equinor

Block 2 Tanzania

An emerging gas sector

Major gas discoveries have been made offshore Tanzania and the country emerges as a potential large gas producer in East Africa.

In Block 2, Equinor together with partner ExxonMobil have discovered estimated volumes of more than 20 trillion cubic feet (Tcf) of gas in place. Currently, an LNG project is the viable solution to secure the development of the gas resources and maximize the value of the project for the government and for the companies responsible for the exploration and the development activities.

An LNG project will generate significant long-term benefits to Tanzania through government revenues, gas for energy production, employment and development of the local economy.

Equinor in Tanzania

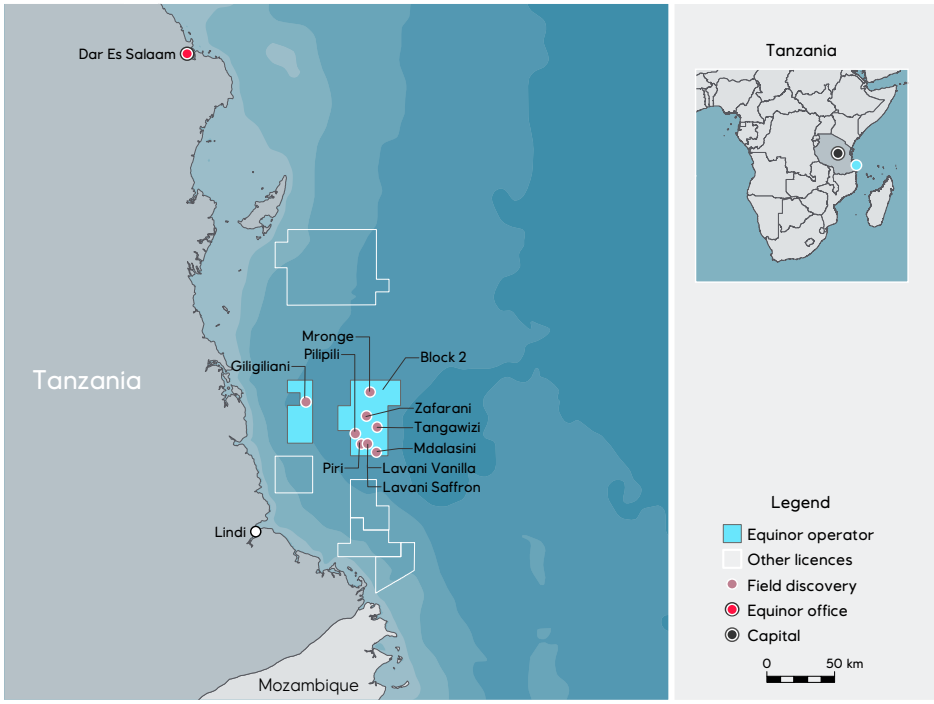
Equinor (formerly Statoil) was established as the Norwegian National Oil Company in 1972. 67% of the shares are owned by the Norwegian State while the remaining shares are owned by private investors. Equinor is listed on the Oslo (Norway) and New York (USA) stock exchanges.

Equinor has been in Tanzania since 2007 when the company signed a Production Sharing Agreement (PSA) for Block 2 with Tanzania Petroleum Development Corporation (TPDC). Equinor Tanzania is the Operator with 65% participating interest while ExxonMobil is partner with a 35% working interest. TPDC has the right to participate with 10% interest.

Successful exploration campaigns in Offshore Tanzania

Equinor started exploration drilling activities in Block 2 Offshore Tanzania in 2011. A total of 15 exploration wells have been drilled, resulting in nine discoveries with estimated volumes of more than 20 Tcf of gas in place.

Parallel to the exploration activities, Equinor took the initiative for numerous capacity building actions and has awarded more than 100 graduate scholarships. Overall more than 2 billion USD have been invested in Tanzania.



The Block 2 LNG Project

Following the success of the exploration campaigns, Equinor as the operator of Block 2 is preparing for the development of the gas resources which are located about 100 km from the coast of Lindi, at a water depth of 2500 meters. Equinor will bring the competence that has developed across numerous offshore and onshore projects in Norway and across the world, to Tanzania.

The gas in Block 2 is spread across several reservoirs in locations situated kilometres apart. This will require multiple production wells to extract the gas and bring it to shore.

