



Title	COLLECTIVE SELF-CONSUMPTION PROJECT - VIA LARGA SHOPPING CENTER	INST-01
Country	Bologna, Italy	
Energy Efficiency Measures	Photovoltaic system with a capacity of 200 kWp on parking area shelters and establishment of a group of Collective Self-consumers of renewable energy.	
SME Sector	Any SME. The basic requirement is that the self-consumers group of participants are located in the same building/condominium (the definition of super condominium also assumes validity in the commercial or industrial context in the case of logistics hubs, interports, shopping malls, where there is a multiplicity of buildings with real estate units owned by several parties and having common parts such as, for example, lighting or private roads).	
Why?	<p>Fostering the drivers of energy transition and decarbonization.</p> <p>The Collective Self-Consumption project involving the Shopping Center (both common parts and stores) is aimed at taking advantage of the benefits given by sharing self-generated electricity from renewable sources so as to minimize energy expenditure and electricity use. The ambition of the project consists in devising a good practice based on promoting renewable sources, reducing CO<sub>2</sub> emissions and increasing levels of energy savings and efficiency, thus providing concrete benefits to participants.</p>	
How?	<p><b>Approach</b></p> <p>The collective self-consumption scheme, which involves sharing electricity generated from renewable sources with investment made in the common parts of the Shopping Center, includes the installation of photovoltaic shelters in the outdoor parking area.</p> <p>The plant has an estimated annual producibility of 234,000 kWh/year and occupies an area of about 1,340 m<sup>2</sup>. It is connected to the power grid on the same meter as the utilities in the common parts to have the maximum benefit of direct self-consumption. Participants in the group will benefit from the incentives (100 €/MWh) provided by sharing the energy produced by the plant.</p> <p>The initial investment is estimated at €300,000 (considering a cost of €1,500/kWp) and operating costs of €5,000/year. Direct self-consumption is assumed to be about 80%, and the remaining 20% is valued as shared energy.</p>	





	<p><b>Barriers</b></p> <p>The feasibility study for the self-consumption group at the Via Larga Shopping Center is currently available and has not been implemented yet.</p> <p>The status of the Italian legal/regulatory framework is still not final. Implementation decrees are needed to make the mechanism operational. Therefore, assessments are partial and not final.</p> <p>Collective Self-Consumption experiments are currently ongoing in Italy and represent useful pilot cases for acquiring skills in the use of technologies, management of stakeholder relations and proper use of currently existing regulatory tools.</p> <p>However, there is a lack of established reference case studies in this framework.</p> <p>The business model needs to be put into practice from time to time depending on the value proposition, business opportunities, members participating in the initiative, forms of financing, and distribution of economic benefits.</p>
<p>Who?</p>	<p>The configuration of Collective Self-Consumption involves the following participants:</p> <ul style="list-style-type: none"> <li>● the managing entity of the common parts (promoter of the project)</li> <li>● the outlets of the Shopping Center (stores, bars, supermarket).</li> </ul> <p>There are no plans to use third-party financing since the ownership of the facility belongs to the Shopping Center.</p>
<p>What?</p>	<p>The implementation of the Collective Self-consumption configuration produces several benefits.</p> <ul style="list-style-type: none"> <li>● Non-economic benefits</li> </ul> <p>Awareness is increased in the framework of the impact of actions on energy consumption and virtuous behavior for maximizing self-consumption.</p> <p>The image of the shopping center in Via Larga is also improved since a share of energy is produced in a renewable way.</p> <ul style="list-style-type: none"> <li>● Economic benefits</li> </ul> <p>There will be a measurable economic benefit as follows:</p> <ul style="list-style-type: none"> <li>● 100 €/MWh incentive for shared energy</li> <li>● Refund of grid charges on shared energy (about 8 €/MWh).</li> <li>● revenues related to energy fed into the grid.</li> </ul> <p>In addition to these benefits, there will be no take from the grid through direct self-consumption on the utilities in the common parts. The trial lends itself to replicability on other similar facilities.</p>
<p>Lessons learnt</p>	<p>Possible recommendations for SMEs wishing to undertake an AUC initiative:</p> <ul style="list-style-type: none"> <li>● A Shopping Center represents a suitable site to implement collective self-consumption given the availability of areas useful for the installation of a PV system.</li> <li>● Consider the allowable size limit for the systems: the current regulations provide the opportunity for all the entities in the same building to self-consume and share energy produced by renewable energy systems of less than 200 kWp, it was chosen to the maximization of the size of the the PV system according to the current rules, when the Via Larga project was designed.</li> </ul>





- Evaluate the role of the stakeholders involved, given the multiplicity of possible actors and configurations.
- To study the economic sustainability of the initiative in detail.



Collective Self-Consumption Project: PV system on parking area shelters.  
Via Larga Shopping Center, Bologna

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