and overseas. In 2015, around 1,100 UAE companies had been awarded contracts totaling US\$2.5 billion.

4.3.3 Raising Levels of Quality across UAE Industry

The presence of a nuclear project in the UAE has helped to improve and develop the industries within the UAE, by opening up new export markets. Any company that aspires to supply materials used in the construction of a nuclear energy plant must achieve nuclear-grade quality assurance standards, depending on the classification of the material. To develop the nuclear grade suppliers in the UAE and region, 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.

ENEC Industrial Development Team is in the process of identifying these needs and communicating them to the national business community encouraging them to prepare to meet the standards required by the nuclear industry and thus bid on contracts.

As a result, several major contracts have been awarded to locally based suppliers, for example major contracts for nuclear-grade steel, concrete and cables being awarded to Emirates Steel, National Cement and Ducab respectively. Having successfully supplied the Barakah Nuclear Energy Plant Project, these companies are now actively bidding and winning new work to supply other nuclear energy plant construction projects around the world, resulting in UAE joining the international nuclear supply chain.

For the first unit, the procurement requirements for the operation and maintenance is providing opportunities for local companies to bid and win new work. The

4.3.4 Local Infrastructure

As per the development plan of Al Gharbia 2030 the financial implications of ENEC's presence in the Western Region is estimated to be around \$16 million over the lifetime of the plant. Furthermore, public services and infrastructure are being developed as part of the project,

including new housing, the upgrading of communications systems and highways contributing to improved quality of life for residents of the Western Region. It is expected that the cost of land and house prices will also increase as a result of ENEC's activities.



Knowledge and Employment

Introduction

One of the main objectives of the UAE Vision 2021 is to create a country that is 'United in Knowledge'. The goal is to create a knowledge-based, highly productive and competitive economy through promoting innovation, research and development, and investment in high value-adding sectors that contribute to non-oil GDP growth. The creation of a peaceful nuclear energy sector will help the UAE to achieve this vision.

The investment being made by the UAE into the nuclear energy program is not only helping to deliver safe, low-carbon and reliable energy for decades to come, it is building the knowledge, skills and capabilities of the Emirati people in a new sector that is expected to see significant growth across the region. As the first country in 27 years to begin constructing its first nuclear energy plant, finding appropriately skilled national workers is a challenge, but also a major opportunity to achieve the country's 'United in Knowledge' ambition as outlined in Vision 2021.

ENEC is tasked with capitalizing on this opportunity through investment and promotion of STEM (Science Technology, Engineering and Mathematics) education, and the development of future nuclear engineers and plant operators. This commitment involves investing heavily in the development of a highly skilled and diverse national workforce capable of building and operating the plant, utilizing the experience of professionals from around the world. By 2020, it is estimated that ENEC will require a team of approximately 2,500 highly skilled people.

Sustainability Value Pillar

The UAE Peaceful Nuclear Energy Program will deliver 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.



Our Sustainability Objectives

- **Highly skilled employment:** Generate jobs, recruit and retain high quality people within ENEC and the nuclear energy sector.
- **National talent development:** Development of Emirati talent in order to join ENEC and the nuclear energy sector.
- **Knowledge creation:** Contribute to the development of a knowledge-based economy through benefiting from international experience and the provision of world-class training and education programs.

Highly Skilled Employment

ENEC strives to attract and retain highly skilled, experienced and diverse professionals from the UAE and around the world, in order to safely achieve its ambitious construction and operation targets set for 2017 and beyond. With an ever-growing workforce that is already scaling up for operation of the first unit, ENEC aims to be a role-model employer in its recruitment and retention of the best talent. Simultaneously ENEC is also focused on safety and diversity to ensure success.

ENEC has conducted an integrated assessment of the number of personnel and skill sets required for the program. This has allowed us to build the necessary levels of human capacity to construct, and in the future operate and maintain the Barakah units. ENEC has also incorporated the IAEA's guidance on human resource development, which has helped in the implementation of human resource development and provided benchmarks and international perspective.



