



urencO

Sustainability report 2016



For more than 45 years, URENCO has played an important role in the world's civil nuclear energy industry. We are committed to helping our customers generate low carbon energy in a safe and sustainable way.

As a key player in the global civil nuclear fuel cycle, sustainability is fundamental in our strategic decision making at URENCO. It shapes our customer partnerships, informs our efforts to meet demand, and guides our strategic and operational decision-making. We continue to report to the international Global Reporting Initiative (GRI) G4 reporting standards as part of this commitment to society and the environment.

Nuclear is a long-term business and URENCO takes a long-term view of its operations. We know that our utility customers value our reliable supply of uranium enrichment services in order to provide low carbon electricity to consumers across the globe. We are firmly committed to their success and to ours.

It is what we call '**enriching the future**'.



Miriam Maes
Chair of Board Sustainability Committee

Sustainability to URENCO means creating the right conditions now to support the delivery of our long term strategy without compromising the environment in which we operate.

We report in accordance to the GRI standards in order to guide our continual improvement in this area and support our commitment to open and transparent communication of URENCO's performance.

Our sustainability programme is built around six key areas of focus, which ensures we report on the most relevant topics to our business and those of specific interest to our stakeholders.

As Chair of the Sustainability Committee, I am pleased with the progress the organisation has made to embed sustainable practices into day to day operations.



Dr Thomas Haeberle
Chief Executive Officer

Chief Executive Officer's review

URENCO is committed to maintaining its position as a leading provider of enrichment services and fuel cycle products for the civil nuclear industry. Aiming to optimise the way we operate, broaden our services and remain a partner to the nuclear industry, we are focused on meeting customer requirements and ensuring the long term success of our business.

Here, our Chief Executive Officer Thomas Haeberle answers questions about URENCO's sustainability performance in 2016 and our future direction.

How was 2016 for URENCO from a sustainability perspective?

One of the major developments of 2016 was our strategic review, which we undertook with the aim of setting out the direction for URENCO's long term future.

Given the continued challenges in the global enrichment market, a comprehensive strategic review was conducted of both our business and our market. Our goal is to ensure that URENCO is well positioned to respond to these ongoing challenges, minimise risk to our business and identify growth opportunities so that we remain a secure, long term partner to our customers.

URENCO has played an important role in the world's nuclear energy industry for more than 45 years, which is testament to our ability to address market challenges and embrace change. URENCO's new strategy is centred on optimising our business, remaining a leader in the global supply of enrichment services and expanding our high tech capabilities to more broadly serve the nuclear energy industry. Our strategy will ensure we leverage our technical capabilities for long term advantage. Ensuring the long term sustainability of the company was the foundation of the strategic review.

More information on URENCO's new strategy can be found in our Annual Report 2016.

How embedded is sustainability and what does it mean to the organisation?

For URENCO, sustainability is about building a company for the long term. We provide our customers with the enrichment services they need to produce low carbon electricity through nuclear power generation. URENCO takes a holistic view of its economic, environmental and social impacts to ensure we have the appropriate measures in place to protect our business, whilst continuing to meet the needs of our stakeholders.

According to the latest IPCC Synthesis Report, at least 80% of the world's electricity must be low carbon by mid-century if we are to stand a chance of keeping global warming below 1.5°C.¹ Nuclear energy currently avoids approximately 2.5 billion metric tonnes of CO₂ from being emitted into the atmosphere each year,² and is the second-largest source of low carbon power after hydro.³

URENCO has a Board level Sustainability Committee, now in its third year, which enables our sustainability agenda to be embedded across all areas of our business and supports our objective to be a long term partner to the civil nuclear industry.

In 2015, we introduced key performance indicators (KPIs) leading to an improvement in the way we monitor and report on progress in our sustainability focus areas, and in 2016 we refined this process further through enhanced data quality, analysis and validation.

Our people have a clear understanding of the role URENCO plays in the production of low carbon energy to meet global energy demands, as well as the requirement to achieve efficiencies across all areas of the business.

Our commitment to sustainability helps us to continue to drive the progress of initiatives such as our ZERO HARM campaign and our Energy Savings Programme. Of course, we are still on a sustainability journey and it remains a key area of focus for our business.

¹ World Nuclear Association, Hot Topics 2015, p.6

² Nuclear Energy Institute: <https://www.nei.org/Knowledge-Center/Nuclear-Statistics/Environment-Emissions-Prevented>

³ www.forbes.com/sites/jamesconca/2015/12/15/paris-cop21-and-the-urgent-need-for-more-nuclear-energy/#4a29caff4952

What were the sustainability highlights for the year? What were the challenges?

