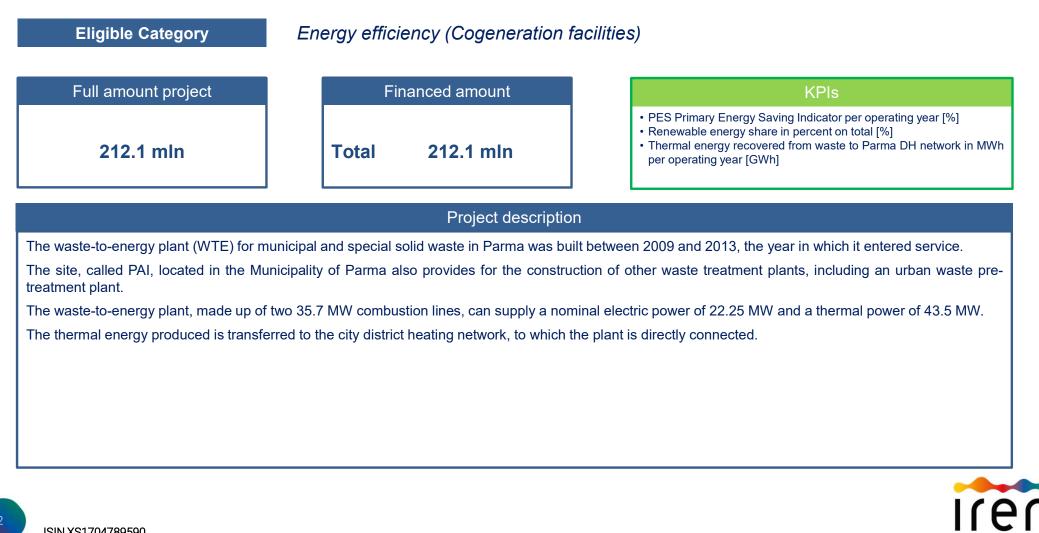
# Green Bond Project (post issue) ISSUED 2017-MATURITY 2027 (ISIN XS1704789590)

February 2018

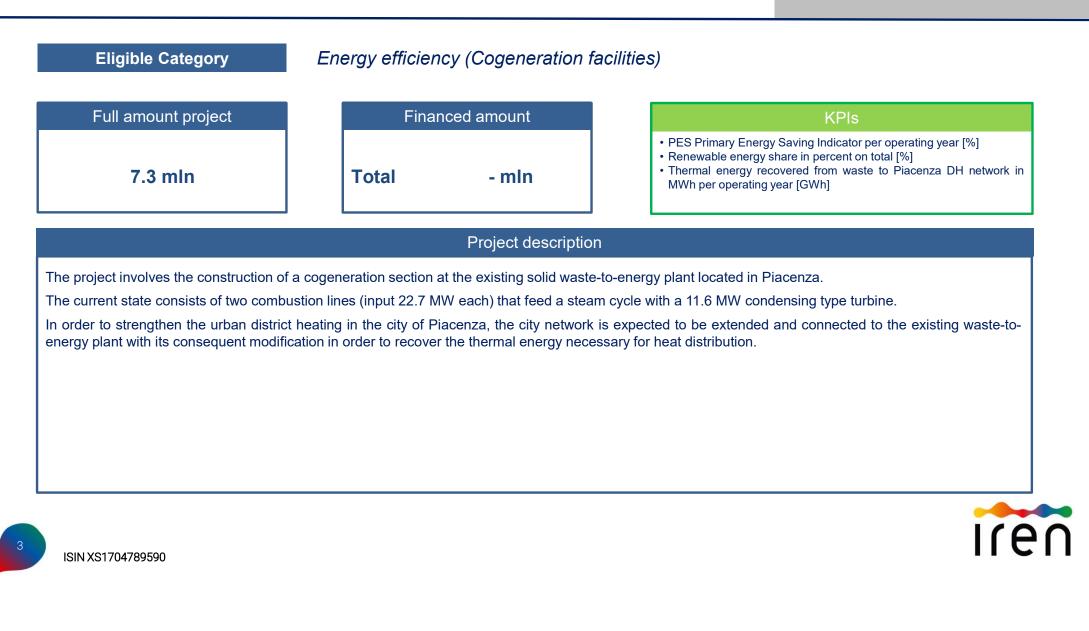
# Waste to energy plant for Heat Production in Parma

