

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



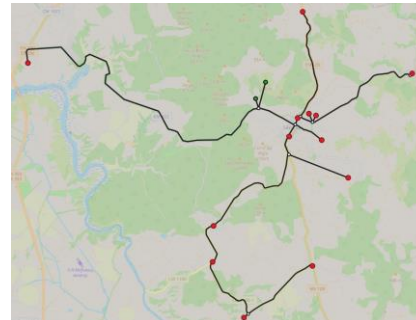


# Living Lab: “Energia com alegria”

(“energy 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...



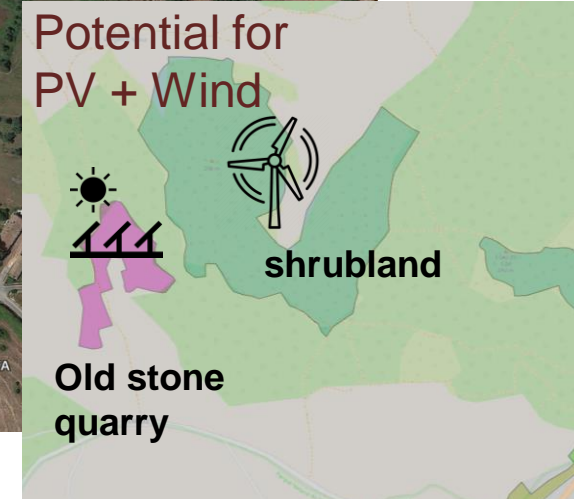
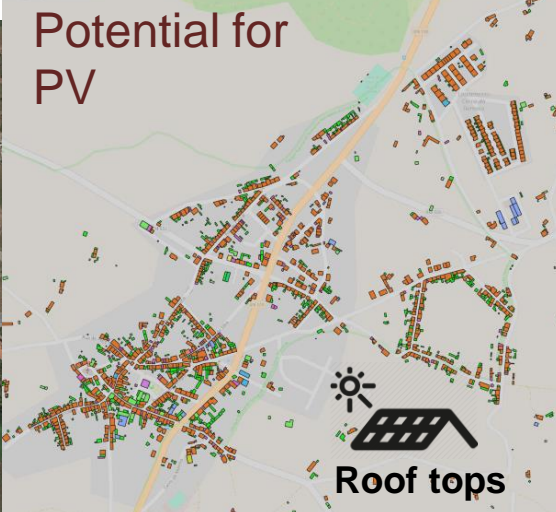
Prosumer Inspiration Event





# 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

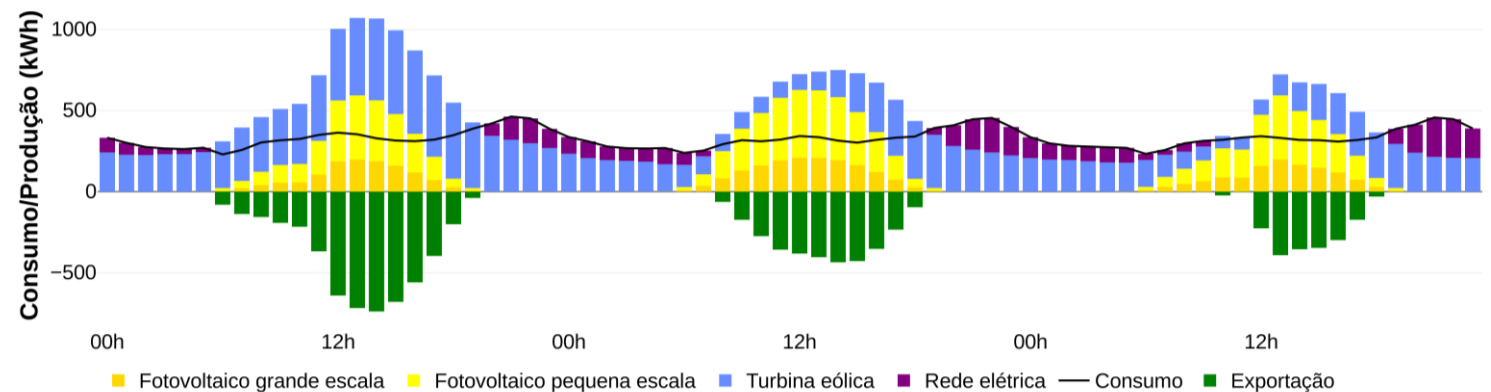
Main tech input:  
modelling and simulation  
using open source  
software

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

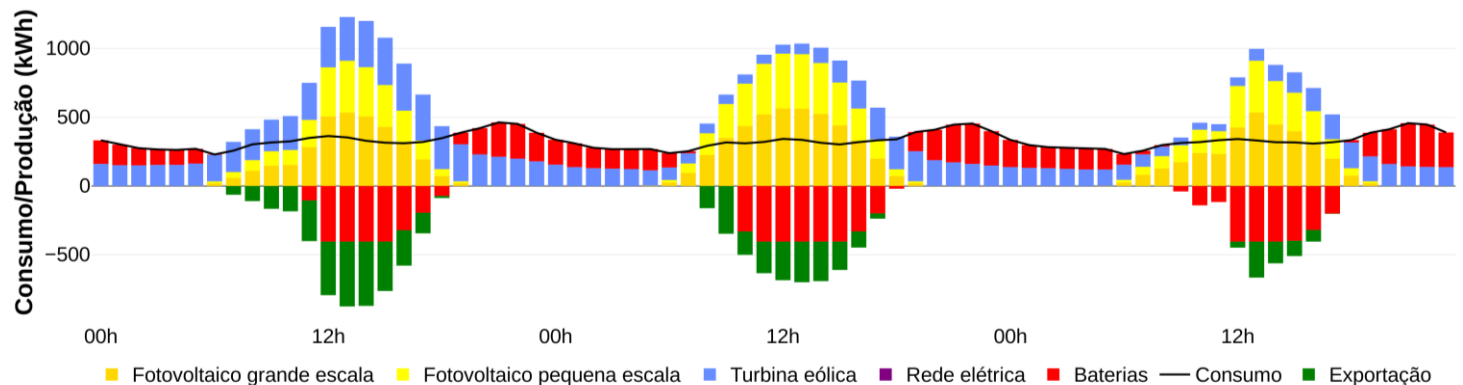
Full report available in <http://energy-commons.com/>

09/02/2021

**Option A: 100% self sufficient (year). Connected to grid. 30% import/export**



**Option B: 100% self sufficient (year). Use Batteries and Connects to grid. 16% import/export**



## 2.1 Deciding on the REC configuration



Indicators	Option A: n/ battery	Option B: w/ battery
<b>Cost</b>	4.8 M€	6.3 M€
<b>PV centralized</b>	270 kW	730 kW
<b>PV rooftops</b>	540 kW	510 kW
<b>Wind turbines</b>	750 kW	500 kW
<b>Batteries</b>	-	400 kW / 2.8 MWh
<b><u>Total</u></b>	<u>1560 kW</u>	<u>1740 kW</u>
<b>Import and Export</b>	29% / 31%	15% / 17%

### 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.



## Won Participatory Budget 2014 & 2020! REC in São Luis, Odemira



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”.





# Living Lab: “Energy with Joy”

São Luis Village, Odemira, Portugal

André Vizinho and Sérgio Maraschin  
on behalf of Energia com Alegria + local partners







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