

Summary



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1 IREN at a glance



IREN Group

IREN, a multiutility company listed on the Italian Stock Exchange, operates in the sectors of:

- electricity (production, distribution and sale)
- thermal energy for district heating (production and sale)
- gas (distribution and sale)
- management of integrated water services
- environmental services (collection and disposal of waste)
- services for the local authorities

In its daily business, the IREN Group pursues important goals such as sustainable development and environmental protection, quality and continuous improvement, technological innovation and efficiency in all services provided, thus contributing to the development of the areas in which it operates and directing its efforts towards fully satisfying its customers, shareholders and the general public.

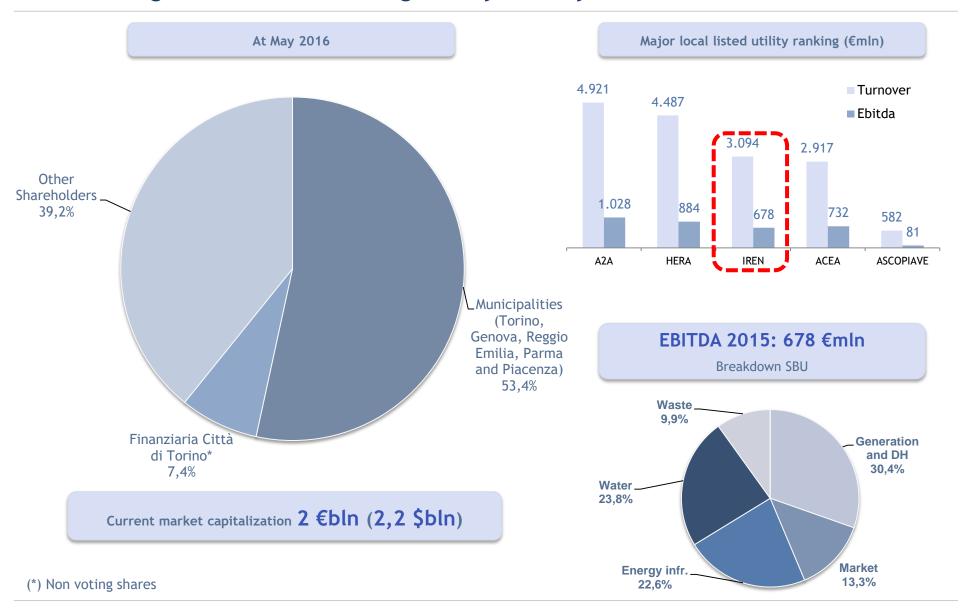
IREN Group intends to exploit its know-how looking at development opportunities that could arise in its areas, in Italy and abroad



Over **6.200** employees



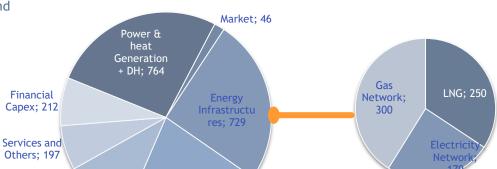
Shareholding structure and ranking in Italy's utility market





Economics

- Over **2,8 € bln** invested in 2009-2015
- Almost 2/3 invested in the energy sector (generation and infrastructure)
- From 2011 to 2013 entered into operation:
 - □ **2 WTE** (420.000 ton/y and 130.000 tonn/y)
 - □ 1 cogeneration CCGT (400 MW)
 - ☐ **1** LNG **FSRU** (3,75 bln m³/y)



Water

Services; 629





Capital Expenditure 2009-2015

Environmen t; 299

^{*} Change in accounting consolidation methods due to IFRS11



IREN - Key drivers



ELECTRICAL ENERGY

2,7 GW of installed capacity8,1 TWh produced in 201512,4 TWh sold in 20154,0 TWh distributed



WATER SERVICES

Integrated water cycle management to 2,6 mln inhabitants

162 mio m³ distributed in 2015

24.500 km of pipelines



DISTRICT HEATING

6 co-generation plant
825 km of DH pipelines
2,9 TWh heat produced in 2015
1st operator in Italy with 760.000 served
inhabitants



NATURAL GAS

0,8 mln final users
7.634 km network
1 regasification LNG terminal, 3,75 bln cm/y
of authorized capacity (41,7% IREN stake)



ENVIRONMENT

3 WTE managed
1,75 mln tons treated in 2015
Waste collection in more than 100 towns



OTHER SERVICES

133.000 street lighting point
19.000 traffic lights
Facility management and global service

2 Business sectors overview



Power and heat generation assets

IREN Group has a strong experience in electricity and heat generation that started in 1907 and has grown through several green and brown fields projects till nowadays. In 2015 the energy and heat generation business area generated an EBITDA of 199 million euros, equivalent to 30,4% of the EBITDA of the whole Group.