The ENEC Workforce

The ENEC team has grown significantly in the past five years from a team of 386 people in 2011, to 1,574 professionals from 39 different nationalities in 2015. This growth reflected the on-going expansion of the construction project at Barakah, which is the only new nuclear build site with four units under simultaneous construction. The growth also represents the on-boarding of professionals required in order to operate the plant.

The workforce is diverse in its age range, gender and nationality with talent from around the world

The ENEC Workforce					
	2011	2012	2013	2014	2015
Number of employees	386	554	902	1,372	1,574
Female	141	165	220	291	315
Male	245	389	682	1,081	1,259
18-30	148	246	442	582	642
31-50	208	270	372	574	669
51+	30	38	88	216	263
MENA	248	384	638	890	1,005
Africa	6	10	10	17	21
Americas	35	42	84	199	218
Europe / EU / Turkey	39	37	53	94	114
Asia / Australia / New Zealand	58	81	117	172	216

contributing to this ground-breaking regional project. UAE nationals currently make up around 60% of the workforce.

ENEC's projections state that ENEC will require additional "preoperational" staff by 2016, and will experience a significant rise in operational staff from 2017 onwards.

Recruitment and On-boarding

The recruitment of the right people for the right role is an essential component of achieving the ENEC organizational strategy. As a quality control measure and to maintain the highest professional standards ENEC conducts merit-based recruitment. Recruitment also involves more than just interviews, with the formal hiring process informed by, and linked to, the broader goals of

the peaceful nuclear energy program, including those of culture, professional values and attitude.

In 2015 alone, ENEC recruited an additional 290 employees. New procedures are planned to streamline the recruitment process in 2016.

New Employee Hires				
	2012	2013	2014	2015
Number of employees hired	214	404	533	290
Female	46	69	94	47
Male	168	335	439	243
18-30	133	241	208	149
31-50	71	108	197	87
51+	10	55	128	54
UAE National	159	124	282	164
Expatriate	55	280	251	126

All new employees joining ENEC must undergo a rigorous induction program entitled "Becoming a Nuclear Professional". The training lasts three days and covers everything from ENEC's regulatory requirements, safety culture, radiological restrictions and risks, as well as the corporation's policies, procedures and internal systems. The induction is delivered in modules and employees are expected to pass an assessment at the end of each module. In 2016, the induction training will be lengthened to seven days to cover additional requirements such as plant access training and implementation of human

performance tools that aim to reduce human error to a minimum.

ENEC also prepares international new-joiners for the working culture in the UAE. To do this the induction program for new international staff includes lessons on cultural awareness. Through promoting an understanding of the essence of the culture at ENEC and its values, ENEC facilitates enhanced communication, productivity and unity in the workplace.

Employee Satisfaction and Attrition

ENEC strives to create conditions for all employees to give their best every day. Competitive salary and benefit packages provides the foundation, and proactive employee engagement, assessment and wellbeing initiatives help employees stay committed to ENEC's goals and values and gain motivation to contribute to a successful corporation, with an enhanced sense of personal development.

ENEC relies greatly on its senior nuclear industry experts to create a transparent and open culture across the corporation where employees can voice an opinion, especially regarding to safety related matters. Management keeps employees engaged, sets appropriate working standards and provides support to employees by creating high performing team environments.

ENEC Life+

The ENEC Life+ program focuses on making investments in employee health, well-being and work-life balance. ENEC has a dedicated workforce committed to this cause, focused on the following key areas:

- Improving Lifestyles – ENEC offers employees discount cards that extend to family members to enhance their lifestyles. In addition, ENEC also sponsors after work activities that encourage wellness and well-being in employees.

- Growth Opportunities – ENEC encourages keeping minds sharp and continually improving skill sets through mentoring and emerging leadership programs. ENEC has put in place programs that 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.
- Focus on Fitness and Fun – ENEC provides an on-site recreation and fitness center, and the site offices contract with area health clubs, offering discounted opportunities to encourage wellness. ENEC's fit for life program facilitates this initiative.

