Living Lab: “Energia com alegria”
São Luís Village, Odemira, Portugal
André Vizinho and Sérgio Maraschin

(“energy withy with joy”)
Living Lab: “Energia com alegria” ("energy withy with joy")

Linking technology with an emergent Renewable Energy Community (REC) in a small village

- **1. Where** to install? Identification of potential sites by GIS and field check
- **2. What** to install? Modelling and simulation of “real electrical system” for the village using open source software
- **3. How** to prioritise actions? Starting with collective buy of PV systems and hands-on workshops, followed by sourcing funds (e.g. Participatory Budget) for a centralised PV unit and then dreaming ahead…
1. Where? Cadastre of PV and solar thermal installations

Informal group of volunteers, identified potential sites for PV installations using Google Earth, GIS and field checks. PROSEU team calculated areas.
2. What to install? Co-creation sessions & designing a local REC
2.1 Deciding on the REC configuration

Main tech input: modelling and simulation using open source software

G. Luz & R. Amaro Silva (PhD candidates, FCUL)

Full report available in http://energy-commons.com/

09/02/2021

Prosumer Inspiration Event
### 2.1 Deciding on the REC configuration

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Option A: n/ battery</th>
<th>Option B: w/ battery</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cost</strong></td>
<td>€4.8 M€</td>
<td>€6.3 M€</td>
</tr>
<tr>
<td><strong>PV centralized</strong></td>
<td>270 kW</td>
<td>730 kW</td>
</tr>
<tr>
<td><strong>PV rooftops</strong></td>
<td>540 kW</td>
<td>510 kW</td>
</tr>
<tr>
<td><strong>Wind turbines</strong></td>
<td>750 kW</td>
<td>500 kW</td>
</tr>
<tr>
<td><strong>Batteries</strong></td>
<td>-</td>
<td>400 kW / 2.8 MWh</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1560 kW</td>
<td>1740 kW</td>
</tr>
<tr>
<td><strong>Import and Export</strong></td>
<td>29% / 31%</td>
<td>15% / 17%</td>
</tr>
</tbody>
</table>
3. How actions were prioritized regarding energy investment

- Collective acquisition of PV systems after “hands-on” PV workshops and sharing info towards an informed decision.
- Seeking finance of a REC via Participatory Budget: technological advice, innovation and counselling contributed to the successful approval of the project.
- At the moment, considering steps towards a new REC.
São Luis Village is setting the pace towards the Energy Transition of the Odemira Council. Technological input is recognized as an enabling success factor. Crucial success factor still is “People.”
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André Vizinho and Sérgio Maraschin
on behalf of Energia com Alegria + local partners
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