

WP3 – Summary Results/Indicators of Investment Plans carried out for the Municipalities of Fontanetto Po, Lamporo, Palazzolo and Trino in Italy.

- 3 pictures of concerned buildings



- General description of the pilot and its location

The Investment Plan involve 7 public buildings belonging to 4 municipalities, namely Fontanetto Po, Lamporo, Palazzolo and Trino. All Municipalities are settled in the province of Vercelli, in the East-North part of the Piemonte Region. Three buildings (a city hall with primary school, one gym and a theatre), are located in Fontanetto Po, one building the city hall is located in Lamporo another city hall in Palazzolo whereas the resting 2 buildings (a primary and high school and the city hall) in Trino. The overall heated surface of the pool of the buildings is nearly 10.669 sqm, with an heated volume of about 49.427 cubic meter and a baseline consumption of 144.849 cubic meter of natural gas. The average shape form ratio is 0,45 and the average consumptions is about 157 kwh/sqm, but the buildings are quite different each other. The most energy intensive is the gym in Fontanetto Po (203,8 kwh/sqm). For each building a detailed audit has been performed.

- Responsible project partner details

Organisation name	Piemonte Region Environment Park
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- Summary/Results Indicators

No. of Municipalities/Public Bodies involved	2 Municipality of Fontanetto Po Municipality of Lamporo Municipality of Palazzolo Municipality of Trino
No. of buildings (bundled EPC)	7
Heating Degree Days	2.391 for Fontanetto Po and Trino, 2.417 for Lamporo and Palazzolo
Heated volume (m3)	49.427
Usable area (m2)	10.669
Total Investments needed (€)	318.500*
Loan by the Public Body? If yes, amount (€)?	No
Available public funding/incentives considered (€)	The National incentive “Conto termico” 120.362
VAT (%)	22%
Energy vector included? If yes, related value (i.e. €/standard cube metre of	Yes. 0.1731 €/kWh for electricity

methane gas and or €/kWhe)	0.5756 €/Sm3 for natural gas
O&M included? If yes, related value (€)	Yes 18.189 €/y
Typology of ECM- Energy Conservation Measures (description)	<p>A set of measures for each building such as:</p> <ul style="list-style-type: none"> <input type="checkbox"/> change of heating system <input type="checkbox"/> insulation of roofs <input type="checkbox"/> insulation of envelopes <input type="checkbox"/> energy management system <p>The above list is only indicative and details are provided for each building in the audits. In any case it is the ESCO that is asked to provide its own solutions during the bid delivery.</p>
Energy saving (%)	<p>For each Municipality and energy curries a minimum energy saving target is fixed:</p> <ul style="list-style-type: none"> <input type="checkbox"/> for Fontanetto PO: 32% for natural gas*; <input type="checkbox"/> for Lamporo: 16% for natural gas*. <input type="checkbox"/> for Palazzolo: 38% for natural gas*. <input type="checkbox"/> For Trino: 13,7% for

	natural gas*
kWh ANTE and kWh POST implementation ECMs (not standard but resulting from the energy audits)	<p>For each Municipality and energy carries an energy baseline is fixed:</p> <ul style="list-style-type: none"> ☐ for Fontanetto PO: 36.226 Sm³ for natural gas, 15.219 kWh for electricity); ☐ for Lamporo: 7.569 Sm³ for natural gas. ☐ for Palazzolo: 4.068 Sm³ for natural gas. ☐ for Trino: 96.896 Sm³ for natural gas.
Avoided CO₂ emissions (kgCO₂/y)	106575*

*the data is related to the baseline, so it could be increased further.