# Green Bond Project (post issue) ISSUED 2018-MATURITY 2025 (ISIN XS1881533563)

March 2020

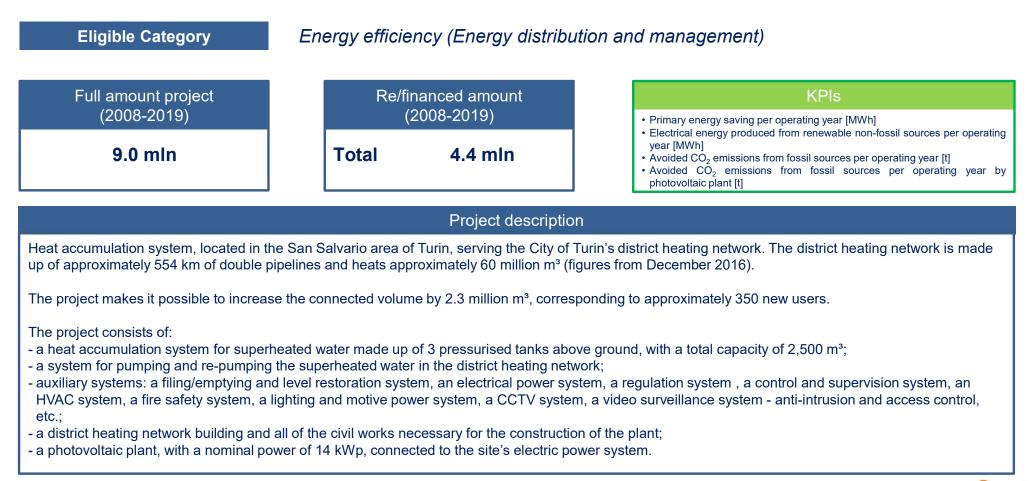
## Revamping Saliceti Plant owned by ReCos company (WDF recovery)

1 WASTE MANAGEMENT BU



## Accumulators district heating in San Salvario (TO)

#### 2 ENERGY BU

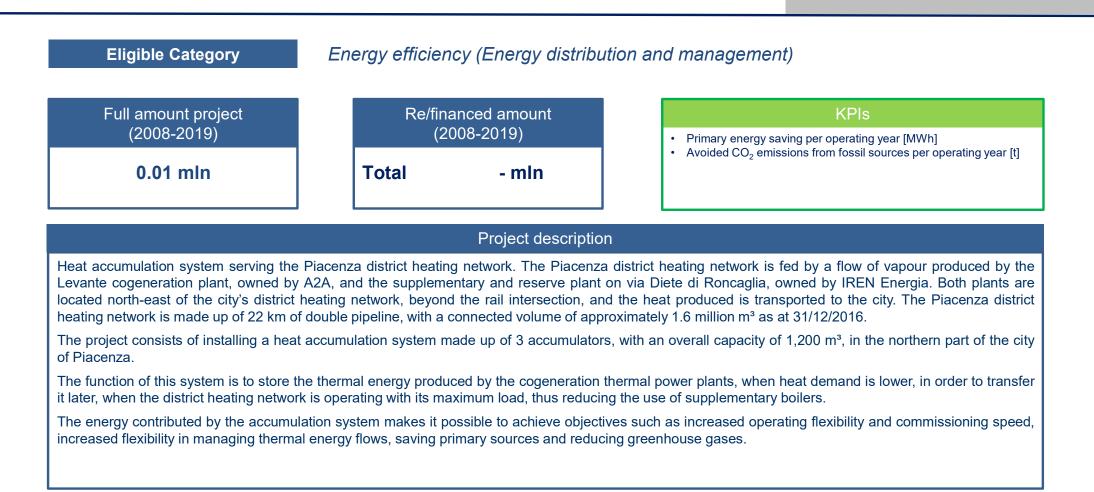




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## Accumulators district heating in Piacenza (PC)