Over the years, Equinor has conducted extensive technical studies on Block 2. These studies have shown that the seabed conditions are challenging with large underwater canyons. We have concluded that we can safely and most efficiently develop the fields by using subsea wells (wells located at the seabed), without costly installations above sea level.

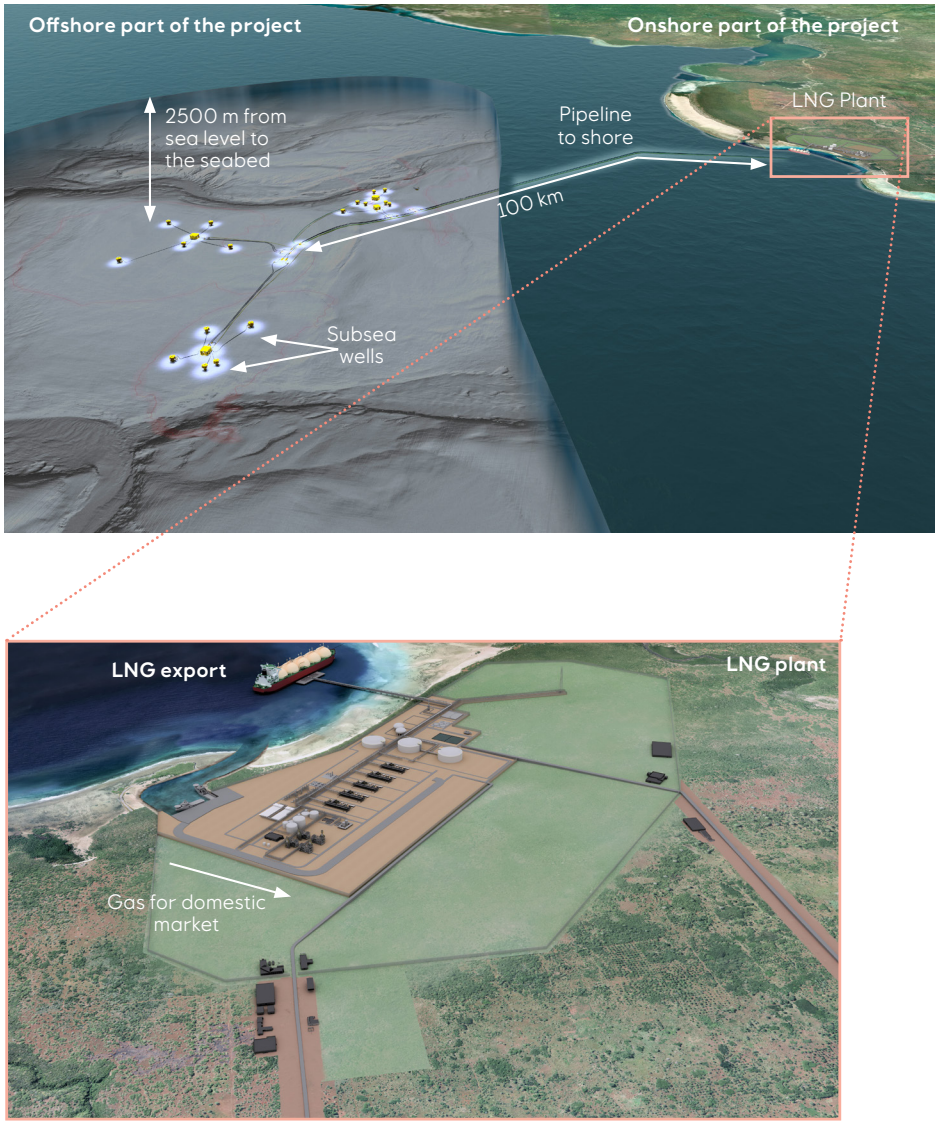
The gas will then be transported by a subsea pipeline to shore. Once the gas reaches shore on the common LNG site, north of Lindi, it will be processed and cooled down to form liquefied natural gas, LNG.

To be able to develop the large gas discoveries in Block 2, that require significant capital investments by international investors, it is necessary to secure access to well established international LNG markets. Tanzania is strategically located to serve the markets in Asia, Europe and South America.

The Block 2 LNG production, expected to be 7.5 million tons per year (MTPA), will be exported to the international markets using dedicated LNG ships, which will constitute the main source of revenues.

