



POWER UP

Social energy services: co-designing communities with people in energy poverty

Covenant of Mayors Investment Forum

Eduardo Blanco

25/10/2023



This project has received funding from the European Union's Horizon 2020 research and innovation program under Grant agreement No. 101033940



We are
the catalyst
for social
innovation
in the energy
market



Objectives

Local and regional authorities have a strong role in alleviating Energy Poverty and the solutions can be co-designed with people in vulnerable situations.

- **Implement 5 pilot schemes** for households in energy poverty without having to bear the financial risks:



RES production



Energy efficiency measures,

- Develop and reinforce **local energy market players** with a social agenda
- **Disseminate** the experience for replication

Pilots and impacts

55 838

energy-poor consumers involved

2,5 M€

investment in renewable energy

650 tCO₂-eq/year

avoided GHG emissions

0,187 GWh/year

primary energy savings

185

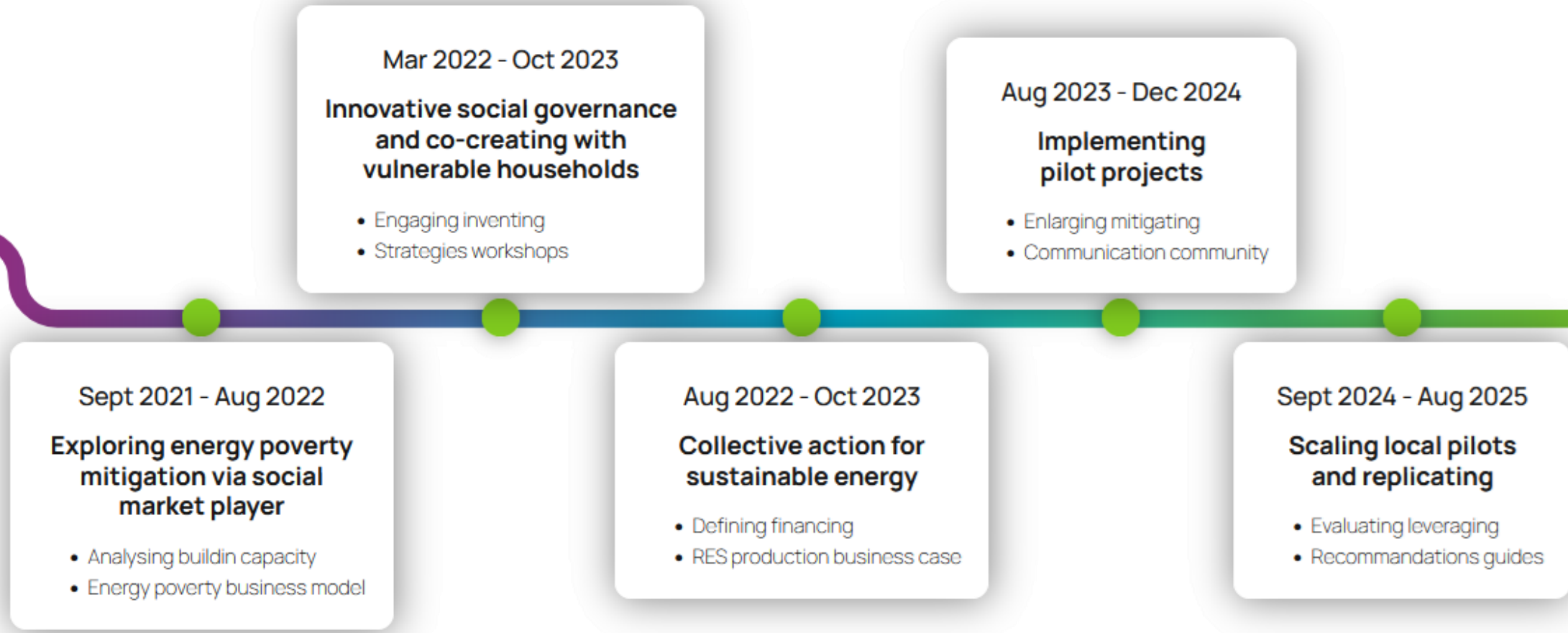
stakeholders with enhanced skills

11

contributions to policies



Timeline





POWER UP

Eeklo Pilot Case (BE)

Jan de Paw

25/10/2023



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Situation in Eeklo (BE)



18,6%

inhabitants needs financial support
(avg 15,6% in Flanders)

> 15%

households in energy poverty



Eeklo objective: involve vulnerable households in local energy transition

- **Renewable Energy Community** : Citizen Co-operative Ecopower started in 1991 and is active in Eeklo since 2001
- **Energy supply as service to the members** : Ecopower sharing produced energy as a service to the members since 2003.
- **Co-operative wind turbine** : build in 2020 with participation city Eeklo