#### 3 ENERGY BU

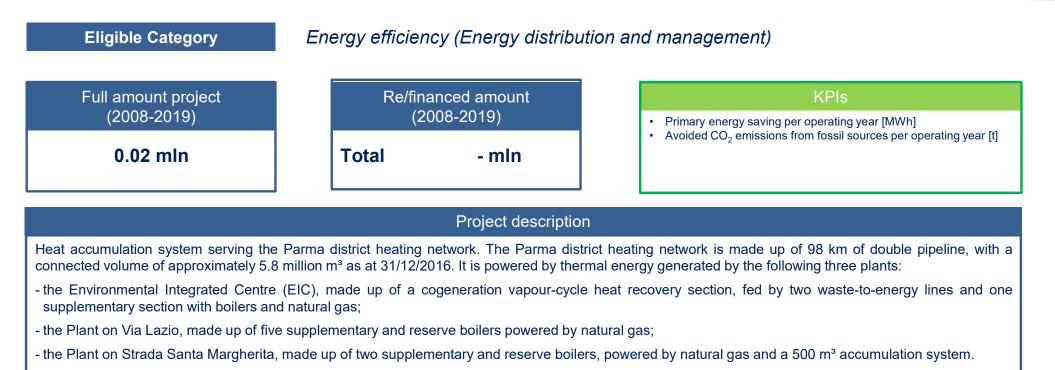




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## Accumulators district heating in Parma (PR)

#### 4 ENERGY BU



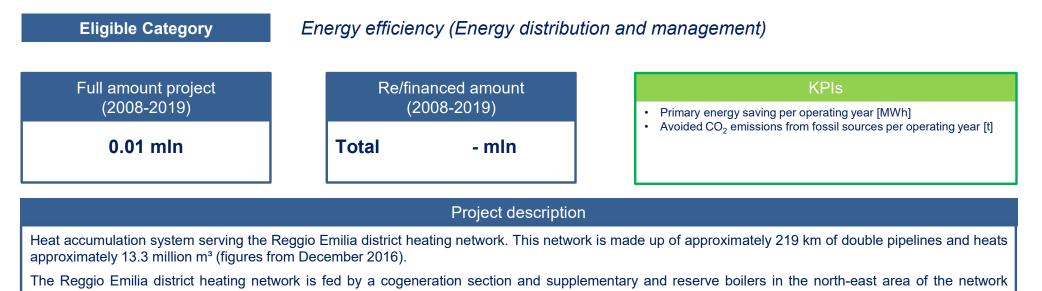
The new accumulator system being planned has a volume of 1,200 m<sup>3</sup> and will be installed at the Via Lazio plant. The function of this system is to store the thermal energy produced by the EIC's waste-to-energy cogeneration system thermal power plants when heat demand from the district heating 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.



## Accumulators district heating in Reggio Emilia (RE)

#### 5 ENERGY BU



The Reggio Emilia district heating network is fed by a cogeneration section and supplementary and reserve boilers in the north-east area of the network (Energy Hub), the supplementary and reserve boilers in the south-west (Network 1 Plant), south-east (Pappagnocca Plant) and north-east (Via Sardegna Plant) areas of the network.

A 1,600 m<sup>3</sup> accumulation system is already installed in the Reggio Emilia district heating network at the Energy Hub, with a daily loading/unloading operation during the heating season.