Employee Benefits

Education assistance	Relocation expenses
Housing entitlement advance	End-of-Service benefit (for expatriates only)
Life insurance	Health insurance
Car loans	Repatriation (for expatriates only)



Female Representation

ENEC's commitment to inclusion and diversity starts at the top, with Her Excellency Sheikha Lubna Bint Khalid Al Qasimi, Minister of International Cooperation and Development as Vice Chairwoman of the Board of Directors. ENEC empowers all employees to lead, and ENEC strongly believes that gender equality is essential in the creation of a high-performing, talented organization.

ENEC has 315 female employees, a total increase of 8% in 2015, over 50% of which are in highly skilled technical positions, including nuclear critical positions, ensuring representation across the corporation and not just administrative roles. Females make up 20% of the total workforce a decrease from previous years primarily due to a limited pool of female availability for the technical roles currently being recruited. Helping to reverse the trend, women now make up 29% of students in ENEC's Energy Pioneer educational programs (for more information on this program, please see page 87), providing a strong pipeline of highly skilled women to join ENEC in the future.



Female Employment

	2011	2012	2013	2014	2015
Number of female employees	141	165	220	291	315
Female employment rate	37%	30%	24%	21%	20%
Number of females in senior management positions					3
% of females in senior management positions					4.5%

To encourage future female employees to join ENEC, and ensure ENEC retains them, ENEC established the Women in Nuclear (WiN) Chapter in 2014. ENEC WiN is the first of its kind in the region, a unique initiative that has allowed ENEC to lead the way on women's equality and empowerment in the workforce. The initiative provides a powerful support network to women in the nuclear sector, connecting them to over 5,000 members globally, which benefits them as individuals, and helps bring valuable international knowledge and expertise into the UAE. The objectives of the WiN ENEC Chapter are as follows:

- Collecting, evaluating, and addressing female employee needs to ensure that ENEC 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.

In 2015 the ENEC CEO announced that the UAE WiN chapter successfully won the right to host the 24th Global WiN Conference scheduled for November 2016. This will put the ENEC WiN chapter at the forefront of the regional female employment and empowerment stage and a prominent actor internationally.

Knowledge Creation and National Talent Development

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.

- To help employees learn specific knowledge and skills.
- To create a sustainable educational system to maintain the on-going flow of staff into the sector.
- To establish a sustainable nuclear technology program that provides nuclear expertise, training and research in the long run.

ENEC's integrated approach to knowledge creation and national talent development is:

- To employ citizens in a meaningful and efficient manner.
- To ensure that a continuous pipeline of skilled resources is available throughout all phases of the program.

ENEC has deployed a number of programs to achieve these objectives, the main one being the Energy Pioneers (EPs), which brings together partners such as KEPCO, regulators, international associations and universities to create an intensive and comprehensive program of national nuclear professional development.

Workforce Emiratization

ENEC is focused on recruiting qualified national talent in order to reduce reliance on international expertise. It is vital that Emiratis play a central role in the national nuclear energy program from construction through to the 60 years of operation and maintenance, and eventual decommissioning of the plant.

of 60% UAE nationals and has successfully surpassed this goal over the last four years, stabilized at 62% in 2015. The Emiratization of senior management has also reached its goal of 60% in 2015, a critical milestone delivered through the fast-track training and development of high-potential UAE nationals to take management responsibilities.

ENEC has a target to ensure the workforce is composed

Emiratization					
	2011	2012	2013	2014	2015
Number of Emiratis	224	361	610	857	970
Emiratization rate (%)	58%	65%	68%	62%	62%
Number of Emiratis in senior management					37
Senior management Emiratization rate (%)	25%	18%	33%	43%	64%

To ensure future leaders are prepared for transition from construction to operation, ENEC invested in the development of 12 high potential Emirati Leaders and enrolled them in the world-renowned Westinghouse

Management Senior Reactor Operator Equivalency Certification program. The program is intended to nuclearize Emirati leaders and familiarize them with integrated plant and systems operation.