Orco Valley (IREN Energia)

• 6 hydroelectric plants (296 MW_e, production 750 GWh/v)

Susa Valley and Turin (IREN Energia)

3 hydroelectric plants (168 MW_e, production 400 GWh/y)

Brugneto and Canate (CAE)

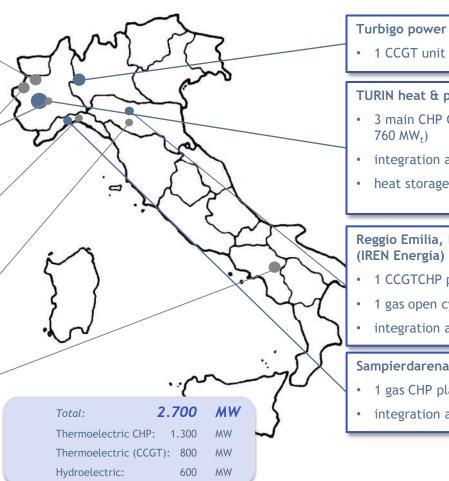
• 2 hydroelectric plants (10 MW_e, production 45 GWh/y)

Baiso (IREN Ambiente)

• 1 hydroelectric plant (1 MW_e, production 8 GWh/v)

Tusciano plants (IREN Energia)

7 hydroelectric plants (110 MW, production 250 GWh/y)



Turbigo power plant (IREN Energia)

• 1 CCGT unit (800 MW_e)

TURIN heat & power center (IREN Energia)

- 3 main CHP CCGT units (1.200 MW_a and
- integration and back-up boilers (991 MW_t)
- heat storage units (12.500 m³)

Reggio Emilia, Parma and Piacenza plants

- 1 CCGTCHP plant (63 MW_a 54 MW_t)
- 1 gas open cycle (19 MW _e)
- integration and back-up boilers (330 MW_t)

Sampierdarena plant (IREN Energia)

- 1 gas CHP plant (29 MW_e 30 MW_t)
- integration and back-up boilers (38 MW_t)



Cogeneration, thermal and thermoelectric production

Cogeneration Production

Almost the entire production of heat is granted by high efficiency CHP plants (Combined Heat and Power) allowing tremendous environmental benefits in areas served by its networks and an adequate remuneration of capital employed.



Moncalieri CCGT Plant (Torino)

- 2 CCGT plants
- 800 MW_e (full electric mode)
- 520 MW, (full cogenerative mode)
- Electric efficiency: 57-58%
- Overall efficiency: 88-90%



Torino Nord CCGT Plant (Torino)

- 1 CCGT plant
- 400 MW_e (full electric mode)
- 240 MW_t (full cogenerative mode)
- Electric efficiency: 56%
- Overall efficiency: 85%

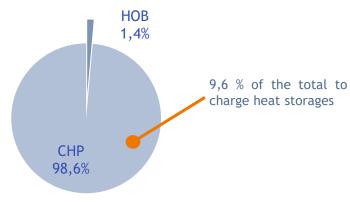


Other cogenerative plants (Reggio Emilia and Genoa)

- Reggio Emilia: 2 plants producing 81 MW_e overall (63 MW_e combined cycle, 19 MW_e conventional cycle)
- Genoa: combined cycle (29 MW_e, 30 MW₊)

Thermal Production for DH

In addition to the cogeneration heat produced, IREN grants integration and reserve thermal capacity for its District Heating systems with HOB and $storage\ plants$ (over 1.300 MW $_t$ installed, 12.500 m 3 heat storage capacity).



Thermal Season 2013/2014

Electric Production



Turbigo Plant (Milano)

 A CCGT unit with post combustion made up of two gas turbines and one steam turbine, for a total capacity of 800 MW.



Energy Infrastructure

The IREN Group operates in the **energy infrastructure** business area through the management, renovation and development of the distribution networks of electricity, gas and district heating, as well as the construction of regasification plants that will increase the Group's independence in its gas supplies.