Power up Eeklo



Co-operative Wind turbine:

- 2 MW -> 5 GWh/yr
- 2.000 households

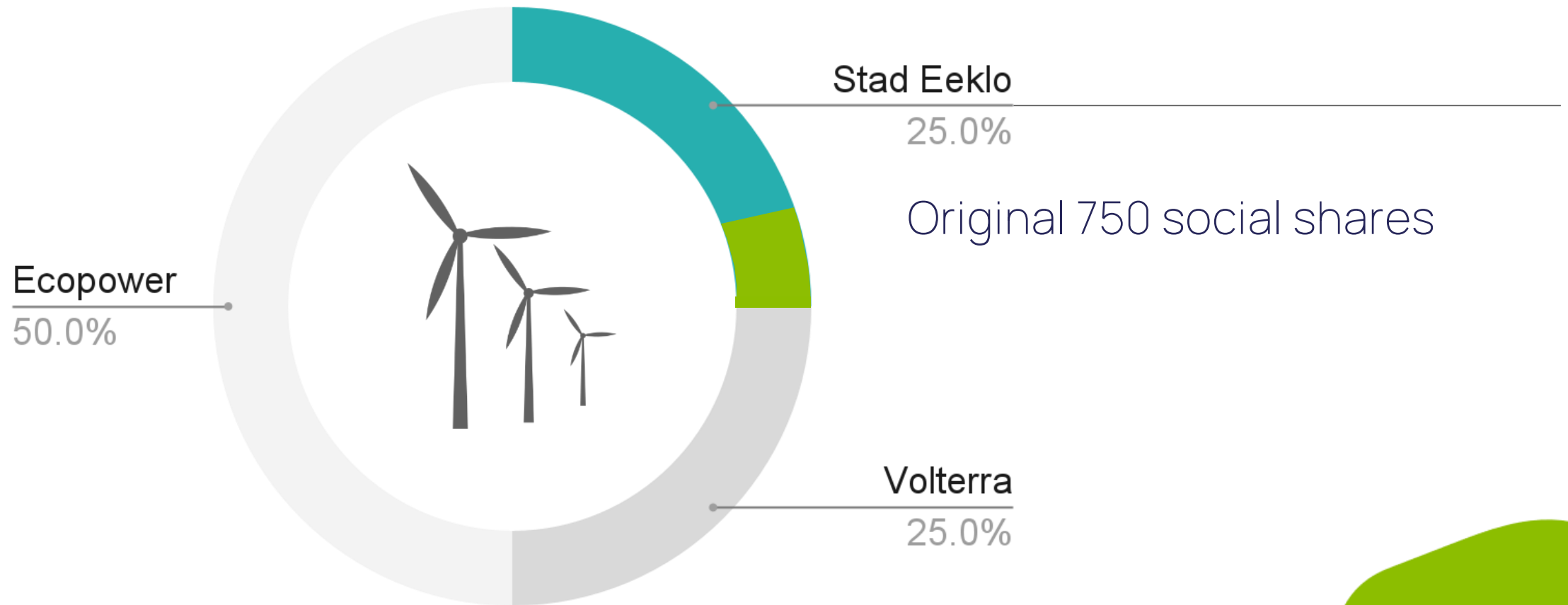
Participation:

- Ecopower
- Volterra
- **City of Eeklo**



Original participation plan city

in co-operative wind turbine 'Huysmanhoeve' (~ = REC)