Energy Pioneers

Being the first nuclear energy program in the region, the UAE has a limited existing knowledge base in the requisite nuclear fields. According to the IAEA, some specialists in the nuclear field require 5-10 years of training and experience to become qualified nuclear professionals.

standards by the industry's leading global experts. To date ENEC has awarded scholarships to 420 Emirati nationals on a range of nuclear-based programs, and in 2015 64 graduated, adding to the 46 that graduated in 2014.

The Energy Pioneers program was established in 2013, to ensure a pipeline of Emirati talent for the future of the UAE's nuclear energy program. It aims to attract the best and brightest science students, engineering graduates and experienced professionals and train them to become leaders in the UAE's nuclear energy sector.

ENEC has developed an OJT (On the Job Training) program for EPs. The program is designed to provide Barakah Nuclear Energy Plant EPs with the knowledge and skills required to perform assigned tasks. The ultimate goal of this program is to train EPs so that they can perform their assigned tasks independently for safe operation of the plant. To work independently in the plant, means to safely and reliably perform assigned tasks per approved procedures or work instructions without reliance on technical supervision or coaching.

The Energy Pioneers will have an important role in the success of the nuclear energy program in the UAE, where they are receiving training of the highest international

5.2.2.1

University Degrees in Nuclear Engineering

The foundation for the ENEC's future workforce of nuclear engineers are the formal degrees offered domestically by the Khalifa University of Science, Technology and Research (KUSTAR), and internationally through partnerships with overseas universities like Pennsylvania State University, Texas A&M University and North Carolina State University.



5.2.2.2

Higher Diploma in Nuclear Technology

To address the demand for skilled nuclear technicians and other non-engineering plant personnel, the UAE's Institute of Applied Technology (IAT) has developed a Post-Secondary vocational training program called a Higher Diploma in Nuclear Technology (HDNT). The HDNT program, which has been developed by IAT in coordination with ENEC and KEPCO, is the flagship program of Abu Dhabi Polytechnic.

In 2015, under the Energy Pioneer Program, three groups of HDNT graduates completed their diplomas. They will make up the Technician and Local Operator workforce for the Barakah Nuclear Energy Plant once it begins operation.

Operator Training Days				
	2012	2013	2014	2015
Total training days for operator program	-	14,660	16,173	12,567

In 2015, as the Energy Pioneers for Units 1 and 2 are nearing completion of their training program, the number of training days decreases due to the fact that more effort is put on practical exercises that are outside of the normal training schedule, i.e. onsite Experience and participation

in commissioning activities. Furthermore, the self-study time increases in order to allow the participants to begin the preparation for the FANR Certification exam. All of these factors account for the decrease in total training days from the previous year.

“

Nuclear power is a young technology - there's so much more to be discovered. That's what makes it so exciting to me. Yes, there are problems, but innovative people are going to be able to come up with solutions and bring the technology to its full potential.

- Leslie Dewan,
CEO, Transatomic Power

”

5.2.2.3

Senior Reactor Operator Program

To build a workforce of managers and senior-level supervisors, ENEC has instituted a Senior Reactor Operator (SRO) Pilot Program. This training program, which is open to qualified engineers, includes basic training in plant systems and fundamentals of nuclear technology with over 480 hours of simulator training. The program is conducted in partnership with Westinghouse.

Control Room Simulator Training

In 2015, ENEC successfully installed its second full scope APR-1400 training simulator and upgraded its first full scope simulator to become one of the most advanced nuclear training devices in the world. The upgrade consists of custom-designed modeling data applied to both simulators to make the technology more specific to the unique environment of Barakah Nuclear Energy Plant - allowing the devices to mimic the real conditions and future scenarios of the UAE plants.