In 2016, we continued to focus on safety as our core priority, and conducted a company wide root cause analysis of safety incidents. Despite this ongoing process, in June 2016 at our Stable Isotopes facility in the Netherlands, we had an incident inside a fume cupboard where the compound GeF_4 was being transferred into a cylinder. A small leak of the gas was detected by an operator on site. The incident was mitigated; however we take any incident of this nature very seriously, and learnings from the event were taken forward to further improve our safety and processes.

We made good progress in our environmental impact mitigation schemes, reducing electricity consumption across the organisation by more than 4%, compared to our previous best performing year (2014), rolling out our TC21 centrifuge energy efficiency programme in the USA and completing designs for a new recycling centre in the Netherlands.

Another highlight of 2016 was the launch of URENCO's new sponsored interactive gallery at the Science Museum in London. Unveiled in October 2016, 'Wonderlab: The Statoio Gallery' engages visitors with the wonders of science and mathematics and enables us to reach an even broader audience as we seek to enhance understanding of the nuclear industry, how it operates and why it is important. Our sponsorship is a powerful showcase of our commitment to science education and public engagement, as we focus on inspiring the next generation of scientists and engineers. We are all immensely proud of our partnership with the Museum, which is testament to the quality of our past education initiatives dating back to the launch of our Richie Programme for school children in 2007. For more information, see page 27.

In addition, as a mark of our commitment to transparency and engagement with stakeholders, in 2016 we launched a new sustainability section on our website where we have summarised key areas of interest.

In terms of our ongoing projects, we continue to work through the challenges we have encountered in the construction of our Tails Management Facility (TMF). The TMF is part of our commitment and leadership in responsible uranium stewardship and, while risks remain in terms of cost and schedule, we anticipate the commissioning for late 2017/early 2018. For further information, see page 19.

URENCO will continue to face pricing pressures due to the ongoing oversupply in the enrichment market. Our order book contains orders which extend to the second half of the next decade, with a value of approximately €15.5 billion, but it is clear the environment in which we operate has changed significantly. Adapting to change during this period will be critical, which is why we have conducted our comprehensive strategic review. Our new strategy aims to ensure our sustainability as an organisation.

What does your ongoing commitment to GRI mean for URENCO?

Once again, this year we have prepared our Sustainability Report in line with GRI's G4 Core reporting requirements. Building on the progress we have made in recent years, in 2016 we improved our reporting process further by validating our material Aspects, with a cross section of stakeholders across the business, to ensure the information and data we report on continues to be relevant. For me, this reflects our commitment to continuous improvement and best practice.

What is the outlook for the nuclear industry and URENCO?

Nuclear is well placed to meet increased future demand for energy. Global electricity demand is increasing twice as fast as overall energy use and is expected to increase by 30% up to 2040.⁴ We know that this trend, combined with the global shift towards decarbonisation, will result in growth in the nuclear sector. We firmly believe that nuclear is an essential component of a balanced energy mix for the sustainability of the world and its economies.

Despite current market challenges created by oversupply and increased volume of inventory, I think we can be cautiously optimistic that our industry will return to a more balanced supply and demand situation in the future. We believe that current prices are unsustainable to foster investment in enrichment operations, and customers will always require the security of supply that we continue to provide for our industry. Our geographic spread, with three European sites and a USA site, is a distinct advantage in providing security of supply to our customers. Our broad reach allows us to flexibly adapt to meet the changing demands of customers and the industry. We also have a strong forward order book which enables us to plan future production volumes in advance.

What are your sustainability priorities for 2017?

Our main priority is to deliver on our new strategic objectives and maintain our position as a key supplier of enrichment services to the nuclear industry. We will endeavour to build our customer base, looking to expand our business and pursue new commercial opportunities, while maintaining the skills and technical capabilities to remain a long term partner to the industry.

In 2017, we will continue to monitor the consequences of the UK's withdrawal from the European Union (EU) and the EURATOM Community. We have created a Working Group dedicated to assessing all potential impacts and implications, and supporting industry associations through participation in some of their various sub groups.

While the UK's exit from the European Union and the EURATOM Community may create a period of uncertainty, URENCO is in a good position to anticipate and mitigate any risks that emerge from this process. The fact that we have enrichment plants in Europe and in the USA provides the unique benefit of geographical diversity of supply.



Dr Thomas Haeberle
Chief Executive Officer

⁴ International Energy Agency, World Energy Outlook 2016: <http://www.iea.org/publications/freepublications/publication/WorldEnergyOutlook2016ExecutiveSummaryEnglish.pdf>

Glossary

British Science Association

A registered charity founded in 1831, whose vision is of a world where science is at the heart of society and culture.

Capital expenditure

Purchases of property, plant and equipment including prepayments relating to payments to ETC in advance of contracted cascade deliveries, which will be supplied in future periods.

CNS

Capenhurst Nuclear Services Limited, a subsidiary company of URENCO, has taken responsibility for storage of certain uranic materials on behalf of the Nuclear Decommissioning Authority at the Capenhurst facility in the UK.