#### WASTE MANAGEMENT BU 1



# Waste to energy plant for Heat Production in Piacenza

2 WASTE MANAGEMENT BU



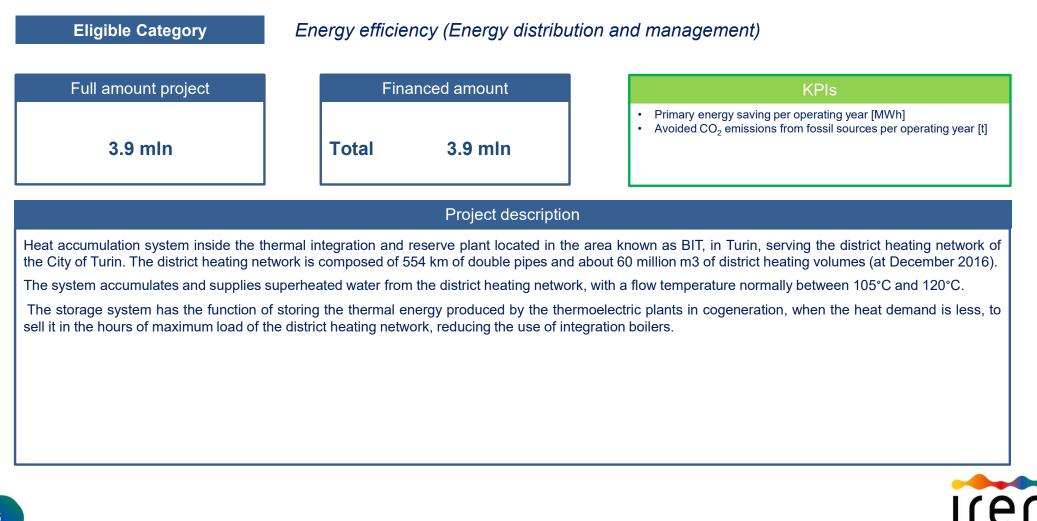
# **Development of separate waste collection services**

