



Focus Area

DECARBONISATION

ACTIONS CARRIED OUT IN 2019

FUTURE OBJECTIVES

REDUCTION OF EMISSIONS:

- -1% direct CO2 emissions from energy production plants compared to 2018
- +31% CO2 emissions avoided through waste recovery compared to 2018
- 20.500 tCO2 avoided through improving the efficiency of public street lighting
- 12.744 tCO2 avoided through heat storage systems 76% of energy produced from renewable sources or similar
- prosecution of redevelopment works on the hydroelectric plants of Chiomonte and Susa
- investments in renewable resources.

ENERGY EFFICIENCY:

- -7% of tonnes of equivalent oil (TOE) compared to 2018
- 5.689 TOE saved by LED lighting systems
- 12 energy redevelopment projects launched for public and private buildings
- high energy efficiency pumps in the main sewage pumping stations with estimated energy savings of over 36%
- completion of the "alternating cycle" process trial on the water treatment plants (estimated energy saving of around 40%)
- opening of the first biomethane from purification sludge fuel station in Reggio Emilia and monitoring of biomethane-powered vehicles.

REDUCTION OF EMISSIONS:

- -3% direct CO2 emissions from energy production plants by 2024 compared to 2018
- 56% CO2 emissions avoided through waste recovery by 2024 compared to 2018
- 18.350 tCO2 avoided by 2024 through improving the efficiency of public street lighting
- 29.800 tCO2 avoided by 2024 through heat storage system
- investments in the hydroelectric sector with reduction in emissions of around 5,400 tCO2 by 2024.

ENERGY EFFICIENCY:

- -20% of tonnes of oil equivalent (TOE) by 2024 compared to 2018
- 7.200 TOE saved by LED lighting systems by 2024
- 40 additional energy redevelopment projects launched for public and private buildings by 2020
- cost-benefit analysis of the replacement of pumps at minor sewage pumping stations and relative installation and operation
- implementation of alternate cycle process on two water treatment plants.



Focus Areas

CIRCULAR ECONOMY

ACTIONS CARRIED OUT IN 2019	FUTURE OBJECTIVES
<p>EXPANSION OF SORTED WASTE COLLECTION AND REDUCTION OF WASTE:</p> <ul style="list-style-type: none">+8% sorted waste collection (kg/inh/y) compared to 2018-6% unsorted waste collection (kg/inh/y) compared to 2018.	<p>EXPANSION OF SORTED WASTE COLLECTION AND REDUCTION OF WASTE:</p> <ul style="list-style-type: none">+8% sorted waste collection (kg/inh/y) by 2024 compared to 2018-24% unsorted waste collection (kg/inh/y) by 2024 compared to 2018.
<p>Extension of “pay-as-you-throw” systems for waste management services to 212,000 residents (Reggio Emilia, Correggio, Carpaneto and Rubiera).</p>	<p>Extension of “pay-as-you-throw” systems to a further 85,000 residents.</p>
<p>INCREASE IN WASTE RECOVERY:</p> <ul style="list-style-type: none">+145.000 tons of waste treated compared to 2018 thanks to the acquisition and development of new plantsauthorisation of three new plants for the treatment of organic waste with biomethane productionauthorisation of two new paper and plastic treatment and recovery plants.	<p>INCREASE IN WASTE RECOVERY:</p> <p>+1,2 million tons of waste treated in Group plants by 2024 compared to 2018.</p>
<p>INCREASE IN WASTE-TO-ENERGY PRODUCTION:</p> <p>+2,6% MWh per ton of waste treated compared to 2018.</p>	<p>INCREASE IN WASTE-TO-ENERGY PRODUCTION:</p> <p>+3% MWh per ton of waste treated by 2024 compared to 2018.</p>