Electricity distribution



- Electricity distribution network: 7.555 kilometers
- Electricity distributed: 3.945
 GWh
- Electricity distribution customers: 740.000

Gas distribution



- Gas distribution network:7.634 kilometers
- Gas distributed: 1.208
 million cubic meters
- Gas distribution customers: 770.500

DH distribution



- DH network: 883 kilometers
- DH volume: 82 million cubic meters
- Population served: 820.000

LNG FRSU



regasification capacity of 3,75 billion cubic meters per year, the new plant can cover 4 % of Italy's annual gas needs, helping to make Italy's energy procurement more secure in the process.

In 2015, the energy infrastructure business area generated an EBITDA of 148 million euros,

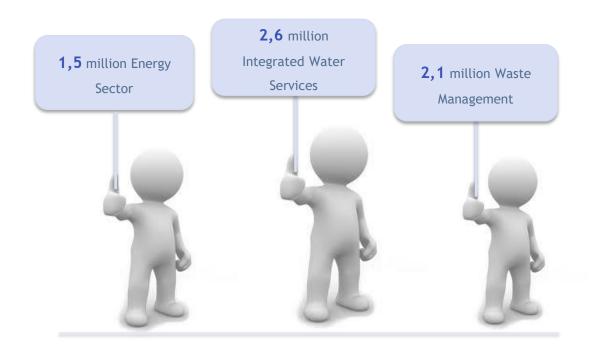
equivalent to **22,6%** of the EBIDTA of the whole Group.



Market

The IREN Group operates in the Market business area across the whole of Italy but with a higher concentration of customers in the north of the country. The Group is active in the **supply**, **intermediation** and **sale of electricity**, **gas** and **heat** and in the provision of the **customer service**.

Customer/Citizens



In 2015, the market business area generated an EBITDA of **87 million euros**, equivalent to **13,3%** of the EBIDTA of the whole Group.



Integrated Water Service

The IREN Group's activity in the integrated water service business area consists of the design, construction, operation and maintenance of captation, treatment, storage and pumping plants and networks for the supply, distribution and connection for the water mains service, the sewage service and the waste water treatment plants. In addition, it checks the quality of drinking water and waste water drainage on the basis of the laws in force.

Water mains system:

- network of more than 16,468 kilometres
- water distributed: about 162 million cubic metres of water from heterogeneous supply sources (reservoirs, springs, surface watercourses, water table)

Waste water management service:

network of about 9,274 kilometres







IREN Acqua Gas website

In 2015, the water service business area generated an EBITDA of **156 million**

euros, equivalent to **23,8%** of the EBIDTA of the whole Group.



Waste Management

In the environment business area, the IREN Group manages the **entire waste cycle**: collection, with particular focus on differentiated waste collection, treatment and disposal.



Urban and similar waste collection service:

- 123 municipalities
- over 2.050.000 inhabitants



In addition, the Group handles the treatment and disposal of special and hazardous waste coming from production activities.



In 2015, environmental business area generated an EBITDA of **65 million euros**, equivalent to **9,5%** of the EBIDTA of the whole Group.



Technological services

In the technological services business area, the IREN Group is active in the management of **public lighting systems**, **traffic light systems**, **heating**, **electrical and special systems**, in the **global service field** and in the management of **telecommunication infrastructure**.



In the public lighting service, the Group handles over
 133.000 lighting installations in the cities of Turin and Parma.



In the field of traffic light
 systems, IREN handles over
 19.000 traffic lights.

The **telecommunications infrastructure and connectivity** are managed through subsidiaries in the cities of Parma, Piacenza, Reggio Emilia and Turin.



- In the field of integrated services, in Turin, the Group manages the heating, electric and special systems of the 800 municipal buildings, equivalent to almost 8% of the buildings in Turin.
- In Genoa, the activities managed concern the operation of 800 heating, air-conditioning and technological systems.



Smart Cities

IREN, through its know-how and its technology networks, is an optimal partner for the development of **Smart City Project**. Following here a series of fundamental concepts for the realization of the project:

- ZERO Emissions
- Automated City area urban environment quality evaluation
- New sustainable neighborhoods
- Low emission housing and offices
- Electricity bill reduction
- Solar power on the building roofs
- Urban biowaste energy sources
- Geothermal Energy for building
- Public electric grid efficiency
- Building networks to increase efficiency
- Heat or cold «as long as it's from the grid»
- Continuous lighting without waste
- Learning from energy efficiency