3 WASTE MANAGEMENT BU



# Accumulators district heating Bit (TO)

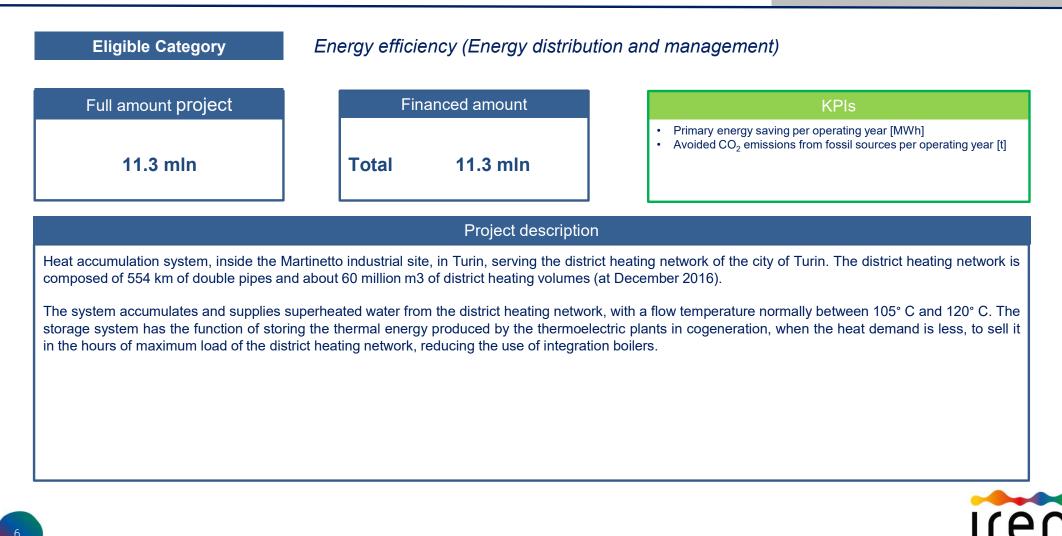
#### 4 ENERGY BU



ISIN XS1704789590

# Accumulators district heating Martinetto (TO)

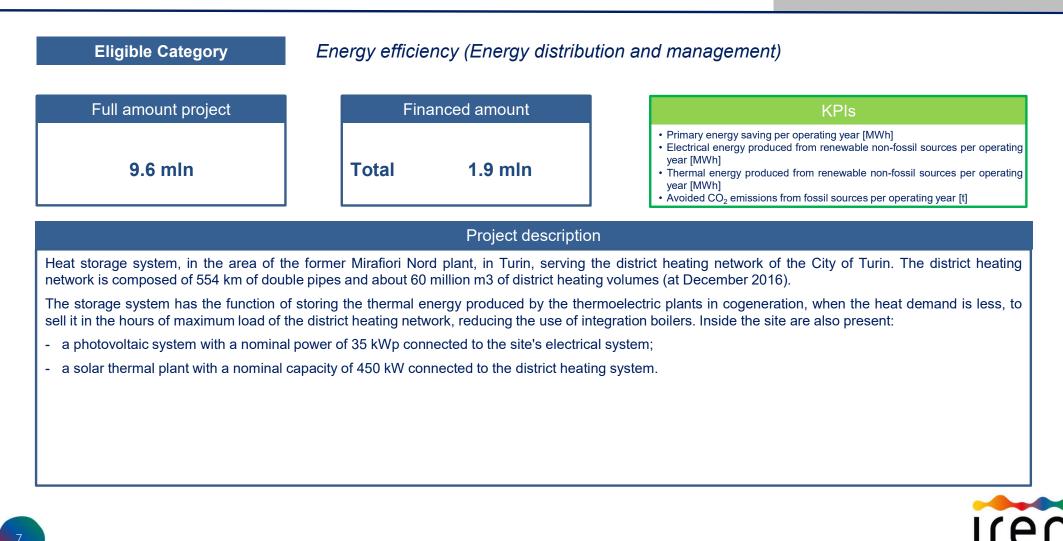
#### 5 ENERGY BU



ISIN XS1704789590

# Accumulators district heating Mirafiori Nord (TO)

#### 6 ENERGY BU

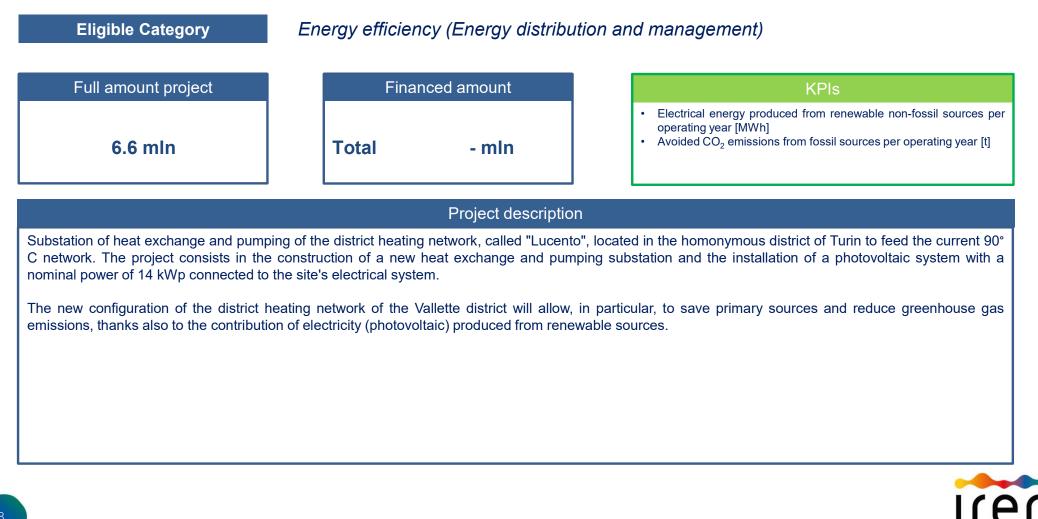


ISIN XS1704789590

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# Heat exchange and pumping substation in Lucento

