

WP3 – Summary Results/Indicators of Investment Plans carried out by each STEPPING partner

- **3 pictures of concerned buildings**



- **General description of the pilot and its location**

Within the framework of the European project STEPPING and with the aim of identifying energy savings and measures to be implemented, energy audits have been carried out in 15 schools in the province of Huelva (Spain), which have allowed know the energy status of that Centers object of study.

The 15 schools have an annual energy consumption of 815,978 kWh/y of electricity, 378,879 kWh/y of diesel and 14,383 kWh/y of methane gas, and emit 29,57 kg/m² of CO₂ into the atmosphere. An adequate energy management would contribute to reduce these emissions and avoid their consequences.

The purpose of the pilot is to evaluate the feasibility of the energy audit as a management tool in schools, to analyze their energy consumption, and propose concrete measures to reduce their energy demand, as well as to provide a cost reduction study that It makes it possible to reduce the costs of exploitation, maintenance and replacement, contributing to preserve the environment.



- Responsible project partner details**

Organisation name	Diputación de Huelva
Name of the STEPPING referent	Manuel Acevedo
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- Summary/Results Indicators**

No. of Municipalities/Public Bodies involved	11
No. of buildings (bundled EPC)	15
Degree Days	Heating Degree Days: 577,9 Cooling Degree Days: 1526,9
Heated volume (m3)	115.102 m3
Usable area (m2)	46.041 m2
Total Investments (€)	343.908 €
Loan by the Public Body? If yes, amount (€)?	NO
Available public funding/incentives considered (€)	NO
VAT (%)	21%
Energy vector included? If yes, related value (i.e. €/standard cube metre of methane gas and or €/kWhe)	0,12 €/kWhe (electricity) 0,06 €/kWhe (diesel)
O&M included? If yes, related value (€)	7.250 €
Contract duration (years)	10



<p>Typology of ECM- Energy Conservation Measures (description)</p>	<ul style="list-style-type: none"> - Photovoltaic modules - Replacement of fluorescent tubes with LED luminaries - Presence detectors - Optimization and adjustment of contracted power - Installation of plugs: type “Plugwise” -Flow regulators for taps
<p>Energy saving (%)</p>	<p>41,5 %</p>
<p>kWh ANTE and kWh POST implementation ECMs (not standard but resulting from the energy audits)</p>	<p>1.209.240 kWh ANTE 736.281 kWh POST</p>
<p>Avoided CO2 emissions (kgCO2/y)</p>	<p>127.153 (kgCO2/y)</p>
<p>Yearly fee (€/y), possibly with details on how it is split out</p>	<p>Information not available until the reception of quotation from ESCOs after tender launch</p>

