

## 4. ACCUMULATORS DISTRICT HEATING IN PARMA (PR)

### CATEGORY

Energy efficiency (Energy Distribution and Management)

### LOCATION



### DESCRIPTION

Heat accumulation system serving the Parma district heating network. The Parma district heating network is made up of 98 km of double pipeline, with a connected volume of approximately 5.8 million m<sup>3</sup> as at 31/12/2016. It is powered by thermal energy generated by the following three plants:

- the Environmental Integrated Centre (EIC), made up of a cogeneration vapour-cycle heat recovery section, fed by two waste-to-energy lines and one supplementary section with boilers and natural gas;
- the Plant on Via Lazio, made up of five supplementary and reserve boilers powered by natural gas;
- the Plant on Strada Santa Margherita, made up of two supplementary and reserve boilers, powered by natural gas and a 500 m<sup>3</sup> accumulation system.

The new accumulator system being planned has a volume of 1,200 m<sup>3</sup> and will be installed at the Via Lazio plant. The function of this system is to store the thermal energy produced by the EIC's waste-to-energy cogeneration system thermal power plants when heat demand from the district heating network is lower, in order to transfer it later, when the district heating network has its maximum demand for thermal load, thus reducing the use of supplementary boilers.

The energy contributed by the accumulation system makes it possible to achieve objectives such as increased operating flexibility and commissioning speed, increased flexibility in managing thermal energy flows, saving primary sources and reducing greenhouse gases.

### AMOUNT

Full project amount (2008-2019) (€ millions)	Financeable amount (€ millions)	Financed amount (€ millions)
1.7	1.7	2008-2018: - mln 2019: - mln
		Total - mln



### ENVIRONMENTAL PERFORMANCE INDICATORS

KPI	Unit of measure	2017	2018	2019	2020	2021	2022
Primary energy saving per operating year	MWh				3,180	3,180	3,180
Avoided CO <sub>2</sub> emissions from fossil sources per operating year	t				625	625	625