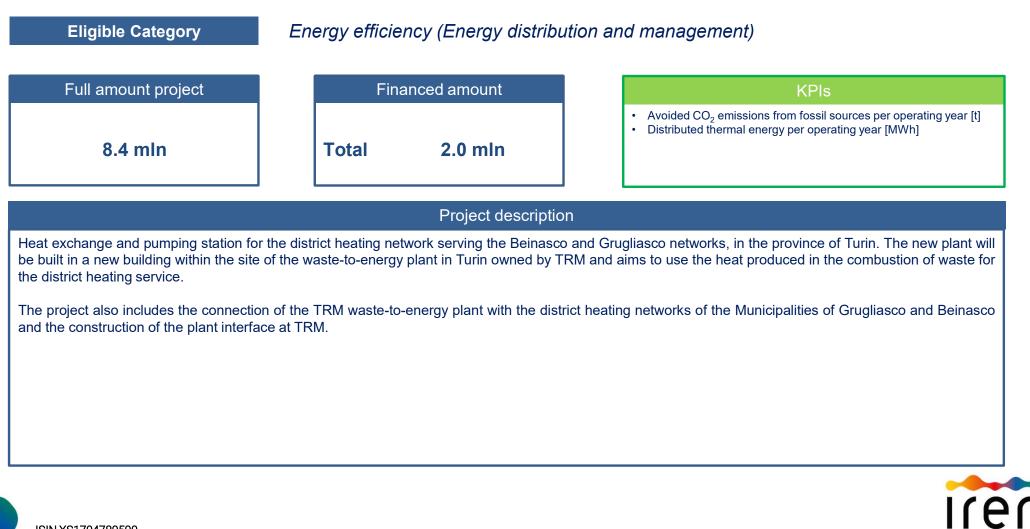
#### 7 ENERGY BU



ISIN XS1704789590

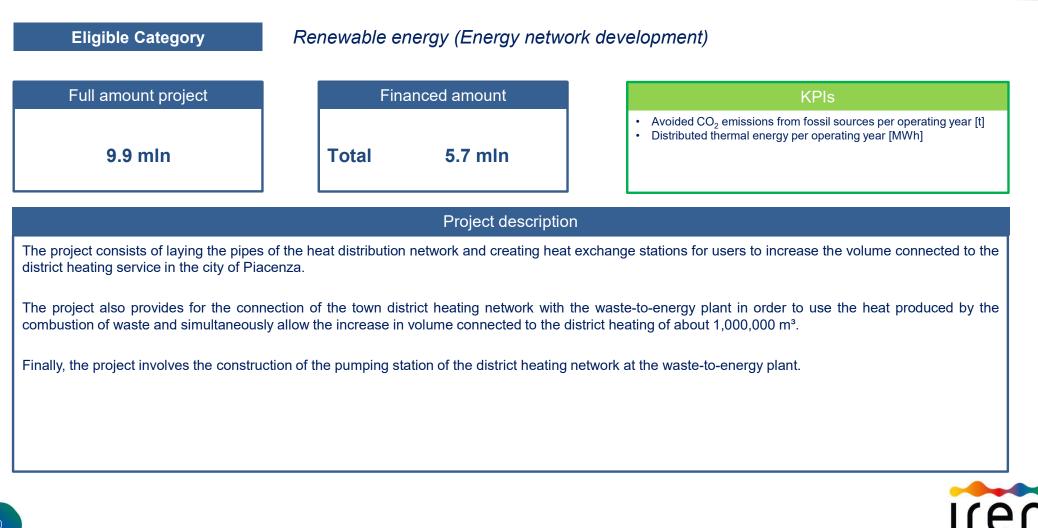
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# Heat exchange and pumping TRM in Grugliasco and interconnection8 ENERGY BUwith Grugliasco and Beinasco

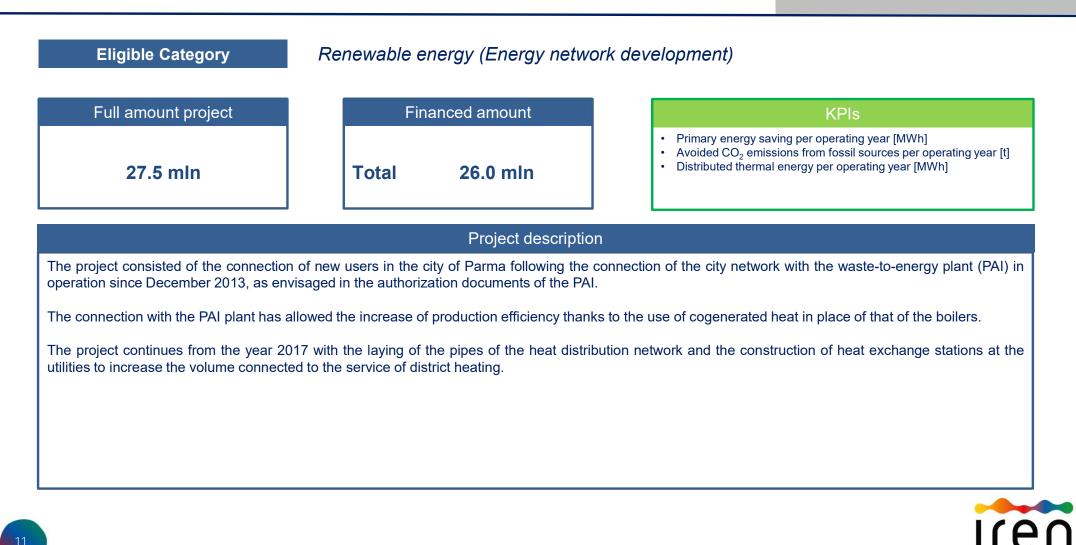


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# Piacenza district heating network, connection and pumping station9 ENERGY BUat WTE