A part of the gas arriving in Lindi will be allocated to the domestic market and in the future potentially exported to regional markets.

As a mega-project, the Block 2 development will require investments, in the order of 20 billion USD, and will play an important role in the growth of the Tanzanian economy.

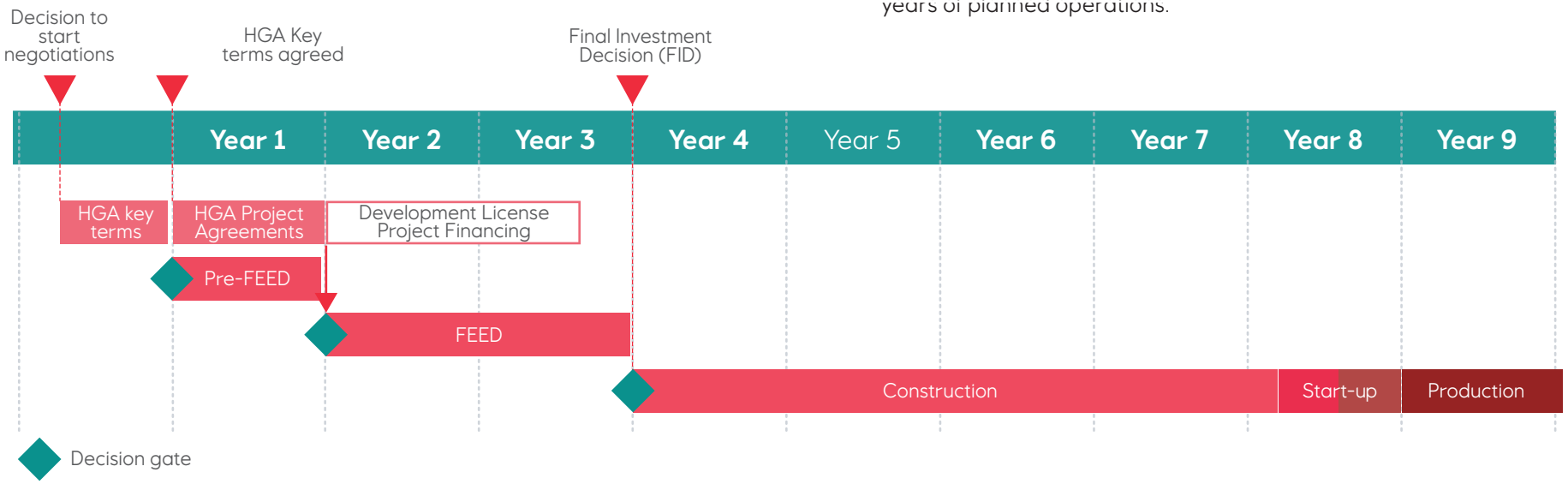


Status of the Tanzania LNG Project

The Tanzania LNG Project is still at an early stage. Before construction can start, 3-years of planning and engineering work (pre-FEED and FEED) will have to be carried out. This work is essential to guarantee there is sufficient technical definition and preparation for the construction phase to be completed efficiently within the schedule and the cost estimated. The construction of the plant is estimated to take 4 to 5 years and after start-up production is expected to last for more than 30 years.

The next step for the project is to start the environmental and geotechnical surveys on the site in Lindi. Prior to initiating any project activities, the Government and the Block 2 partners need to agree on the commercial framework for the project, the HGA (Host Government Agreement) key terms.

The Block 2 development will provide numerous opportunities for jobs and services during the construction period and the subsequent more than 30 years of planned operations.



Key numbers of the Project

More than 30 years of production

More than 20 TCF (trillion cubic feet) of gas in place

LNG production of 7.5 MTPA (Million Tons Per Annum)

Potential to produce 8 TWh (terawatt hours) of yearly electricity from the 10% of gas allocated to the domestic market (current electricity consumption in Tanzania is 5.2 TWh/year*)

*International Energy Agency (IEA)

If sanctioned, the Tanzania LNG Project will provide significant benefits for Tanzania

The Project will be the first of its kind in Tanzania both in magnitude and size and could significantly contribute to the growth of the Tanzanian economy.

Tanzania revenues and GDP contribution: Government share of value creation of the project is expected to be more than 60%. This is a high share compared to other countries and projects around the world. Government share will consist of direct income from Government's rights to volumes according to the PSA and income from TPDC participation as well as taxes. The contribution to GDP will also be indirect through economic ripple effects from the project and other economic activities.