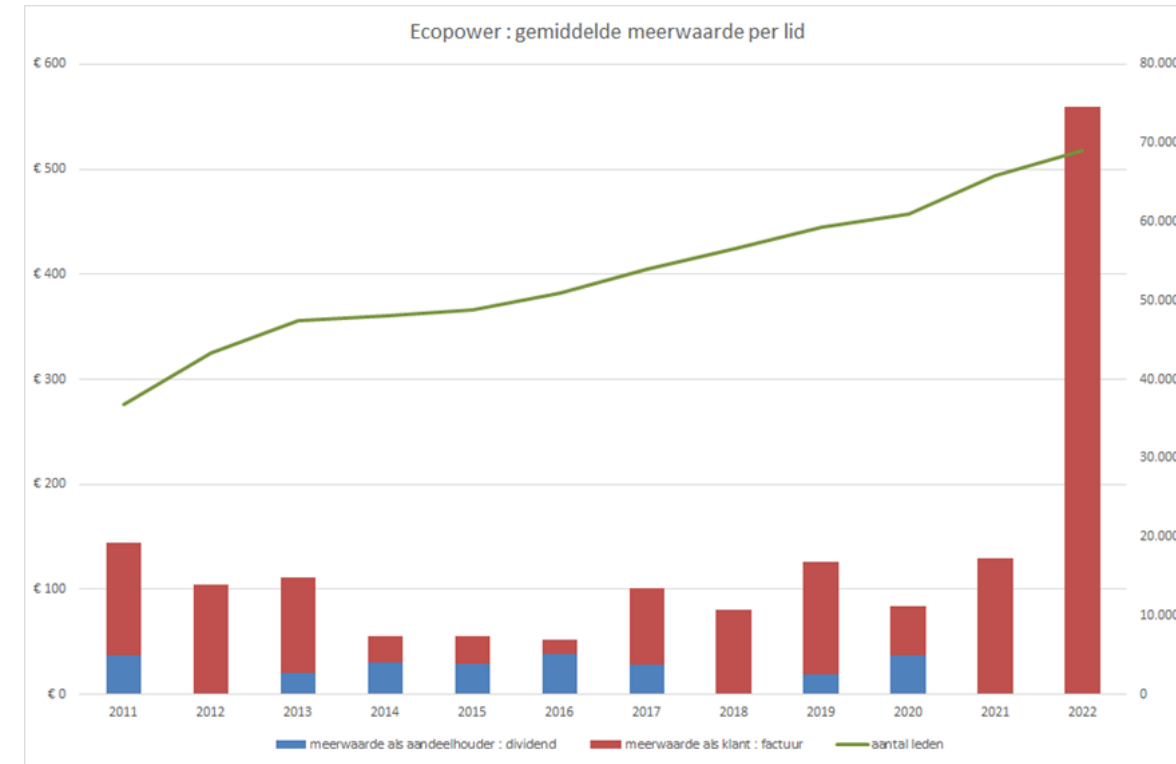
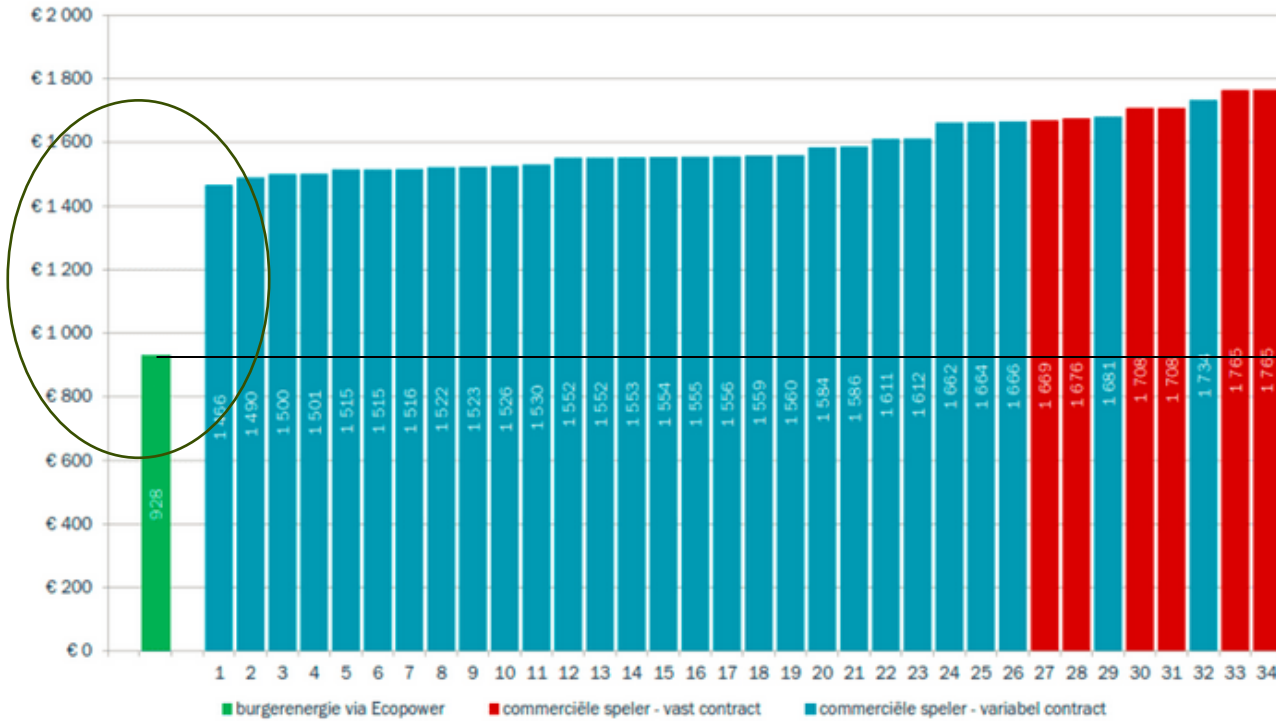
Why Power Up? wind as a common



