

KPI LIST (pre issue) GREEN BOND ISSUED 2018-MATURITY 2025 (ISIN XS1881533563)

Business Unit	n.	Project Description	Eligible Green Category	Eligible Category (DNV)	KPI	UM	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022					
WASTE MANAGEMENT	1	Revamping Saliceti plant owned by Recos company (WDF recovery)	Waste management efficiency and recycling	Waste collection and sorting upgrades	Waste-derived fuel (WDF) per operating year	t										7.886	20.251	29.811	29.811	29.811	29.811					
					Percentage of WDF on total treated waste per operating year	%														10,0%	22,9%	28,5%	28,5%	28,5%	28,5%	
ENERGY	2	Accumulators district heating in San Salvario (TO)	Energy efficiency	Energy distribution and management	Primary energy saving per operating year	MWh														5.824	12.395	11.488				
					Electrical energy produced from renewable non-fossil sources per operating year	MWh																	18,30	18,30	18,30	
					Avoided CO2 emissions from fossil sources per operating year	t																		1.145	2.437	2.259
					Avoided CO2 emissions from fossil sources per operating year by photovoltaic plant	t																		9,37	9,37	9,37
	3	Accumulators district heating in Piacenza (PC)	Energy efficiency	Energy distribution and management	Primary energy saving per operating year	MWh															3.180	3.180	3.180			
					Avoided CO2 emissions from fossil sources per operating year	t																	625	625	625	
	4	Accumulators district heating in Parma (PR)	Energy efficiency	Energy distribution and management	Primary energy saving per operating year	MWh															3.180	3.180	3.180			
					Avoided CO2 emissions from fossil sources per operating year	t																	625	625	625	
	5	Accumulators district heating in Reggio Emilia (RE)	Energy efficiency	Energy distribution and management	Primary energy saving per operating year	MWh															10.407	10.407	10.407			
					Avoided CO2 emissions from fossil sources per operating year	t																	2.046	2.046	2.046	
	6	San Mauro/Diga del Pascolo Mini Hydro plant	Renewable energy	Mini hydro power	Electrical energy produced from renewable non-fossil sources per operating year	MWhe																6.700	6.700			
					Avoided CO2 emissions from fossil sources per operating year	t																		3.430	3.430	
	7	Cogeneration plant Torino Nord	Energy efficiency	Cogeneration facilities	Electrical energy produced per operating year	MWhe						1.432.728	1.894.130	1.080.072	2.200.788	2.133.545	2.002.201	1.756.209	1.817.075	1.817.075	1.817.075	1.817.075				
					Thermal energy produced per operating year	MWht								453.069	474.766	419.311	1.092.632	1.030.891	958.458	1.026.552	1.043.014	1.043.014	1.043.014	1.043.014		
					Primary energy saving per operating year	MWh									49.394	68.526	40.589	120.117	112.489	105.495	108.772	111.129	111.129	111.129	111.129	
					Avoided CO2 emissions from fossil sources per operating year	t									211.482	289.447	169.483	426.318	413.253	397.432	367.096	376.466	376.466	376.466	376.466	
	8	Valle Orco hydroelectric plants	Renewable energy	Mini Hydro Power	Electrical energy produced from renewable non-fossil sources per operating year	MWhe						659.800	835.100	657.100	744.894	607.942	647.139	662.326	633.055	633.055	633.055	633.055				
					Avoided CO2 emissions from fossil sources per operating year	t									212.358	318.999	196.644	506.814	457.165	397.432	367.096	376.466	376.466	376.466		
	9	VDE hydroelectric plants (Chiomonte-Susa) Repowering project	Renewable energy	Mini hydro power	Electrical energy produced from renewable non-fossil sources per operating year	MWhe						56.140	72.690	62.690	62.831	60.034	59.818	18.728	19.030	19.030	19.030	19.030				
					Avoided CO2 emissions from fossil sources per operating year	t									27.643	36.882	32.407	33.198	30.760	29.418	9.210	9.359	9.359	9.359		
10	Cogeneration plant Moncalieri – GT2 RPW	Energy efficiency	Cogeneration facilities	Electrical energy produced per operating year	MWhe						1.669.146	2.028.560	1.585.195	1.292.799	1.515.332	1.882.310	1.453.465	1.474.560	1.474.560	1.474.560	1.474.560					
				Thermal energy produced per operating year	MWht								659.604	751.435	817.637	477.307	612.983	680.375	425.470	432.117	432.117	432.117				
				Primary energy saving per operating year	MWh									84.092	97.341	84.700	58.099	74.927	88.316	63.400	64.655	64.655	64.655			
				Avoided CO2 emissions from fossil sources per operating year	t									310.931	400.332	349.098	265.512	303.862	321.873	240.650	244.938	244.938	244.938			
11	Mini Hydro Fornace plant in Baiso (RE)	Renewable energy	Mini hydro power	Net produced electricity from renewable non-fossil sources per operating year	kWh						7.118.000	8.415.080	8.428.502	6.956.287	6.879.252	4.814.847	8.400.000	7.400.000	7.400.000	7.400.000	7.400.000					
				Avoided CO2 emissions from fossil sources per operating year	t									3.505	4.270	4.357	3.675	3.525	2.368	4.131	3.639	3.639	3.639			
12	Photovoltaic plants owned by "Varsi" company	Renewable energy	Solar PV energy generation	Net produced electricity from renewable non-fossil sources per operating year	kWh							9.140.541	9.190.145	8.441.384	8.180.693	9.462.000	8.784.603	8.861.162	8.861.162	8.861.162	8.861.162					
				Avoided CO2 emissions from fossil sources per operating year	t										4.501	4.663	4.364	4.322	4.848	4.320	4.358	4.358	4.358			
13	Photovoltaic plants owned by "Greensource" company	Renewable energy	Solar PV energy generation	Net produced electricity from renewable non-fossil sources per operating year	kWh							4.261.527	4.241.703	4.113.361	3.670.617	4.491.000	4.066.498	4.137.375	4.137.375	4.137.375	4.137.375					
				Avoided CO2 emissions from fossil sources per operating year	t										2.098	2.152	2.126	1.939	2.301	2.000	2.035	2.035	2.035			
MARKET	14	E-mobility initiatives in the Iren offices	Transport	Electric vehicles	Avoided CO2 emissions from fossil sources per operating year	t												298	489	691	871	1.063				
NETWORKS	15	Investments in Sewage and Waste water plants (Emilia and Liguria)	Waste water treatment	Waste water treatment plant upgrades	Water Treatment plants	N	1.014	1.030	1.035	1.047	1.047	1.056	1.076	1.085	1.102	1.122	1.299	1.299	1.299	1.299	1.299					
					Sewage systems	km	7.689	8.075	8.443	8.772	8.983	9.052	9.164	9.274	9.293	9.924	10.803	10.803	10.803	10.803	10.803					
	16	Electricity distribution investments	Energy efficiency	Energy distribution and management	Network leaks	%				5%	5%	7%	6%	6%	5%	4%	4%	4%	4%	4%	4%					
Network leaks					GWh				220	244	315	249	246	204	173	173	173	173	173	173						
				Electricity fed into the network	GWh				4.484	4.485	4.451	4.097	4.191	4.387	4.420	4.420	4.420	4.420	4.420							