Domestic gas: The project will provide gas for the domestic market in accordance with the agreed PSA terms. This gas can be used by Tanzania to support the vision for 2025, with the clear ambitions on electrification and industrialisation. The potential substitution of imported heavy fuel oil with domestically produced natural gas can also improve the balance of foreign currency payments.

Capacity/capability development: Establishing a new industry will require developing new capacities and capabilities, benefiting both the project and Tanzania as a country. Capacity development is closely related to local content and requires close collaboration between the partners of Block 2 and the Government in order to be achieved.

Local content: The project provides extensive opportunities for development of the local economy and the local suppliers. Equinor will continue the dialogue with PURA (Petroleum Upstream Regulatory Authorities) and TPDC to develop Local Content Plans for the activities in the country.

Indirect economic effects or ripple effects will be significant. Indirect effects on employment are calculated to be far higher from supporting services than from operations. In addition to new jobs, the project will introduce competence and experience building that will support Tanzania's further development, both within industry and civil service.

Gas for growing energy demand

Potential to more than double the electricity production in Tanzania

Job opportunities and development of local economy

Expected more than 30 years of operation

Value creation from the project to the Government

More than 60% of the overall value creation of the project will remain in Tanzania

The gas - natural gas

Natural gas is formed by decomposition of plants and animal matter under the subsurface of the Earth over millions of years and it can be discovered in deep underground reservoirs.

Natural gas can be used for electricity generation and in industries such as fertilizer, cement, petrochemicals and others. It can also be used for heating and cooking and as fuel for vehicles and ships.

Is natural gas dangerous?

Natural gas is normally non-toxic. If ignited, it will burn and can cause explosions. Equinor has high Health, Safety and Environmental (HSE) standards and a sharp focus on preventing and detecting leaks.

Gas for the domestic market

Equinor will supply up to 10% of the natural gas, for use in the domestic market- Domestic Supply Obligation (DSO). This has the Potential to double electricity production from gas, in Tanzania and enable further industrial development.

Pre-FEED & FEED

Significant planning and preparation work is needed before the construction of the facilities can begin. These phases of the project are referred to as pre-FEED and FEED (Front End Engineering Design).

One important activity in pre-FEED is to map the soil characteristics at the site in Lindi. This is necessary for selecting construction methods and materials to be used for construction of the LNG plant.

The Host Government Agreement (HGA)

The HGA will establish the fiscal, legal and commercial terms for the Onshore part of the LNG Project, just as the PSA defines these items for the Offshore part of the project.

The goal for the HGA is to ensure long term benefits to Tanzania, a commercially viable and financeable project and long-term stability and confidence for the international investors.

What is Liquefied Natural Gas (LNG)?

LNG is natural gas that has been cooled to a liquid form at approximately -160°C. LNG is odourless, colourless, non-corrosive and non-toxic. The volume of natural gas in its liquid form is about 600 times smaller than its volume in the gaseous form. The natural gas extracted from the underground reservoir contains minor amounts of water, carbon dioxide (CO_2) and mercury, components that will have to be removed before the natural gas is liquefied.

The liquefaction process enables long-distance transportation and storage of natural gas. Specially designed ships called LNG carriers are used for the LNG transport. At the receiving terminal, the LNG is then regasified and distributed as pipeline natural gas.

Block 2 enables Tanzania to become an important LNG exporter in East Africa

- Equinor has been the key contributor in developing a successful national oil and gas industry in Norway and we are ready to contribute to the industrialization of Tanzania, aiming for the country to become an important LNG exporter in East Africa.

- Equinor as the operator, has carried out thorough technical work throughout the years confirming the technical feasibility of the project. We are confident that by collaborating with the Government of Tanzania we can develop an internationally competitive LNG project.