Citizen energy co-operative (REC/CEC)
70.000 members
70% only has one share @ 250€
85% uses produced energy at home

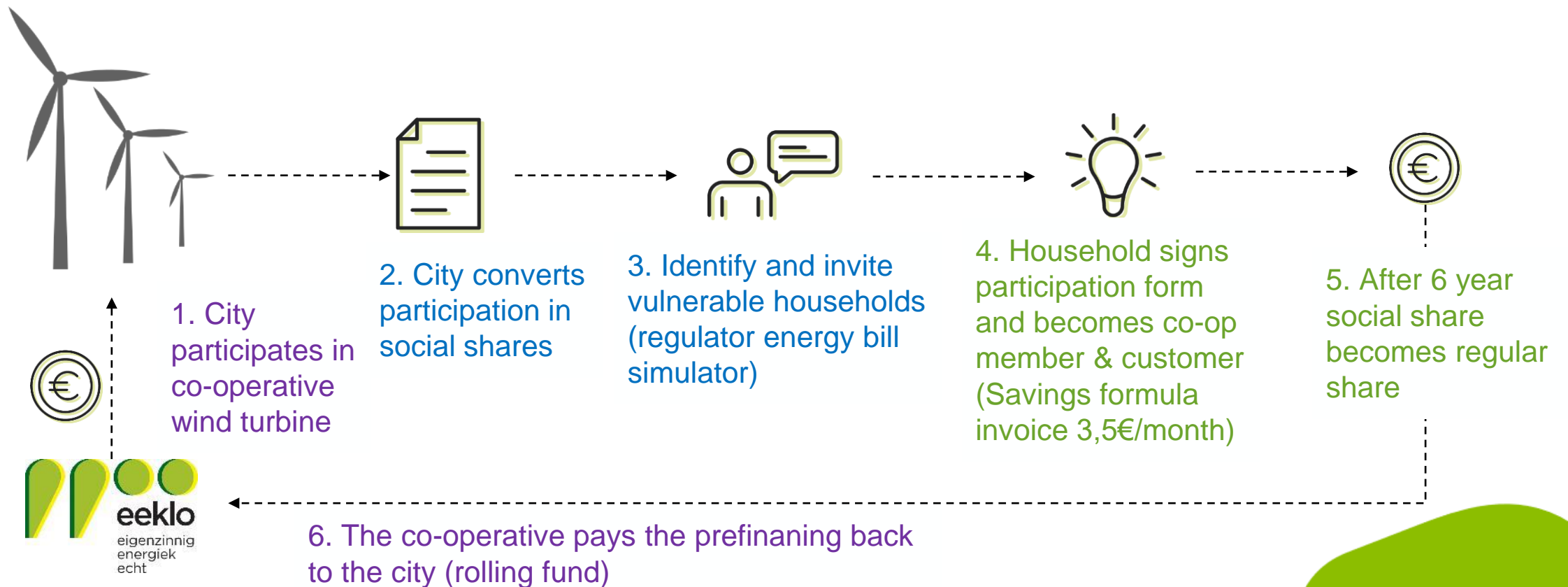
Why Power Up? Impact on energy bill

Burgerstroom versus commerciële spelers
scenario 1: 3500 kWh afname (18/06/2022)



Social shares proces

Rolling fund with social shares of energy cooperative provides access to local green energy