They are used in conjunction with classroom and on-the-job training to teach Reactor Operator (RO) and Senior Reactor Operator (SRO) trainees the knowledge and skills needed to safely and efficiently operate a nuclear energy plant. Simulation training is part of the essential safety culture of the corporation and plays a critical role in ENEC's on-going operational readiness preparations in the lead up to the completion of the plant.

"The safety of our employees, the community and the environment is ENEC's overriding priority, and our Simulator Training Center plays a critical role in the development of a robust nuclear safety culture. This state-of-the-art facility provides a proven method of training that ensures our reactor operators are well prepared for all scenarios and ready to deliver safe and reliable operations for our plant at all times." said Eng. Ahmed Al Rumaithi, ENEC's Deputy CEO.

5.2.2.4

KEPCO training programs

ENEC's collaboration with KEPCO includes on-the-job training for senior Emirati personnel at Korea Hydro and Nuclear Power (KHNP), a subsidiary of KEPCO, as well

as a mentoring program where experienced Korean professionals are assigned to trainees from the UAE.

5.2.2.5

SUDO High School Program

ENEC, IAT, KEPCO, and the Seoul-based SUDO Electric Technical High School have collaborated to train high school students through the "SUDO program". The program provides eleventh-grade high school students with the opportunity to travel to Korea during the summer to study practical and theoretical aspects of the civil nuclear industry.

UAE-IAEA Nuclear Energy Management School

ENEC partnered with the IAEA, OSHAD, KUSTAR and FANR to form the UAE-IAEA Nuclear Energy Management School. This provides a unique international educational

experience aimed at building future leadership to manage nuclear energy programs and build on a wide range of knowledge on issues related to the peaceful use of nuclear technology. It also provides an environment for individual networking with people interested in nuclear energy from all over the world. The 2015 UAE-IAEA Nuclear Energy Management School (NEMS), which was the first in Abu Dhabi and the region, hosted 45 participants, including 31 participants from ENEC, FANR and Critical Infrastructure and Coastal Protection Authority (CICPA) and 11 international participants.

Employee Training and Development

ENEC offers employees a comprehensive suite of internal and external training and development opportunities. This ensures they have the necessary soft and technical skills to deliver effectively in their role while also building their future career development potential.

ENEC blends traditional instructor led courses and workshops with mobile learning in the form of

eLearning and eReads, providing the freedom to continue development at times suitable to employees and organizational schedules. International training opportunities are also provided should ENEC's comprehensive internal suite of training be unable to provide for specific training requirements.

Training and Development*				
	2012	2013	2014	2015
Total internal training hours delivered	38,310	25,766	24,748	52,024
Internal training hours delivered to UAE national employees				29,132
Internal training hours delivered to expat employees				22,892
Total external training hours delivered		10,320	15,168	86,640
External training hours delivered to UAE national employees		8,432	12,224	78,328
External training hours delivered to expat employees		1,888	2,944	8,312
Average hours of internal and external training per employee	69	40	29	88
Number of eLearning and eReads available				416
Number of eLearning and eReads completed				16,860

*Training hours delivered does not include operator program training as part of the Energy Pioneers program, or time spent on eReads and eLearning since these are untimed and completed at employees own pace.

The number of internal training hours delivered more than doubled in 2015. This is due to the concerted effort to increase the numbers of internally delivered courses available, and the continuous advertising for the new soft skills courses, which are available to all employees. Together with external training, on average ENEC employees received 88 hours of training in 2015, an increase of 203% on previous years reflecting the need for additional training required in the lead up to the first unit becoming operational.

In 2015, external trainings included workshops, courses, certifications, conferences, forums and OJT. These trainings were focused on Nuclear Management, EFQM, IAEA Safeguards & Additional Protocol at Barakah Nuclear Energy Plant, Leadership and Gulf Nuclear Energy Infrastructure Institute (GNEII).

ENEC also reaches out to its stakeholders to provide education and an overview of the specific APR-1400 technology being used by ENEC. In 2015 ENEC trained 50 employees from Abu Dhabi Water & Electricity Company (ADWEC), FANR and Transco helping to build stakeholder's nuclear knowledge and assist in their professional development.