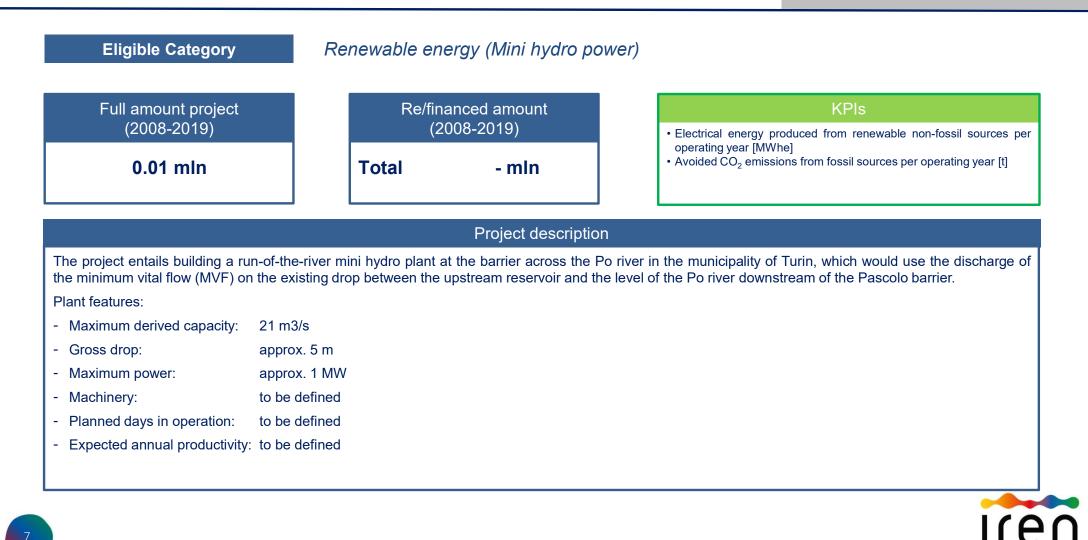
The new accumulator system being planned has a volume of 1,200 m<sup>3</sup> and will be installed at the Via Sardegna Plant. The function of the accumulation system is to store the thermal energy produced by the cogeneration thermal power plants when heat demand is lower, in order to transfer it later, when the district heating network is operating with its maximum 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.



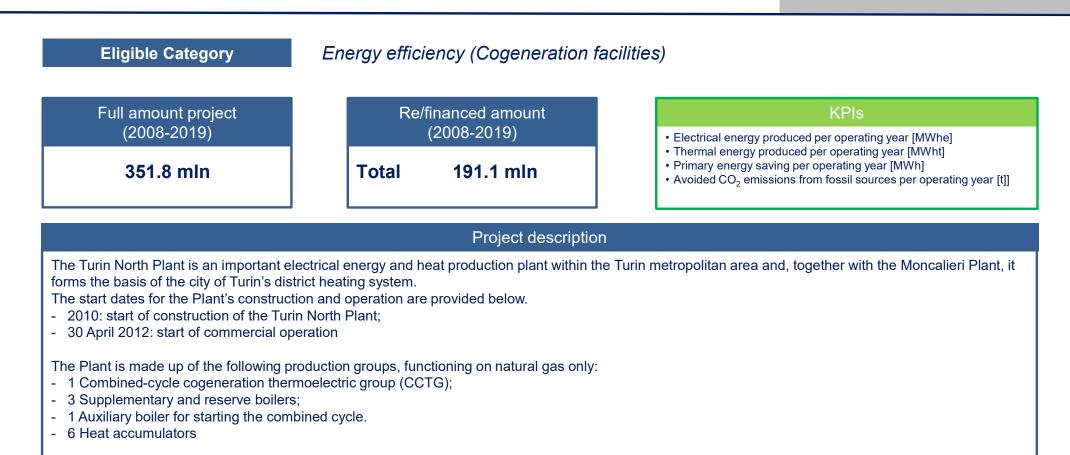
#### San Mauro/Diga del Pascolo Mini Hydro plant

#### 6 ENERGY BU



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## **Cogeneration plant Torino Nord**