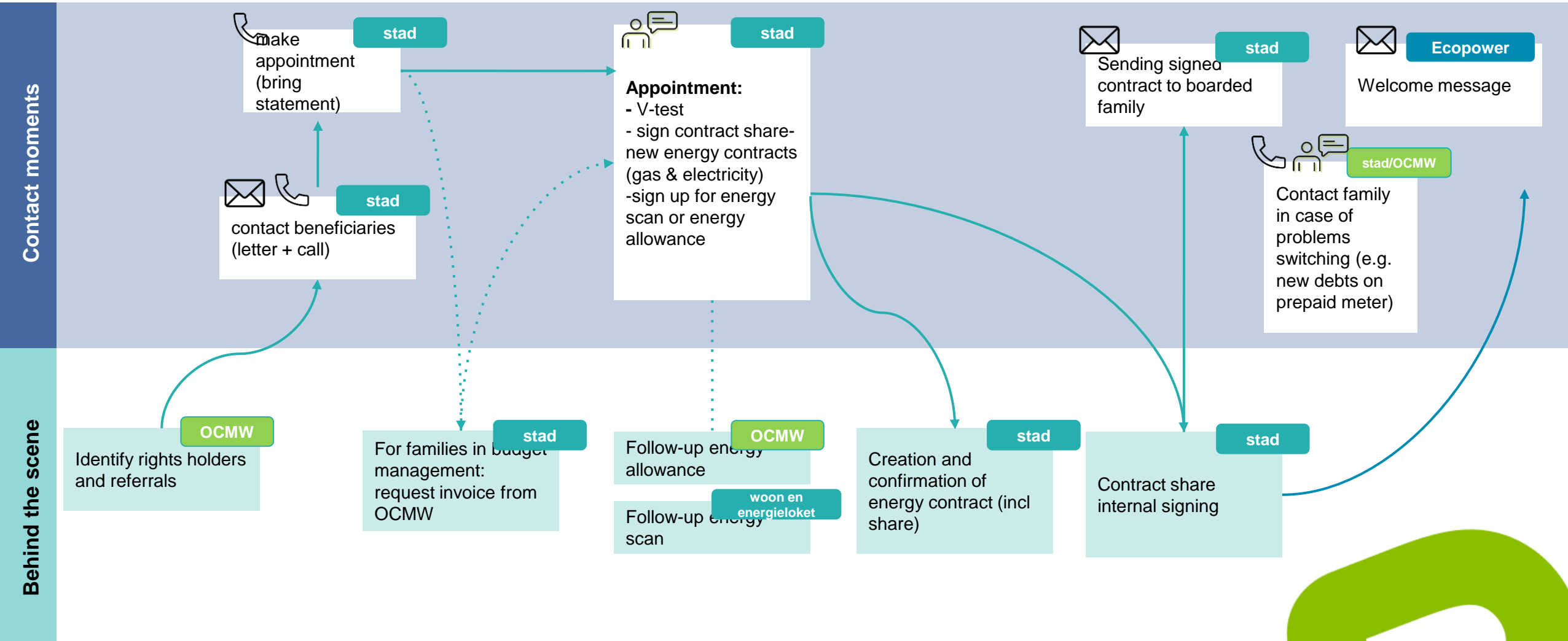
Co-creation proces : local working groups



- City of Eeklo
- Co-operative Ecopower
- DSO
- OCMW
- Social organisations
- Vulnerable households



Customer journey process



Preliminary results startup

34

Households contacted

€185 avg yearly savings energybill incl monthly saving formula

20

appointments

€227 avg yearly netto savings

14

Households participate

Reasons not to join yet:

- New debts with DSO (prepaid meter) prevents transfer
- Consumption profile : cheaper supplier found at the moment of the V-test simulator
- long term contract (3y) at fixed price from before the energy crisis

POWER UP scaling up timing

2023 Optimize pilot project Eeklo

- evaluation testfase **20 households** oktober
- Scaling up to **100 households** in 2023
- After proces optimalisation intake: from manual to automatic

2024 Ecopower

- evaluation pilot project Eeklo 100 households (organizational, procedural, technical, financial)
- conditions for scaling up to other municipalities?
- conditions for scaling up to other citizen energy co-operatives?
- **Dissemination spring 2025, only limit for replication is extra co-operative production**



POWER UP 2.0 : what can I do?

-> Preparation 3 roles



PROJECT

- Energy co-operative
- Injection kWh
- Co-operative energy sharing



SPONSOR

- Pre-financing co-op share
- Rolling fund
- Default of payment



CARETAKER

- Selection participants
- registration and first-line follow-up
- Default of payment

Challenges

Target group:

- Selection criteria
- [How are we going to reach](#) those vulnerable households

Caretaker:

- comparing energy contracts and energy suppliers (simulator regulator)
- Time commitment intake (at least 1 hour per household)

Task package:

- [Follow up](#), even after the household has joined

Personal communication (calling and referring) works best

- contact details
- [clear language](#), concise information
- Working in accordance with GDPR

Limit [administrative burden](#) for all parties:

- 1 appointment where both participation and energy contact(s) are arranged
- automation intake procedure



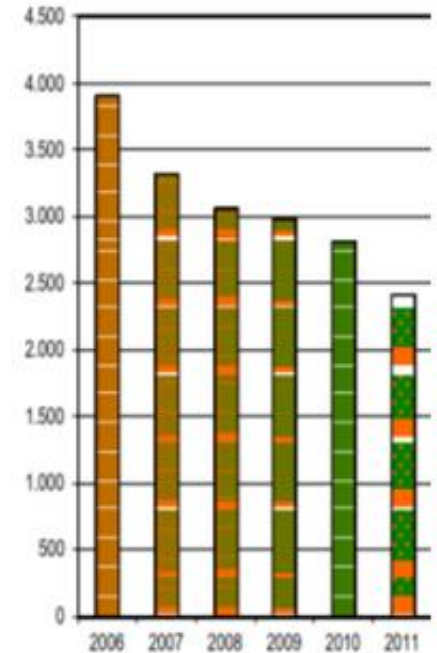
Energy efficiency measures

Ecopower : updated information to the members

- Energy saving tips : links to official tools & support
- Monitoring tool counters : www.energieID.be
- Group purchase PV : addendum split incentive tenant-landlord