As ENEC moves closer to its first unit becoming operational, employees must be prepared for the transition from construction to operation. To support this, in 2016, ENEC will launch a 2-day 'Plant Access Training' course mandatory for all employees. It will cover important safety, security and radiation protection requirements for anyone accessing the plant to be aware of. For access to radiation-controlled areas, even further training will be required.

Research and Development

ENEC values research partnerships and aims to work together in research and education to strengthen radiation science and safety outcomes. Past collaborations have included the Electric Power Research Institute (EPRI) nuclear research program. The membership has enabled ENEC to access a wide array of EPRI research results, participate in staff exchanges and

technical guidance that can inform the development and operation of the Barakah Plant. 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. ENEC is always looking for opportunities to collaborate on research and development initiatives.





Appendix Report

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, 2015. The reporting period is January 1, 2015–December 31, 2015.

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 2015 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 identified have an impact within all parts of the organization and the UAE.

ENEC's Sustainability Aspects and their external boundaries

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

APPENDIX B – STAKEHOLDER MAPPING

ENEC Stakeholder Group			
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.	<ul style="list-style-type: none"> 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.
Potential Suppliers and Contractors	UAE and international companies that seek to 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. Transparency in the selection process.	<ul style="list-style-type: none"> Collaborative monitoring of project delivery. Visits to potential suppliers. Dedicated Industrial Development Team. Supplier Code of Conduct.
Active Suppliers (with current contract with ENEC)	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.	<ul style="list-style-type: none"> 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.
Government Entities	Federal, regional and local government ministries and authorities.	Safety, security, environment, emergency preparedness, shared infrastructure and other resources.	<ul style="list-style-type: none"> Site delegations, facility tours and inspections. Regular meetings and written correspondence. Program Executive Update. Stakeholder forums. Participation in governmental initiatives and campaigns. Regular 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.	<ul style="list-style-type: none"> 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.
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.	<ul style="list-style-type: none"> 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.	On-going access to timely, comprehensive information about the project.	<ul style="list-style-type: none"> Regular press releases about the latest project updates and important events. In-depth background media briefings. Executive Interviews and Q&As. Project news and updates. Media relations activities. Public reports. Press conferences and events. Social Media.
International Organizations, Government and Financial Institutions	Multilateral organizations, governments of GCC nations, governments of civilian nuclear energy programs.	On-going access to timely, comprehensive information about the project.	<ul style="list-style-type: none"> Delegations and events. Program Executive Update. Responding to on-going 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.	<ul style="list-style-type: none"> Energy Pioneers Programs. Regular events and career fairs at schools and universities, and 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.	<ul style="list-style-type: none"> 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 icon 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	7	
G4-2	18	
ORGANIZATIONAL PROFILE		
G4-3	14	
G4-4	14,24	
G4-5	Abu Dhabi	
G4-6	UAE	
G4-7	Government Owned	
G4-8	UAE	
G4-9	10, 11	
G4-10	82, 83	
G4-11	UAE labour law does not have a provision for collective bargaining	
G4-12	72 - 74	
G4-13	4, 5	
G4-14	7	
G4-15	17,31	
G4-16	17	
IDENTIFIED MATERIAL ASPECTS AND BOUNDARIES		
G4-17	ENEC has no public financial statements	
G4-18	94	
G4-19	94	
G4-20	94	
G4-21	94	
G4-22	No restatements	
G4-23	No significant changes	
STAKEHOLDER ENGAGEMENT		
G4-24	96, 97	
G4-25	42	
G4-26	42 - 44	
G4-27	44	

