

## our refineries



In Italy, **eni refining & marketing** is the leading operator in the refining industry and owns five refineries: Sannazzaro de' Burgondi (PV), Livorno, Porto Marghera (VE), Taranto and Gela.

It has shares in the Milazzo Refinery and in the European companies Bayern Oil and PCK (Germany) and in Ceska Rafinerska (Czech Republic). In addition, it produces lubricants and oxygenated products for fuels.

Through **eni trading & shipping**, r&m operates in the crude oil and product trading market, both with fixed-term contracts and in the spot market, in order to ensure the supply of raw materials to meet the needs of the entire refining system and to ensure the marketing of the entire equity crude production of the **exploration & production** sector.

For the transportation and storage of onshore products, **eni** has an integrated logistical structure made up of a network of oil pipelines and a system of directly-managed proprietary storage sites in Italy.

The refined products are sold through a network of sales outlets targeted at drivers (over 4,500 service stations in Italy and over 1,600 in Europe) and through the wholesale sales force, targeted at residential, transportation, industrial and agricultural market segments.

**eni** is a major integrated energy company, committed to growth in the activities of finding, producing, transporting, transforming and marketing oil and gas. The company has global operations in 90 countries and employs about 78 thousand people.

**eni's** strong presence in the gas market and in the liquefaction of natural gas, consolidated skills in the power generation and refinery activities, strengthened by world class skills in engineering and project management, allow the company to catch opportunities in the market and to realize integrated projects.

## eni's activities

### exploration & production

**eni** explores, develops and produces oil and natural gas mainly in Italy, Norway, North and West Africa, the North Sea, the United States, Latin America, Australia and in high potential areas such as Mozambique, the Caspian Sea, the Middle and Far East, Kenya, Liberia, Vietnam, Cyprus, and Russia. In 2012 hydrocarbon production averaged 1.701 million boe/day. Net proved reserves at December 2012 amounted to 7.17 billion boe.

### gas & power

**eni** engages in natural gas supply, regasification, transport, trading and marketing, power generation and electricity sales. In 2012 overall sales amounted to 95.32 billion cubic meters of natural gas and 42.58 terawatt-hours of electricity.

### refining & marketing

**eni** engages in oil product refining and marketing mainly in Italy and Europe. With the **eni/agip** brand, it is the Italian market leader in the distribution sector. In 2012 retail sales in Europe of refined products totalled 10.87 million tonnes. In the same period, refining throughputs were 30.01 million tons.

**eni's** business model for the creation of sustainable value is based on assets and strategic guidelines in a framework of clear rules of governance, with the highest ethical standards and rigorous enterprise risk management. When implementing its strategy and running its day-to-day operations, **eni's** efforts are inspired by these key drivers: cooperation, integration, innovation, excellence, inclusion, responsibility

In 2013, **eni** confirmed its presence in the Dow Jones Sustainability World and Europe indexes. In addition, **eni** entered the 2012 Carbon Performance Leadership Index, the only company present from the Energy sector.

### syndial

**syndial**, an **eni** company, carries out remediation and environmental recovery activities, promoting the use of advanced and sustainable technologies. The mission is to provide an integrated service in the field of environmental remediation through procurement, engineering and project implementation and waste logistics. Today, **syndial** operates in about 50 proprietary brownfield areas, some of which are of national interest.

### enipower

**enipower** (100% **eni**) with an installed capacity of 5.3 GW, is among the leading national producers of electricity, thanks to the eight plants at the petrochemical sites in Brindisi, Ferrara, Mantua and Ravenna, and in the refineries of Ferrara Erbognone (PV), Livorno and Taranto and at the cogeneration site in Bolgiano.