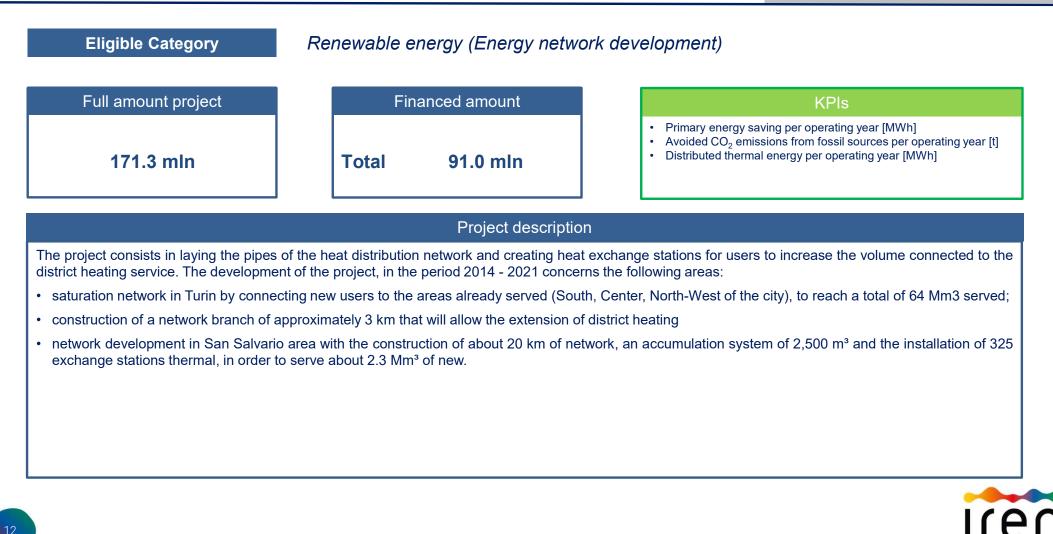


# Parma district heating network



# **District heating networks development in Torino**

#### 11 ENERGY BU



# **District heating networks development in Reggio Emilia Eligible Category** Renewable energy (Energy network development) Full amount project Financed amount **KPIs** • Primary energy saving per operating year [MWh] Avoided CO<sub>2</sub> emissions from fossil sources per operating year [t] Distributed thermal energy per operating year [MWh] 9.9 mln 6.8 mln Total **Project description** The project consists in laying the pipes of the heat distribution network and in the creation of heat exchange stations for the users to increase the volume connected to the service. The estimated increase in volume connected to district heating in the period 2012-2021 for the city of Reggio Emilia is 1 Mm<sup>3</sup> between 31/12/2011 (about 12,670,000 m<sup>3</sup>) and 31/12/2021 (about 13,723,465 m<sup>3</sup>). Iren ISIN XS1704789590

**ENERGY BU** 

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# **Eligible Category** Renewable energy (Mini Hydro Power) Full amount project Financed amount **KPIs** Electrical energy produced from renewable non-fossil sources per • operating year [MWh] Avoided CO<sub>2</sub> emissions from fossil sources per operating year [t] 4.3 mln 4.3 mln Total **Project description** The plant, of the flowing water type, is located near the barrier cross on the Po river in the municipality of La Loggia (TO) and uses the release of the minimum vital flow on the leap existing between the reservoir upstream and the Po level downstream cross. Next to the production plant there is a ladder for the ichthyofauna built with 27 successive tanks and equipped with a visualization and control system (fish counter). The nominal average power of the plant is equal to 644 kW and an average annual electricity capacity of 3.5 GWh/year. Iren

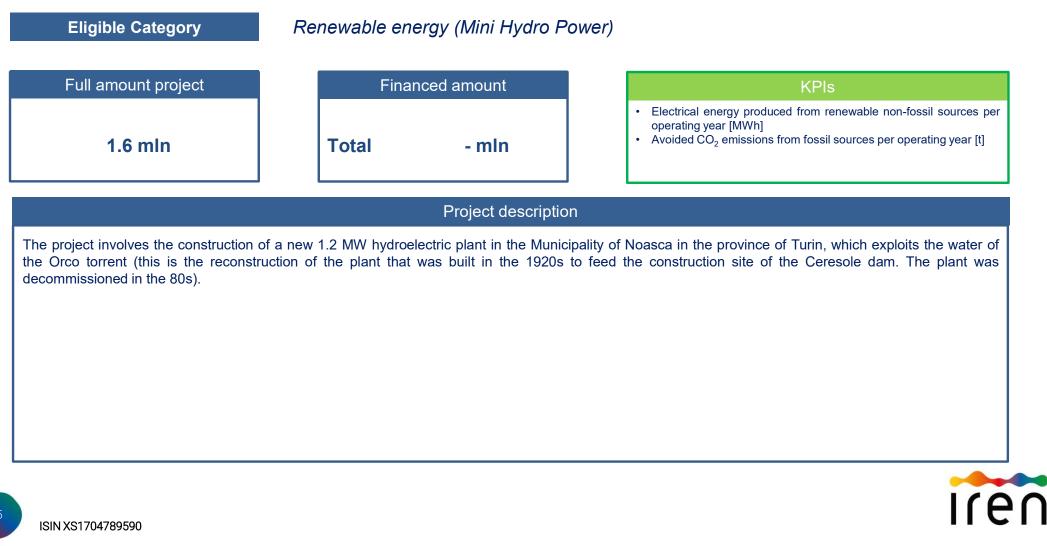
**ENERGY BU** 

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Mini Hydro La Loggia (TO)