REPORT PROFILE		
G4-28	2015	
G4-29	2014	
G4-30	Annual	
G4-31	5	
G4-32	4	
G4-33	5	
GOVERNANCE		
G4-34	34 - 36	

SPECIFIC STANDARD DISCLOSURES			
DMA and Indicators	Page Number	Omissions	External Assurance
CATEGORY: ECONOMIC			
MATERIAL ASPECT: ECONOMIC PERFORMANCE			
G4-DMA	71		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	86		Not assured
G4-EC6	86		Not assured
MATERIAL ASPECT: INDIRECT ECONOMIC IMPACTS			
G4-DMA	70 - 73		Not assured
G4-EC7	70 - 72		Not assured
G4-EC8	70 - 72		Not assured
MATERIAL ASPECT: PROCUREMENT PRACTICES			
G4-DMA	73		Not assured
G4-EC9	73		Not assured
CATEGORY: ENVIRONMENT			
MATERIAL ASPECT: MATERIALS			
G4-DMA	58 - 59		Not assured
G4-EN1	58 - 59		Not assured
MATERIAL ASPECT: ENERGY			
G4-DMA	60		Not assured
G4-EN3	60		Not assured
G4-EN4	60		Not assured

MATERIAL ASPECT: WATER			
G4-DMA	61		Not assured
G4-EN8	61		Not assured
G4-EN10	61		Not assured
MATERIAL ASPECT: BIODIVERSITY			
G4-DMA	63		Not assured
G4-EN13	63		Not assured
MATERIAL ASPECT: EMISSIONS			
G4-DMA	62		Not assured
G4-EN15	62		Not assured
G4-EN16	62		Not assured
G4-EN17	62		Not assured
MATERIAL ASPECT: EFFLUENTS AND WASTE			
G4-DMA	58		Not assured
G4-EN22	58		Not assured
G4-EN23	58		Not assured
MATERIAL ASPECT: COMPLIANCE			
G4-DMA	57		Not assured
G4-EN29	57		Not assured
CATEGORY: SOCIAL			
SUB-CATEGORY: LABOR PRACTICES AND DECENT WORK			
MATERIAL ASPECT: EMPLOYMENT			
G4-DMA	83		Not assured
G4-LA1	83		Not assured
G4-LA2	84 - 86		Not assured
MATERIAL ASPECT: OCCUPATIONAL HEALTH AND SAFETY			
G4-DMA	52		Not assured
G4-LA6	52		Not assured
MATERIAL ASPECT: TRAINING AND EDUCATION			
G4-DMA	87-90		Not assured
G4-LA9	90		Not assured
MATERIAL ASPECT: DIVERSITY AND EQUAL OPPORTUNITY			
G4-DMA	34		Not assured
G4-LA12	34		Not assured
MATERIAL ASPECT: SUPPLIER ASSESSMENT FOR LABOR PRACTICES			
G4-DMA	74		Not assured
G4-LA14	74		Not assured

MATERIAL ASPECT: LABOR PRACTICES GRIEVANCE MECHANISMS			
G4-DMA	66		Not assured
G4-LA16	66		Not assured
SUB-CATEGORY: HUMAN RIGHTS			
MATERIAL ASPECT: NON-DISCRIMINATION			
G4-DMA	No grievances related to human rights were known, led, or reported to the Ethics Helpline		Not assured
G4-HR3	Zero		Not assured
MATERIAL ASPECT: FORCED OR COMPULSORY LABOR			
G4-DMA	No risk for incidents of child labor or forced labor		Not assured
G4-HR6	None		Not assured
MATERIAL ASPECT: SECURITY PRACTICES			
G4-DMA	53		Not assured
G4-HR7	53		Not assured
MATERIAL ASPECT: SUPPLIER HUMAN RIGHTS ASSESSMENT			
G4-DMA	73, 74		Not assured
G4-HR10	73		Not assured
SUB-CATEGORY: SOCIETY			
MATERIAL ASPECT: LOCAL COMMUNITIES			
G4-DMA	43, 96, 97		Not assured
G4-SO1	100%		Not assured
MATERIAL ASPECT: ANTI-CORRUPTION			
G4-DMA	37		Not assured
G4-SO4	37		Not assured
MATERIAL ASPECT: COMPLIANCE			
G4-DMA	37		Not assured
G4-SO8	No non compliance		Not assured