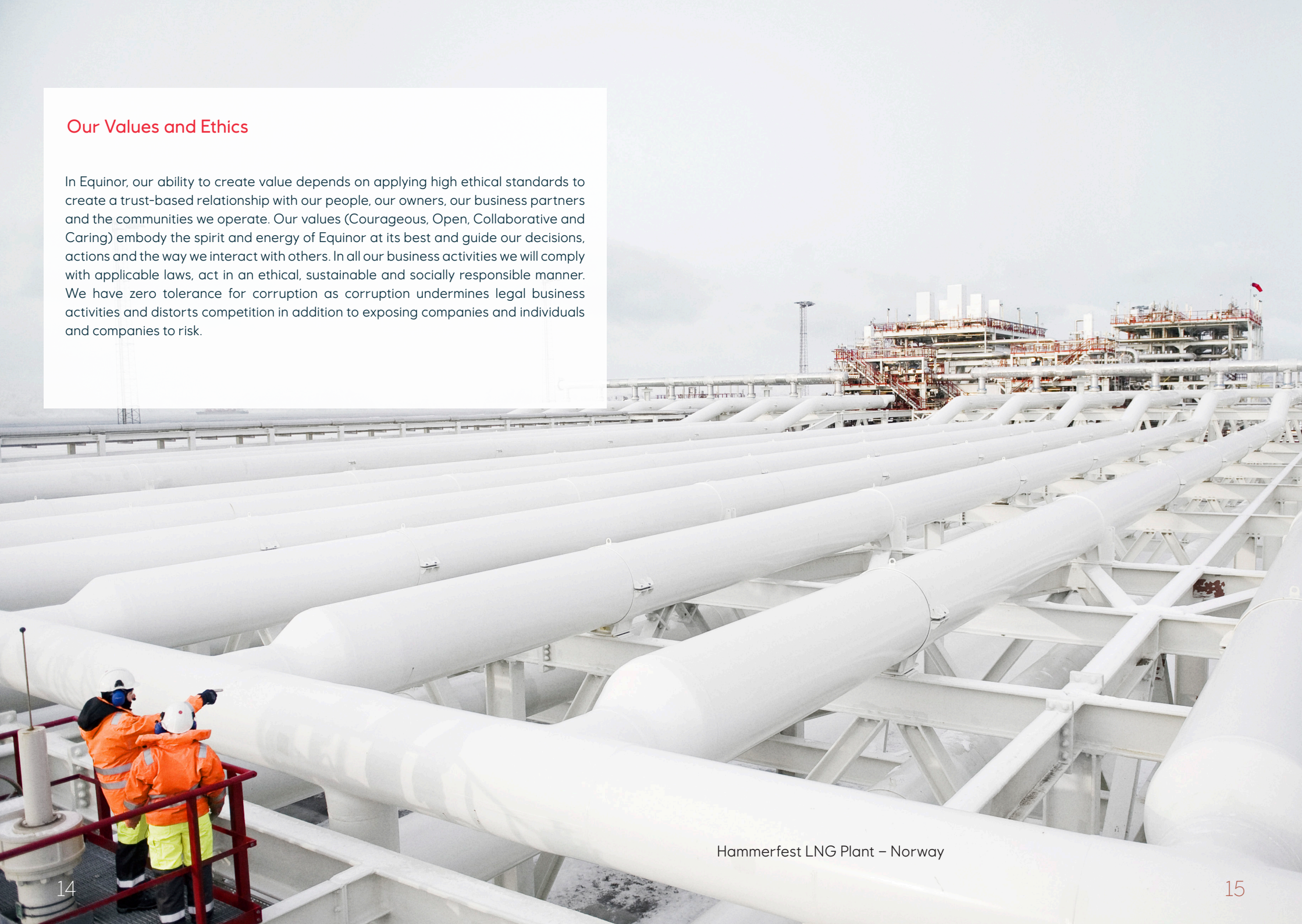
- More than 60% of the value creation of the project will remain in Tanzania. This is a high share compared to other countries and projects around the world.

- The establishment of key fiscal, legal and commercial terms - Host Government Agreement (HGA) is required before any project activity can start and a final investment decision is made.

- When the HGA key terms are in place, Equinor will then proceed with planning and executing environmental and geotechnical surveys on the LNG site in Lindi.

Our Values and Ethics

In Equinor, our ability to create value depends on applying high ethical standards to create a trust-based relationship with our people, our owners, our business partners and the communities we operate. Our values (Courageous, Open, Collaborative and Caring) embody the spirit and energy of Equinor at its best and guide our decisions, actions and the way we interact with others. In all our business activities we will comply with applicable laws, act in an ethical, sustainable and socially responsible manner. We have zero tolerance for corruption as corruption undermines legal business activities and distorts competition in addition to exposing companies and individuals and companies to risk.



Hammerfest LNG Plant – Norway

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