# Mini Hydro Pianchette – Noasca (TO)

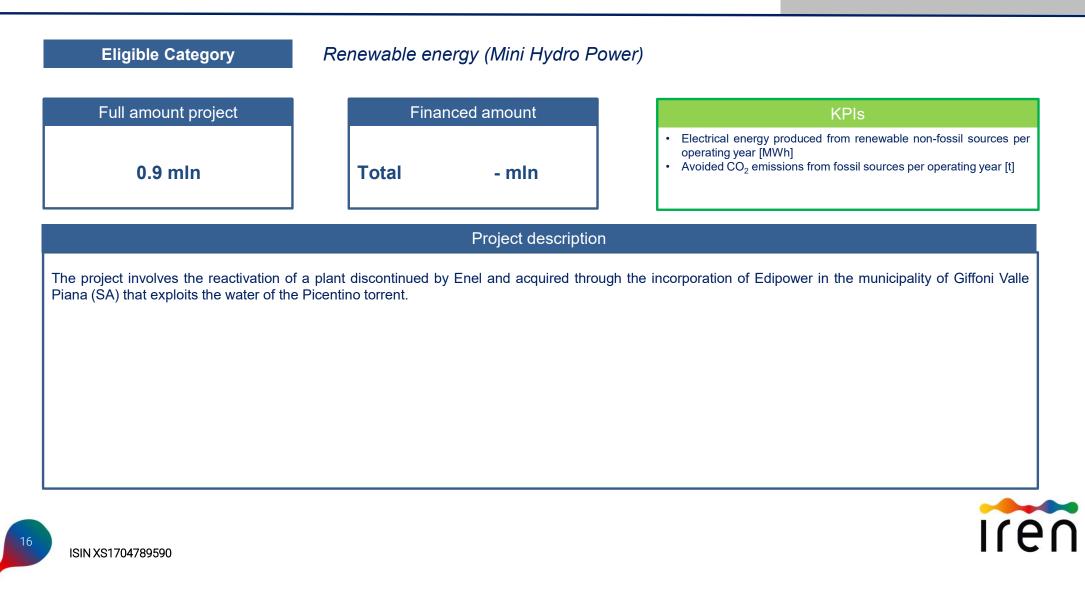
14 ENERGY BU



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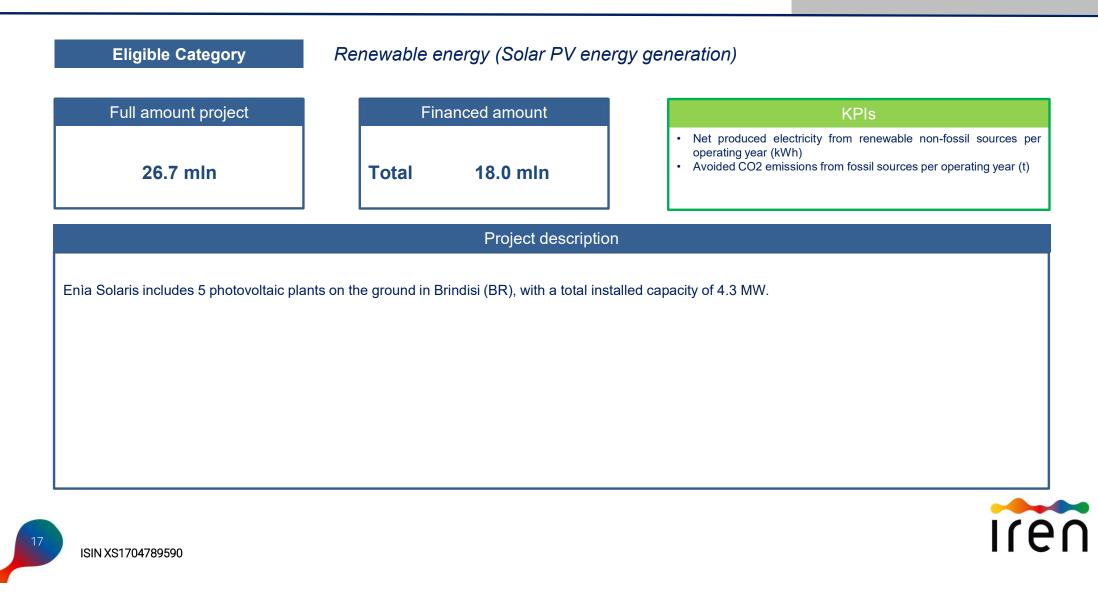
# Mini Hydro Giffoni plant repowering