APPENDIX D – ACRONYMS AND GLOSSARY

Acronyms			
ABISET	Applied Bachelor's in Information Security Engineering Technology	EC	Executive Committee
ADAA	Abu Dhabi Accountability Authority	EIA	Environmental Impact Assessments
ADNOC	Abu Dhabi National Oil Company	ENEC	Emirates Nuclear Energy Corporation
ADSF	Abu Dhabi Science Festival	EPRI	Electric Power Research Institute
ADSG	Abu Dhabi Sustainability Group	EQ	Equipment Qualification
AED	United Arab Emirates Dirham	ERM	Enterprise Risk (Threat and Opportunity) Management
APR	Advanced Power Reactor	ERMC	Executive Risk Management Committee
ARCC	Audit, Risk and Compliance Committee	ERT	Emergency Response Team
ARM	Active Risk Manager	FANR	Federal Authority for Nuclear Regulation
BCM	Business Continuity Management	GBPE	General Business Principles and Ethics
CEMP	Construction Environmental Management Plan	GCC	Gulf Cooperation Council
CEO	Chief Executive Officer	GDP	Gross Domestic Product
CICPA	Critical Infrastructure and Coastal Protection Authority	GHG	Green House Gas
CIPS	Chartered Institute of Purchasing and Supply	GRI	Global Reporting Initiative
CO ₂ e	Carbon Dioxide Equivalent	GWh	Gigawatt-Hour
CR	Condition Reporting	HCC	Human Capital Committee
CSR	Corporate Social Responsibility	HIT	High Impact Team
CVD	Cardio Vascular Disease	HQ	Head Quarters
Ducab	Dubai Cable Company Ltd	HSE	Health, Safety and Environment
EAD	Environment Agency - Abu Dhabi	HSEMS	Health, Safety and Environment Management System

IAB	International Advisory Board	OEMP	Operational Environmental Management Plan
IAEA	International Atomic Energy Agency	OHSAS	Occupational Health and Safety Advisory Services
INPO	Institute of Nuclear Power Operations	PSC	Procurement and Supply Chain
IRM	Institute of Risk Management	QA	Quality Assurance
ISO	International Organization for Standardization	RCB	Reactor Containment Building
JQC	Job Qualification Certificate	RO	Reactor Operator
KEPCO	Korea Electric Power Corporation	Sox	Sulfur Oxides
KU	Khalifa University of Science, Technology and Research	SRO	Senior Reactor Operator
kWh	Kilowatt-Hour	STC	Simulator Training Center
LTIFR	Lost-Time Injury Frequency Rate	TRCF	Total Recordable Case Frequency
m ³	Cubic Meter	UAE	United Arab Emirates
MEPRA	Middle East Public Relations Association	UK	United Kingdom
MoU	Memorandum of Understanding	USD	United States Dollar
MTCO ₂ eq	Million Tons of Carbon Dioxide Equivalent	WANO	World Association of Nuclear Operators
MW	Mega Watt	WBCSD	World Business Council on Sustainable Development
NGO	Non-Governmental Organization	WiN	Women in Nuclear
NMDC	National Marine Dredging Company	WNE	World Nuclear Exhibition
NOx	Nitrogen Oxides	WRI	World Resources Institute
NPP	Nuclear Power Plant		

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 long-term multi-stakeholder, 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 energy 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 energy 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 cross-disciplinary area concerned with protecting the safety, health and welfare of people engaged in work or employment.
Radioactive	Emitting or relating to the emission of ionizing radiation or particles
Renewable Energy	Energy from a source that is not depleted when used.
Stakeholder Engagement	The process by which a firm's stakeholder engage in dialogue to improve a firm's decision-making and accountability toward sustainable development.
Stakeholders	A party that affects or can be affected by the actions of 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 stand-alone 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.