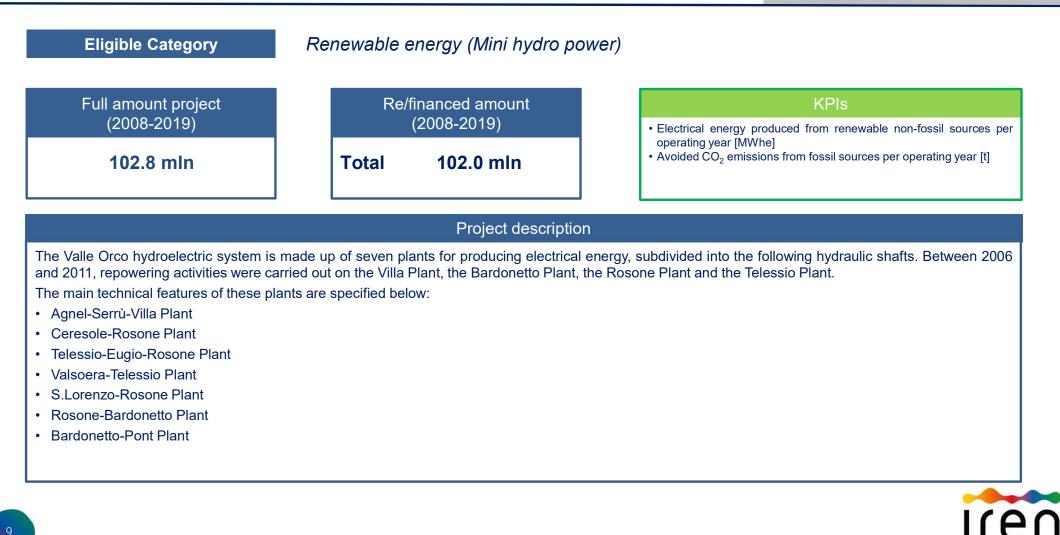




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## Valle Orco hydroelectric plants

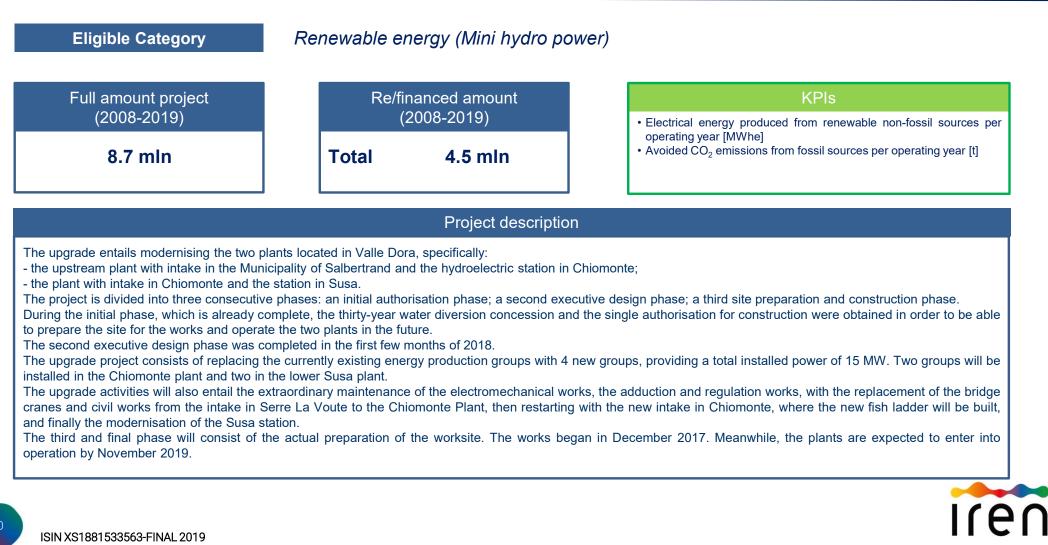
#### 8 ENERGY BU



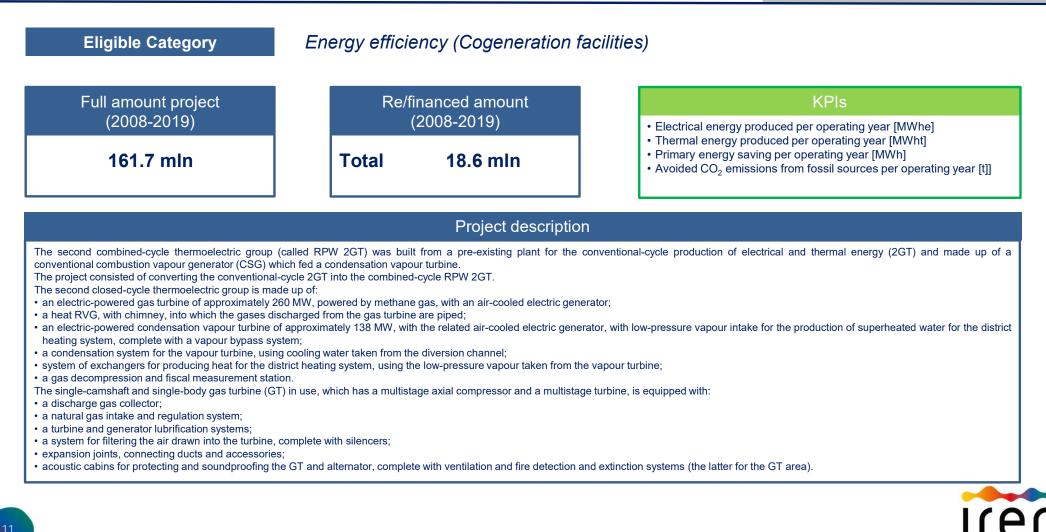
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## VDE hydroelectric plant (Chiomonte-Susa) repowering project