### chemicals

**versalis** (**eni** 100%) produces and sells a wide range of chemical products and holds a significant market share in Europe where it owns technologically-innovative third-generation plants. It also boasts an efficient international distribution network. In 2012, production reached over 6 million tonnes; **versalis** operates on an international scale and is committed to chemistry from renewable sources for the production of organic products which will add to and expand the company's portfolio.



eni spa  
Piazzale Enrico Mattei, 1  
00144 Rome - Italy  
Ph.: +39.06.598.21 - Fax: +39.06.598.221.41  
eni.com

eni refining & marketing  
Venice Biorefinery  
Xxxx - 0000 Xxx  
Ph.: +39.0000.000 +39.000.0000  
Fax: +39.000.000

Davide Forleo per eni

eni refining & marketing the Venice Biorefinery

Il mondo va avanti.  
ma a ritmo sostenibile



eni  
eni.com



# the Venice Biorefinery

The refinery was built as a private venture in 1926 under the name DICSA (Società Anonima Distillazione Italiana Combustibili), just as the first wave of industrialisation arrived at Porto Marghera.

In 1947 a company called IROM was established (Industria Raffinazione Olii Minerali - Mineral Oil Refining Industry) with the participation of AGIP and AIOC (the Anglo Iranian Oil Company); the damage caused to the refinery during the war made it necessary for the plant to be rebuilt. In 1978 the refinery became wholly owned by **eni**. In 2014 it was transformed into a Biorefinery through the implementation of the "Green Refinery" project

## connection with the local community

The **eni** Venice Refinery has always been a landmark for the area and the surrounding community.

The memory of the IROM brand will live on in older people, which has been replaced by the "six-legged dog" in the minds of newer generations.

Over the years, a collaborative relationship has been established between the refinery and the academic world that has allowed several students to write theses on related topics, drawing on the experience and professionalism of the staff and the know-how of the company.



## resources

The real assets of the **eni** Venice Biorefinery are its people. They allow the plant to achieve its business objectives within the primary perspective of safety and environmental protection.

Ongoing training helps maintain the highest quality standards, sustainable production and maximum safety for employees and the surrounding community.

## sustainability

The **eni** Venice Biorefinery carries out its activities whilst respecting with the health of its employees and contractors, guaranteeing the safety of operations and facilities, protecting the environment and minimising the impact of these activities.

The Biorefinery provides a medical service that is operated by qualified personnel who use properly equipped dedicated facilities and provide assistance to **eni** staff and employees of contractors operating in the Biorefinery. The **eni** Venice Biorefinery also has its own emergency teams who are

specifically equipped with and trained in the use of the various emergency vehicles provided at the plant, along with the fire prevention system, consisting of more than 16 km of pipes.

# production cycle

## our commitments

The **eni** Venice Biorefinery strives for continuous improvement of its performance in the field of health and safety at work and environmental protection.

For the management of the environmental aspects, the plant has adopted a management system which complies with the requirements of the ISO 14001 Standard (certification obtained in 1999, the first in Italy) and EMAS regulations (registration achieved in 2003, the first in Italy and the fourth in Western Europe). In terms of the safety aspects in the prevention of major accidents, a SGS-RIR Management System was adopted

in 2000 which complies with the requirements of Legislative Decree no. 334/99 and Ministerial Decree 9/8/2000. The Refinery has also implemented an Integrated Management System conforming to OHSAS 18001 standards for Health and Safety in the workplace (certification awarded in December 2012). **eni**'s Venice refinery was the first in Europe to achieve ISO 16001 certification (December 2010) for its energy management system, and also obtained ISO 50001 certification in 2011.

## green refinery: the technological challenge

The Venice refinery saw the world's first ever conversion of a conventional mineral oil refinery into a Biorefinery. Using an **eni** patent, it is capable of obtaining new concept and very high quality biofuels from first, second and third generation renewable sources.

At the heart of the Green Refinery project is the complete reconfiguration of the Venice refinery to enable the use of ecofining technology, developed and licensed by **eni** together with the American company UOP, at a reasonable cost.

The Venice Green Refinery is reconfigured to produce innovative Green Diesel with physical and chemical properties that are far superior to the biofuels already available on the market.

In particular, the hydrogenating ecofining technology produces a biofuel without oxygen with a high cetane number which is perfectly miscible with mineral diesel. This last property in particular means that high-quality fuels can be put on the market with excellent engine and environmental performance.

In addition to Green Diesel, the Biorefinery also produces other biofuels such as Green Nafta, Green LPG and, in the future, also Green Jet.

The success of the production plant's conversion project is a result of **eni**'s commitment to innovation through the development and implementation of distinctive environmental technologies that ensure an economically sustainable industry in the long term.