Woonwijzer : visit Energy auditor with energy savings package

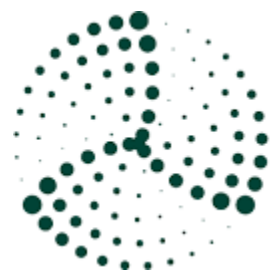
- LED
- Draft strip
- Radiator foil
- Table socket with switch
- Discount coupon elektro A+++



RU ER

Thank you!

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Ecopower
CV



POWER UP - València Pilot Case

Arturo Zea

25/10/2023



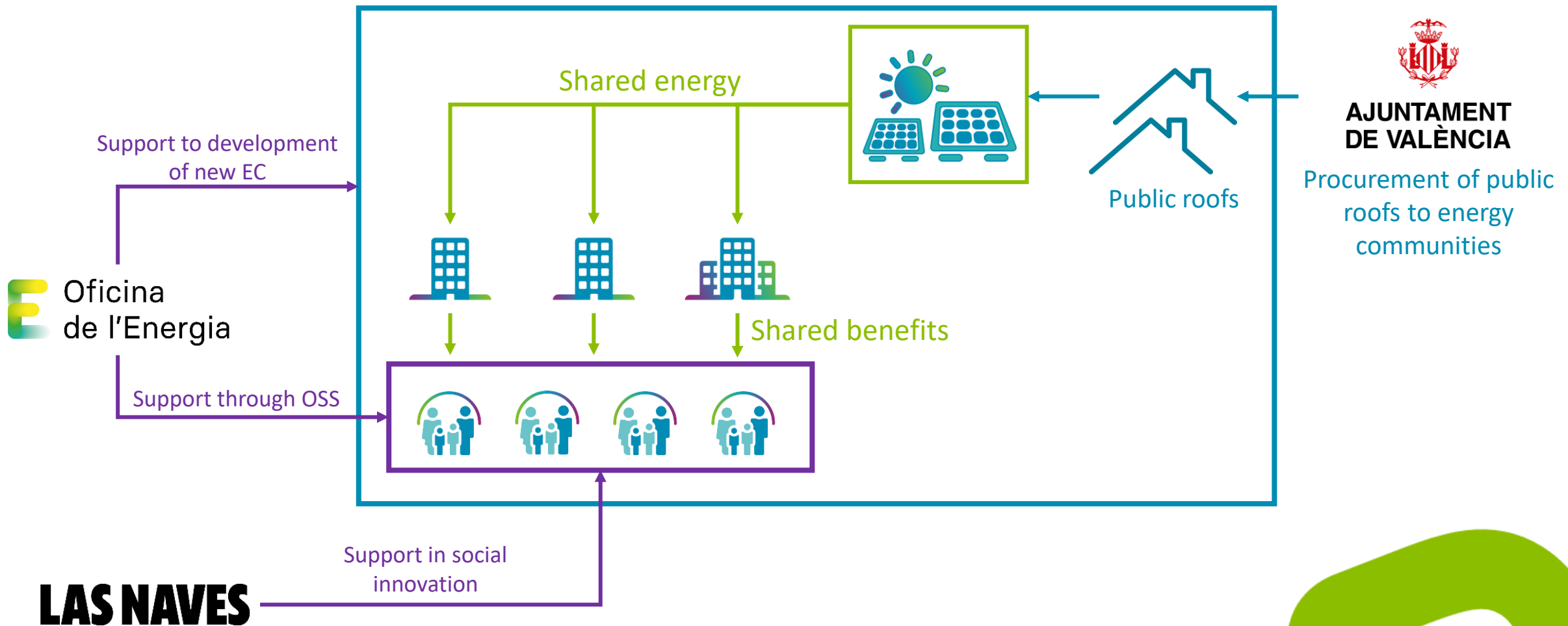
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València objective: Promotion of 2 different models

- **Renewable Energy Communities:** facilitate public spaces to citizen-driven initiatives, setting a quota of X% of shares for vulnerable households.
- **Public service of renewable energy self-consumption:** the municipality directly invests, operates and distributes renewable energy installations in municipal spaces. Shares are allocated among public buildings, vulnerable households, citizenship in general and SMEs. The municipality receives a fee-payment in return.