Deconversion

This is the process of removing the volatile fluorine component from uranium hexafluoride to make stable uranium oxide (U3O8). URENCO has chosen to use U3O8 as the long-term retrievable storage form of uranium.

EBITDA

Earnings before exceptional items, interest (including other finance costs), taxation, depreciation and amortisation and joint venture results (or income from operating activities plus depreciation and amortisation, plus joint venture results). Depreciation and amortisation are adjusted to remove elements of such changes already included in changes to inventories and other expenses.

Energy Savings Group (ESG)

The ESG is responsible for driving action, accountability and engagement in energy efficiency and optimisation. Three times a year, the ESG convenes meetings to share learnings and propose initiatives to minimise energy usage.

Enrichment

The step taken in the nuclear fuel cycle that increases the concentration of U_{235} relative to U_{238} , in order to make uranium usable as a fuel for light water nuclear reactors.

ETC

Enrichment Technology Company Limited.

Euratom

The European Atomic Energy Community, established in 1957 by members of the European Union.

Global Reporting Initiative

The reporting framework which provides guidance on sustainability performance reporting.

Hazardous waste

Transported, imported, exported or treated waste deemed hazardous under the terms of the Basel Convention Annexes I, II, III and VIII.

Head Office

URENCO Group's head office in Stoke Poges, UK.

IAEA

The International Atomic Energy Agency is the world's central intergovernmental forum for scientific and technical cooperation in the nuclear field.

LED

Light-emitting diode.

Materiality

Materiality refers to the sustainability elements which are sufficiently important that they should be reported. They cover the organisation's significant economic, environmental and social impacts, or substantively influence the assessments and decisions of stakeholders.

Non-hazardous waste

Transported, imported, exported or treated waste that is not deemed hazardous under the terms of the Basel Convention Annexes I, II, III and VIII.

Nuclear Fuel Supply Chain

The multiple steps that convert uranium as it is extracted from the earth to nuclear fuel for use in power plants. Uranium enrichment is one step in the nuclear fuel supply chain.

Order book

Contracted and agreed business estimated on the basis of 'requirements' and 'fixed commitment' contracts.

Recycled

The process of putting a product to another use once its primary use has been exhausted.

Reused

The process of putting a product to another use once its primary use has been exhausted.

Richie

Richie is an animated character and acts as URENCO's science ambassador. The Richie programme is a core element of URENCO's school and education outreach. Through Richie, URENCO connects with its youngest audiences, teaching them about science and energy in an engaging and interactive way.

Richie Lecture

URENCO's annual Richie Lecture is a celebration of STEM education for school children, featuring a lecture on a related topic, held at the Science Museum.

SMR

Small modular reactors are advanced reactors that produce electric power up to 300MWe, designed to be built in factories and shipped to sites for installation as demand arises.

Stable Isotopes

URENCO's Stable Isotopes business uses centrifuge technology to produce a variety of other products for medical, industrial and research applications.

STEM

Refers to the core subjects of Science, Technology, Engineering and Maths.

Supplier of choice

Increasing available capacity and experience of new operating environments facilitates first class service delivery and the flexibility to meet the changing needs of our customers. This will enable URENCO to be considered the 'supplier of choice' by our customers.

Glossary

SWU

Separative Work Unit. The standard measure of the effort required to increase the concentration of the fissionable U_{235} isotope.

Tails (depleted UF_6)

Uranium hexafluoride that contains a lower concentration than the natural concentration (0.711%) of the U_{235} isotope.

Tails Management Facility (TMF)

The facility constructed and operated by URENCO ChemPlants Limited that will manage the deconversion of tails to stable uranium oxide (U_3O_8). Currently under construction at URENCO's UK site in Capenhurst, UK, it will consist of a number of associated storage, maintenance and residue processing facilities to support URENCO's long-term strategy for the management of tails.

U_{235}

The fissionable uranium isotope found in natural uranium.

U_{238}

The non-fissionable uranium isotope that makes up most of natural uranium.

UD

URENCO Deutschland.

UNL

URENCO Nederland.

Uranium

A fairly abundant metallic element. Approximately 993 of every 1,000 uranium atoms are U_{238} . The remaining seven atoms are U_{235} (0.711%), which is used in today's nuclear power stations to generate energy by fission.

Uranium hexafluoride (UF_6)

All enrichment processes today work with gaseous material; therefore, uranium is converted to UF_6 .

URENCO ChemPlants Limited (UCP)

URENCO ChemPlants Limited, a subsidiary company of URENCO, is responsible for the construction and operation of the Tails Management Facility at URENCO's site in Capenhurst, UK.

UUK

URENCO UK.

UUSA

URENCO's enrichment facility in New Mexico, US, owned and operated by Louisiana Energy Services LLC.

Further information

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