**ENERGY BU** 9



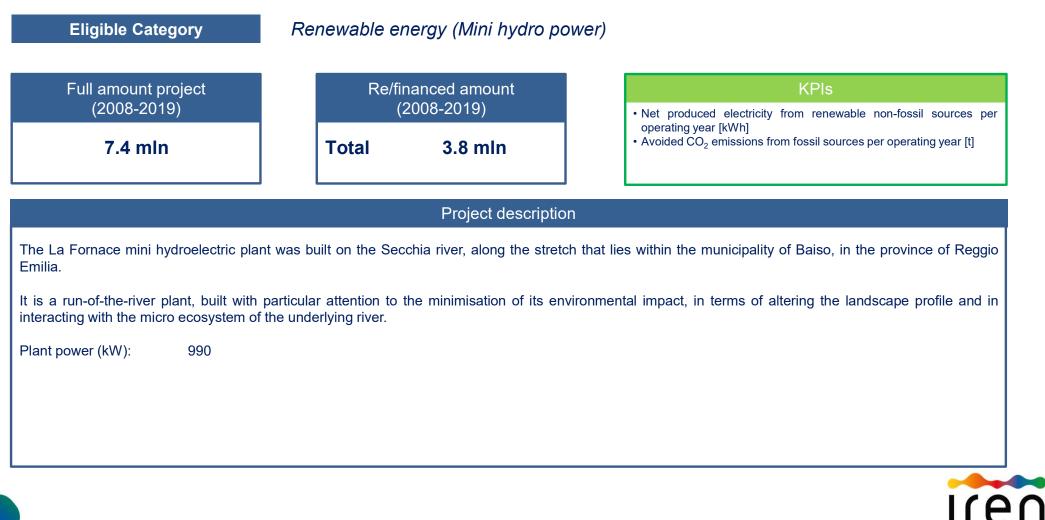
#### **Cogeneration plant Moncalieri–GT2 RPW**



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## Mini Hydro Fornace plant in Baiso (RE)