Valencia Pilot – Energy Communities

Energy communities



E Oficina de l'Energia

LAS NAVES


AJUNTAMENT DE VALÈNCIA

Procurement of public roofs to energy communities

CEL Castellar-L'Oliveral



CEL

comunitat
energètica local
Castellar - l'Oliveral

COENSOMA



Solidary Energy Community

+ 4 more RECs legally constituted in different districts

LOCAL EVENTS

Periodic gathering of EC in the city inviting stakeholders from public, private sectors and academia

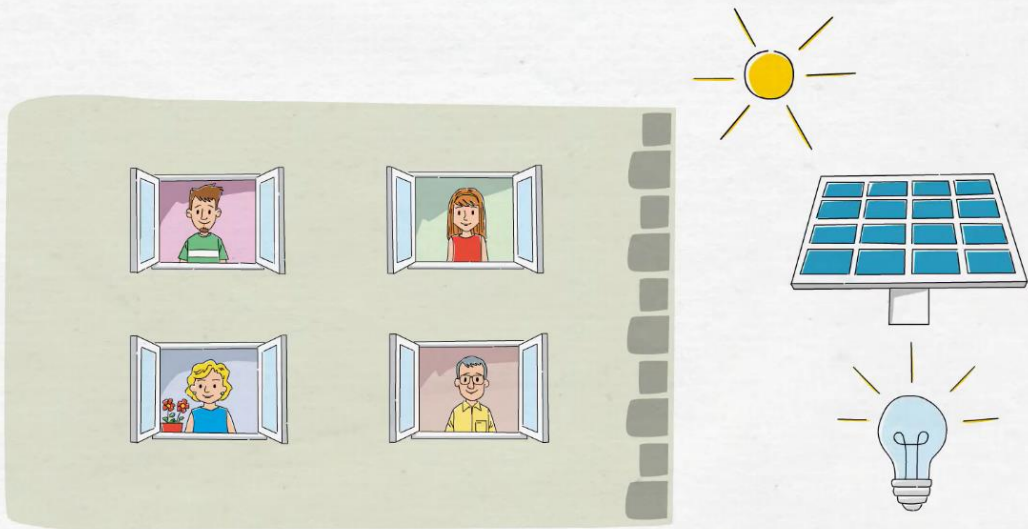
- Offer OSS-Energy Office mentoring services for ECs.
- Space for citizens to explain their initiatives, goals and needs.
- Foster the creation of a Local Network of Energy Communities, to promote peer learning, develop joint purchases and services...
- Listen and collect the needs of emerging ECs and find solutions from the public/private sector.

Encuentro de
**COMUNIDADES
ENERGÉTICAS**
de la ciudad de València

Oficina de l'Energia
15/9/22
17:00H

Más información e inscripciones en:
<https://climaenergia.com/noticies-961061582> - oficinaenergia@climaenergia.com

Logos: AJUNTAMENT DE VALÈNCIA, pu, iat, Missions València 2030, LAS NAVES, avaesen, inderlec, @edes



CEL

comunitat
energètica local
Castellar - l'Oliveral

CEL Castellar-L'Oliveral

[First successful case of Energy Community in València]