15 ENERGY BU

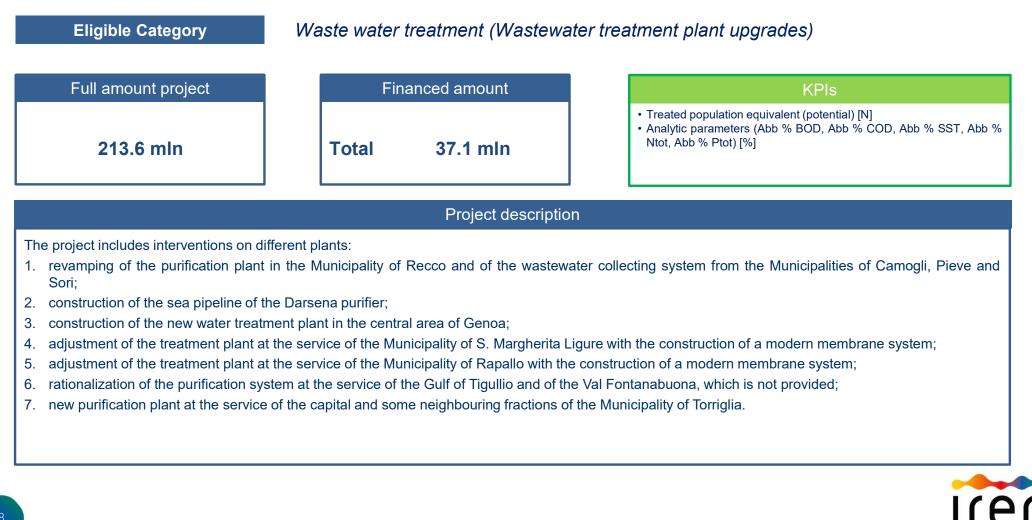


# Enìa Solaris photovoltaic plants near Brindisi

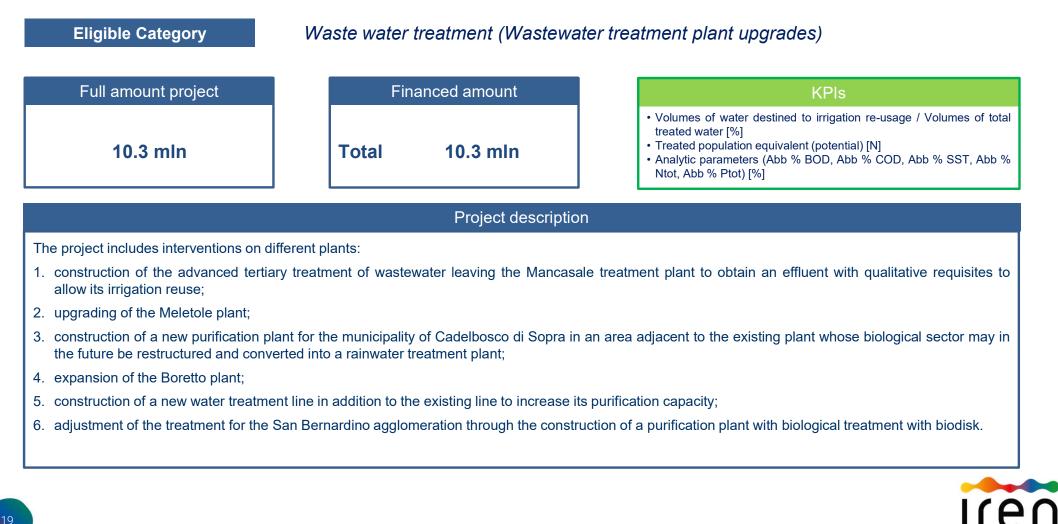
#### 16 ENERGY BU



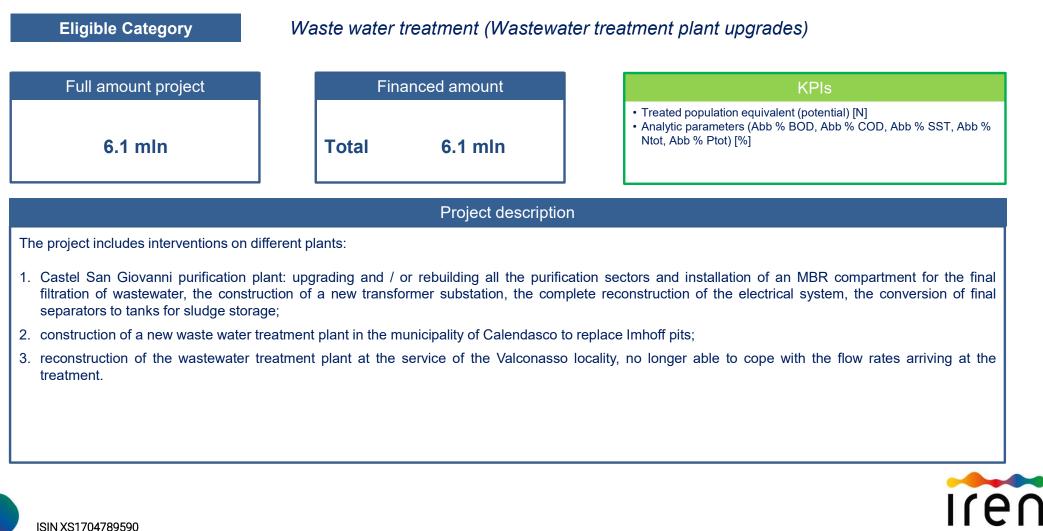
# **Improvement of Genova plants**



# **Improvement of Reggio Emilia plants**

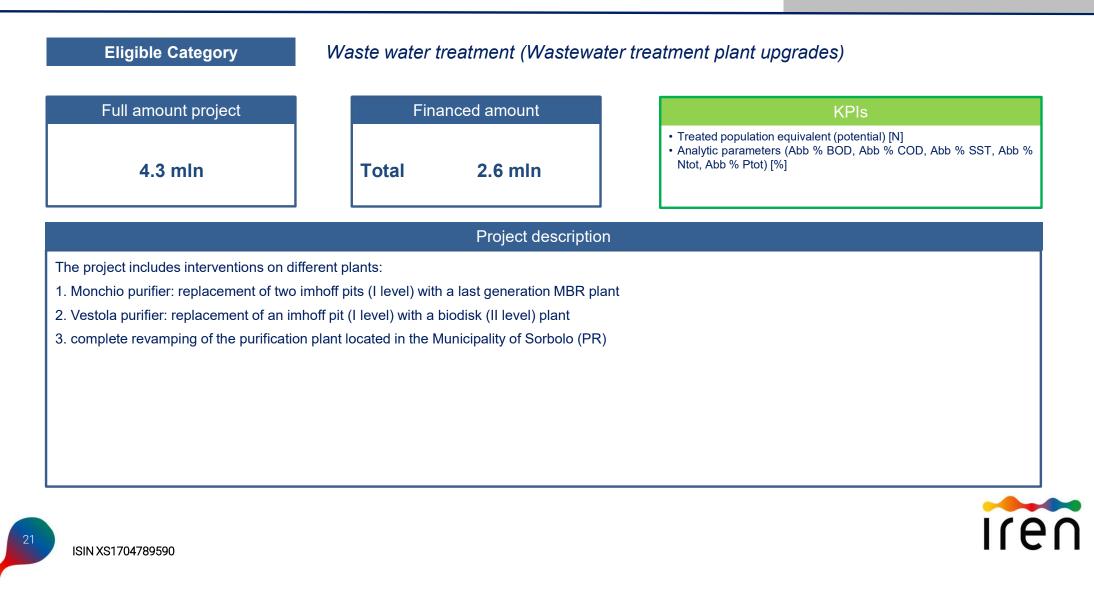