SUSTAINABLE USE OF WATER RESOURCES

ACTIONS CARRIED OUT IN 2019	FUTURE OBJECTIVES
<p>REDUCTION IN WATER WITHDRAWALS FROM THE ENVIRONMENT FOR DRINKING WATER DISTRIBUTION:</p> <ul style="list-style-type: none">1.4% fewer water network leaks in traditional areas compared to 2018-1% of water withdrawals per resident/day in traditional areas compared to 201852,1% of water network divided into districts.	<p>REDUCTION IN WATER WITHDRAWALS FROM THE ENVIRONMENT FOR DRINKING WATER DISTRIBUTION:</p> <ul style="list-style-type: none">5% reduction in network leaks by 2024-5% water withdrawals per resident/day in traditional areas by 2024 compared to 2018division into districts of 76% (56% by 2020) of the water network .
<p>Qualitative and quantitative improvement of the waste water treatment capacity:</p> <ul style="list-style-type: none">0.3% increase in waste water treatment capacity of the plants (PE) compared to 2018pollutant reduction in treated water: 94.4% BOD, 91.6% COD and 93.4% SST.	<p>QUALITATIVE AND QUANTITATIVE IMPROVEMENT OF THE WASTE WATER TREATMENT CAPACITY:</p> <ul style="list-style-type: none">16% increase in waste water treatment capacity of the plants (PE) by 2024 compared to 2018pollutant reduction in treated water: 94% BOD, 90% COD and 93% SST by 2024.



Focus Areas

RESILIENT CITIES

ACTIONS CARRIED OUT IN 2019

FUTURE OBJECTIVES

RESILIENT CITIES:

definition of areas of intervention of the Just Iren project (data collection, transfer and processing, movement of waste, programming, logistics, invoicing, etc.), selection of sensors for the waste collection services (containers and vehicles), assessment of sensor integration for plants.

76% of gas smart meters installed to improve the billing systems of the sales companies and monitoring by the customer.

16% of gas smart meters installed to improve the billing systems of the sales companies and monitoring by the customer.

151 distributed solar generation plants.

INCREASE IN DISTRICT HEATING VOLUME:

- +1,3% volumes connected compared to 2018
- prosecution of works to connect the Piacenza waste-to-energy plant to the district heating network
- interventions on the district heating network and on the Turin waste-to-energy plant to connect it with the Grugliasco network
- 15.000 cubic metres of heat accumulation capacity and launch of authorisation procedure for new accumulation systems.

IMPROVEMENT OF THE SECURITY LEVEL OF THE GAS NETWORK:

- gas network inspected: 95% of the high and medium pressure network, 84% of the low pressure network
- installation and entry into service of 10 km of network
- leak searching linked to the replacement of electronic meters
- systematic leak detection in cast iron pipelines with hemp and lead joints
- replacement of 44 earth electrodes for cathodic protection of the steel network
- upgrading of 35 rising mains
- 97,6% of emergency calls with on-site arrival times within 60 minutes.

RESILIENT CITIES:

launch of Just Iren project in Turin in 2020 with the progressive extension of the management system to all area of intervention defined to reduce the impacts of the collection service, logistics, administrative processes, control of services in the local area and the extension of the exact pricing method.

95% of gas smart meters installed by 2024, to improve the billing systems of the sales companies and monitoring by the customer.

35% eco-vehicles on the total Group fleet by 2024.

2.000 distributed solar generation plants by 2024.

INCREASE IN DISTRICT HEATING VOLUME

- +12% volumes connected compared to 2018
- investments in new connections to the district heating network in all areas
- 23.600 mc cubic metres of heat accumulation capacity by 2024
- additional investments for the flexibility of heating systems to guarantee the greater efficiency and respond to the future challenges of the electricity market.

IMPROVEMENT OF THE SECURITY LEVEL OF THE GAS NETWORK:

- gas network inspected: 100% of the network under management
- upgrading of the gas network to replace the most obsolete sections (cast iron and steel pipelines)
- continuation of searches for leaks linked to the replacement of electronic meters
- 99% of emergency calls with on-site arrival times within 60 minutes in the Emilia area
- 97% of emergency calls with on-site arrival times within 60 minutes in the Liguria area.