comunitat
energètica local
Castellar - l'Oliveral

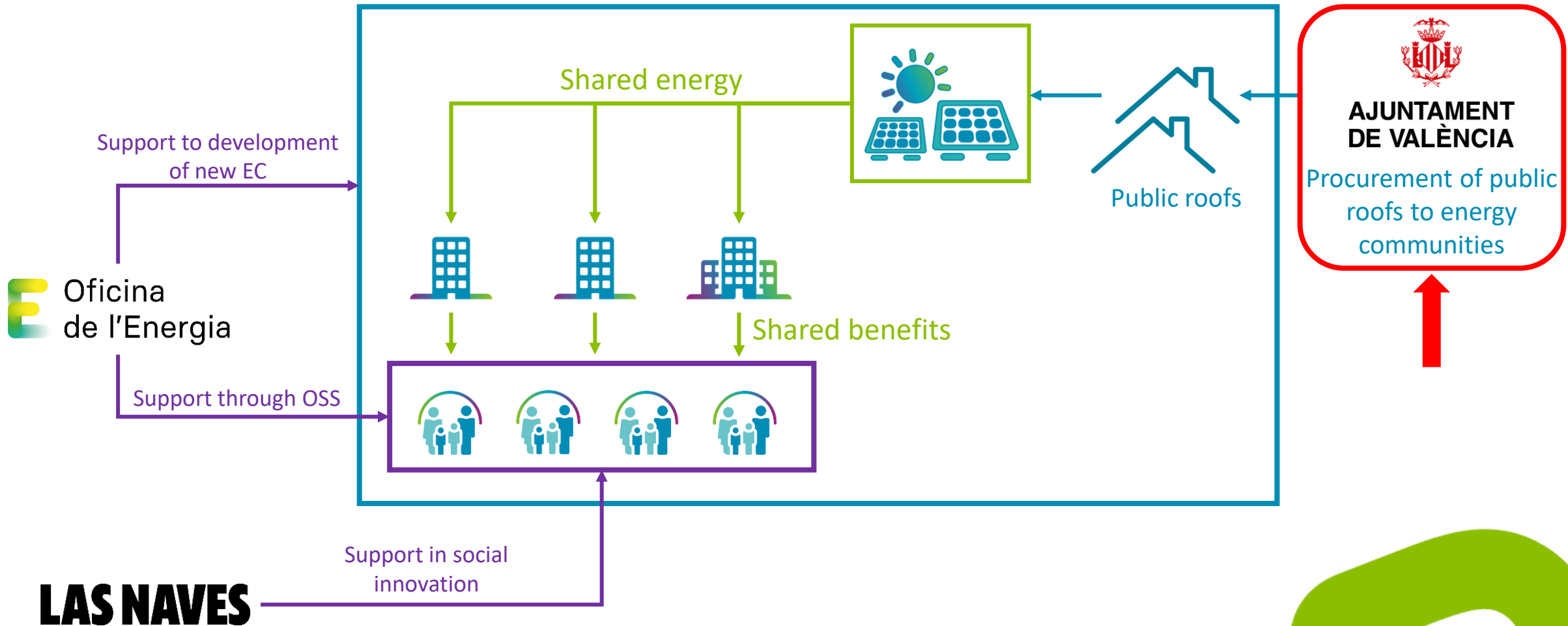


Municipality Role

- Technical, legal and administrative support from VCE through its Energy Office, as well as information and recruitment campaign.
- **Intermediation** between association, installation company, DSO, licensing authorities...
- **Facilitator** of public roof lent to the association during project lifetime (at least 25 years).
- VCE as member, acquires and distributes for free 3 kWp among vulnerable households.
- Beneficiaries selected in coordination with Social Services (vulnerability criteria).
- VCE signs on behalf of vulnerable participants and keeps control over their participation (yearly re-assessment).

Valencia Pilot – Energy Communities

Energy communities



How could this procurement work?

- Only ECs can apply, those following EU Directives principles.
- Promote and guarantee a standardized, open procedure for all projects, looking for the best legal solution.
- The future PV plants (+ other energy assets) will be owned and financed by the EC, including maintenance, insurance...
- What can the municipality ask in return? **Inclusion of vulnerable households / social dynamization / awareness raising activities...** instead of rental fee and/or **share of energy**.
- Municipality / VCE intermediates and facilitates inclusion (and sets eligibility criteria) of energy vulnerable households in the scheme.

Opportunities

- Foster public participation in the energy sector (driving private investments), help creating a network of Energy Communities in the city, having the Right to Energy as one of the core principles.
- Driving a fair and inclusive energy transition, increasing energy culture and activating/engaging citizens for deploying new local services (efficiency, mobility, energy retrofitting, local food...).
- Align collective self-consumption with **efficiency measures, bill optimization, behavioural change...**



EP mitigation through energy efficiency

- The Valencia pilot will promote different activities through its OSS, targeting vulnerable households, including:
 - **Collective workshops** around energy efficiency, bill optimization and renewable energy.
 - Provision and/or installation of **micro-efficiency energy kits**.
 - **Tailored advice** to understand and optimize bills, get to know energy rights and subsidies, and also about behavioral change to improve energy efficiency at home.
- Different target groups already identified in synergy with other initiatives happening in the city + communities built around POWER UP models.



POWER UP expected impacts

- More **co-creation** sessions around business models (3 sessions already).
- Involve **130 energy-poor households** in our schemes of renewable energy production.
- Involve **170 additional energy-poor households** in other energy-poverty mitigation measures.
- Deploy **700 - 1100 kWp** of nominal power of renewable energy production.
- Enhance the capacity on energy poverty topics of **67 people** (public officers and other partners).
- Trigger **0.06 GWh/year** of primary energy savings.



Short-term ambitions

- **Unlock** procurement process allowing ECs to start their projects and pave the way for more EC all around the city.
- Continue and scale-up **mentoring process** to EC from our OSS, with a special focus on identification and engagement of vulnerable households.
- Deploy (through OSS) new information and training materials, organize workshops and events, addressing vulnerable households, aligning **Right to Energy** and energy efficiency concepts with collective energy projects based on renewable sources.



Thank you!

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Thank you!

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