11 ENERGY BU



## Photovoltaic plants owned by "Varsi" company

#### 12 ENERGY BU

1 3		Re/financed amount		KPIs			
(2008-2019)	(20	(2008-2019)		<ul> <li>Net produced electricity from renewable non-fossil sources per operating year [kWh]</li> <li>Avoided CO<sub>2</sub> emissions from fossil sources per operating year [t]</li> </ul>			
27.5 mln	Total	Total 16.8 mln					
		Project des	cription				
		,		Musicia di Alto	Durational	D	Time
			Plant	Municipality	Province	Power (KWP)	Type
		Gonzaga	Plant	Gonzaga	Mantua	741	Roof
		Gonzaga Gonzaga	Plant iera locciodromo (Bocce hall)	Gonzaga Gonzaga	Mantua Mantua	741 43	Roof Roof
		Gonzaga Gonzaga Gonzaga	Plant iera iocciodromo (Bocce hall) niddle school	Gonzaga Gonzaga Gonzaga	Mantua Mantua Mantua	741 43 64	Roof Roof Roof
		Gonzaga Gonzaga Gonzaga Rigosa PT	Plant iera socciodromo (Bocce hall) hiddle school / [photovoltaic plant]	Gonzaga Gonzaga Gonzaga Roccabianca	Mantua Mantua Mantua Parma	741 43 64 890	Roof Roof Roof Ground
		Gonzaga Gonzaga Gonzaga Rigosa PT Canesio F	Plant iera cocciodromo (Bocce hall) niddle school / [photovoltaic plant] TV	Gonzaga Gonzaga Gonzaga	Mantua Mantua Mantua	741 43 64 890 551	Roof Roof Roof Ground Ground
		Gonzaga Gonzaga Gonzaga Rigosa PT Canesio F	Plant iera socciodromo (Bocce hall) hiddle school / [photovoltaic plant] rV ad to Soragna PTV	Gonzaga Gonzaga Gonzaga Roccabianca Pellegrino P.se	Mantua Mantua Mantua Parma Parma	741 43 64 890	Roof Roof Roof Ground
		Gonzaga Gonzaga Gonzaga Rigosa PT Canesio F Bellario, ro Rimale PT	Plant iera socciodromo (Bocce hall) hiddle school / [photovoltaic plant] rV ad to Soragna PTV	Gonzaga Gonzaga Gonzaga Roccabianca Pellegrino P.se San Secondo P.se	Mantua Mantua Mantua Parma Parma Parma	741 43 64 890 551 998	Roof Roof Ground Ground Ground
		Gonzaga Gonzaga Gonzaga Rigosa PT Canesio F Bellario, ro Rimale PT	Plant iera socciodromo (Bocce hall) hiddle school / [photovoltaic plant] IV ad to Soragna PTV / tting Plants	Gonzaga Gonzaga Gonzaga Roccabianca Pellegrino P.se San Secondo P.se Fidenza	Mantua Mantua Mantua Parma Parma Parma Parma	741 43 64 890 551 998 998	Roof Roof Ground Ground Ground Ground
		Gonzaga Gonzaga Rigosa PT Canesio F Bellario, ro Rimale PT Italian Isol Priorato P	Plant iera socciodromo (Bocce hall) hiddle school / [photovoltaic plant] IV ad to Soragna PTV / tting Plants	Gonzaga Gonzaga Gonzaga Roccabianca Pellegrino P.se San Secondo P.se Fidenza Porto Torres	Mantua Mantua Mantua Parma Parma Parma Parma Sassari	741 43 64 890 551 998 998 998 972	Roof Roof Ground Ground Ground Ground Roof
/arsi Fotovoltaico encompasses 12 pł he ground and 4 on roofs, with an overa		Gonzaga Gonzaga Gonzaga Rigosa PT Canesio F Bellario, ro Rimale PT Italian Isol Priorato P Busseto F	Plant iera acciodromo (Bocce hall) hiddle school / [photovoltaic plant] rV ad to Soragna PTV / titing Plants	Gonzaga Gonzaga Gonzaga Roccabianca Pellegrino P.se San Secondo P.se Fidenza Porto Torres Fontanellato	Mantua Mantua Mantua Parma Parma Parma Parma Sassari Parma	741 43 64 890 551 998 998 972 995	Roof Roof Ground Ground Ground Ground Roof Ground



#### **Eligible Category** Renewable energy (Solar PV energy generation) **Re/financed amount** Full amount project **KPIs** (2008-2019)(2008-2019)• Net produced electricity from renewable non-fossil sources per operating year [kWh] • Avoided CO<sub>2</sub> emissions from fossil sources per operating year [t] 16.8 mln **Total** 7.6 mln **Project description** PTV Green Source encompasses various Municipality Power (KWP) Plant Province Туре photovoltaic plants, with an overall power of 3.9 MW C8 Reggio Emilia Reggio Emilia 1.212 Roof Tennis Club Reggio Emilia Reggio Emilia 200 Roof Pluris Energy Castellarano Reggio Emilia 710 Ground **ITIS Parma** Parma Reggio Emilia 170 Ground Mancasale Reggio Emilia 993 Roof Reggio Emilia Scandiano Reggio Emilia Scandiano indoor sports arena 95 Roof Castellarano Reggio Emilia 122 Tressano School Facilities Reggio Emilia-Parma-Piacenza Reggio Emilia-Parma-Piacenza 357 Roof Total 3.859