# **Improvement of Piacenza plants**



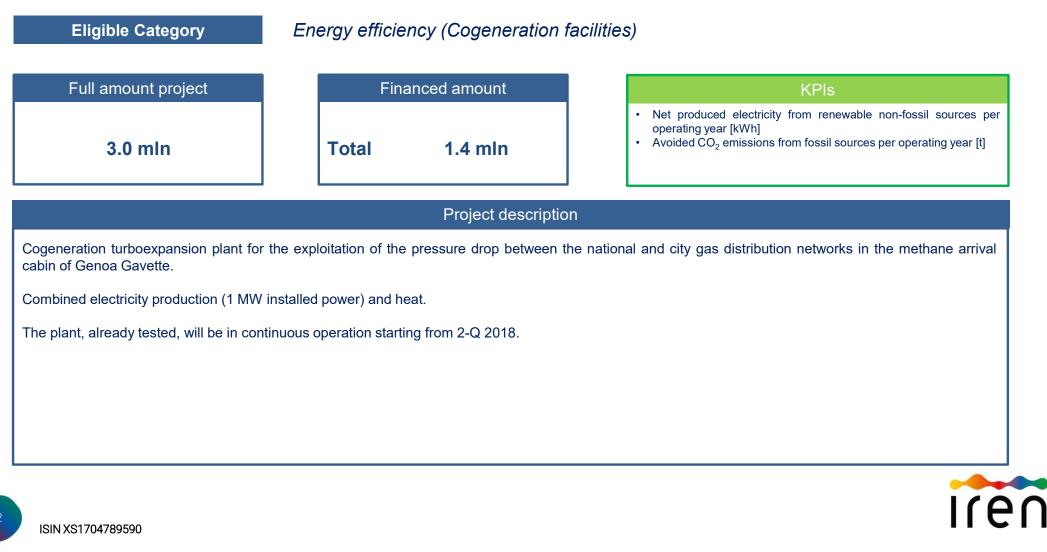
# **Improvement of Parma plants**

#### 20 NETWORKS BU



# Cogeneration turboexpansion plant "Celsius"

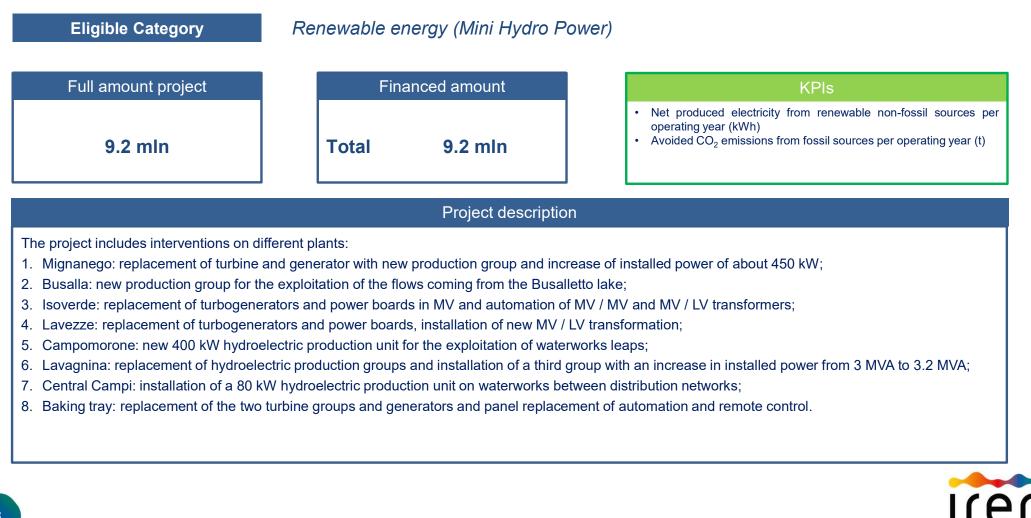
21 NETWORKS BU



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# Hydroelectric investments

#### 22 NETWORKS BU



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