**ENERGY BU** 

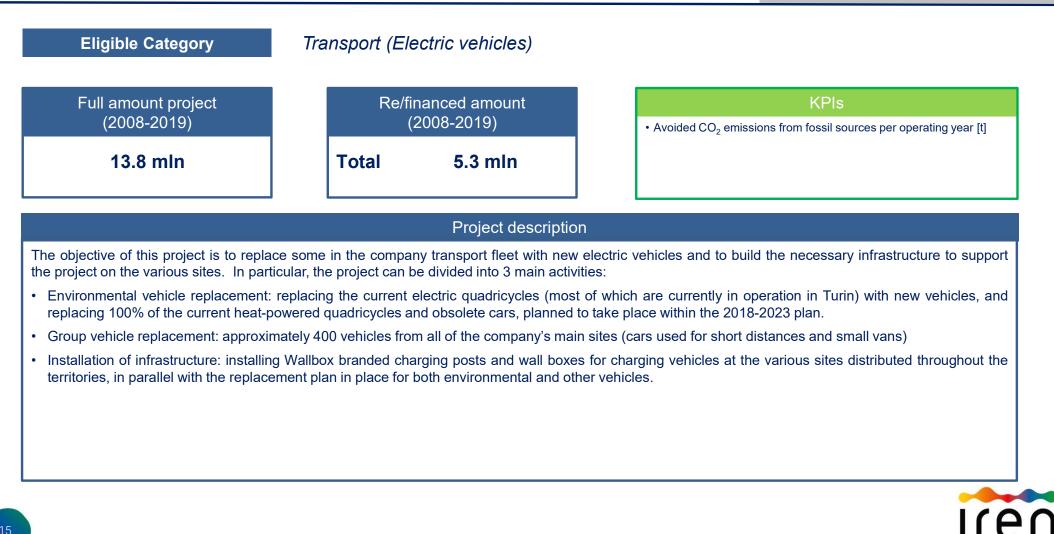
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Photovoltaic plants owned by "Greensource" company

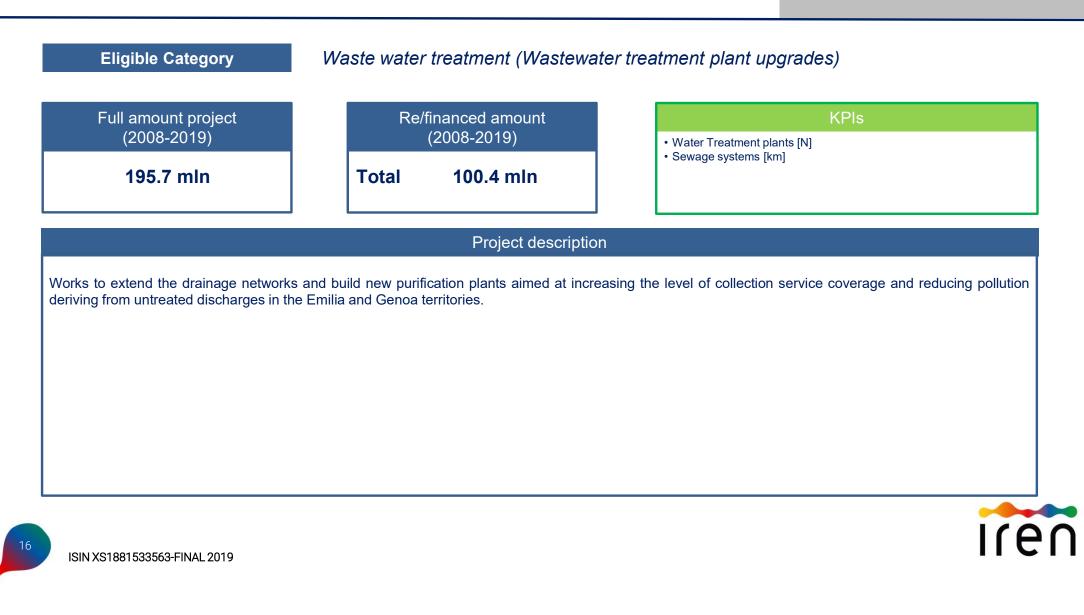
## E-mobility initiatives in the Iren offices

14 MARKET BU



## Investiments in Sewage and Waste water plants (Emilia and Liguria)

15 NETWORKS BU



#### **Electricity distribution investments**

#### 16 NETWORKS BU

