Becoming an Energy Hero

Our team

Ville Pellinen

Sumi Moon

Ásta Ágústsdóttir

Shreya Sood

“We have systematically sought to reduce our oil consumption
...
we [therefore] think oil consumption is really reasonable and we hope that there will be no need to renew the whole system for such an old house with expensive money when the next owner is likely to demolish it.”

-Anonymous oil-heater respondent from questionnaire

Research Methods

Expert Interviews

Commissioner workshops
and interviews, Omakotiliitto
Lämmitysenergia Yhdistys
Kela, ARA, The Finnish
Climate Change Panel

Desk Research

Domestic & international regulation.
Domestic & International cases
Energy transition studies

Cultural Probes

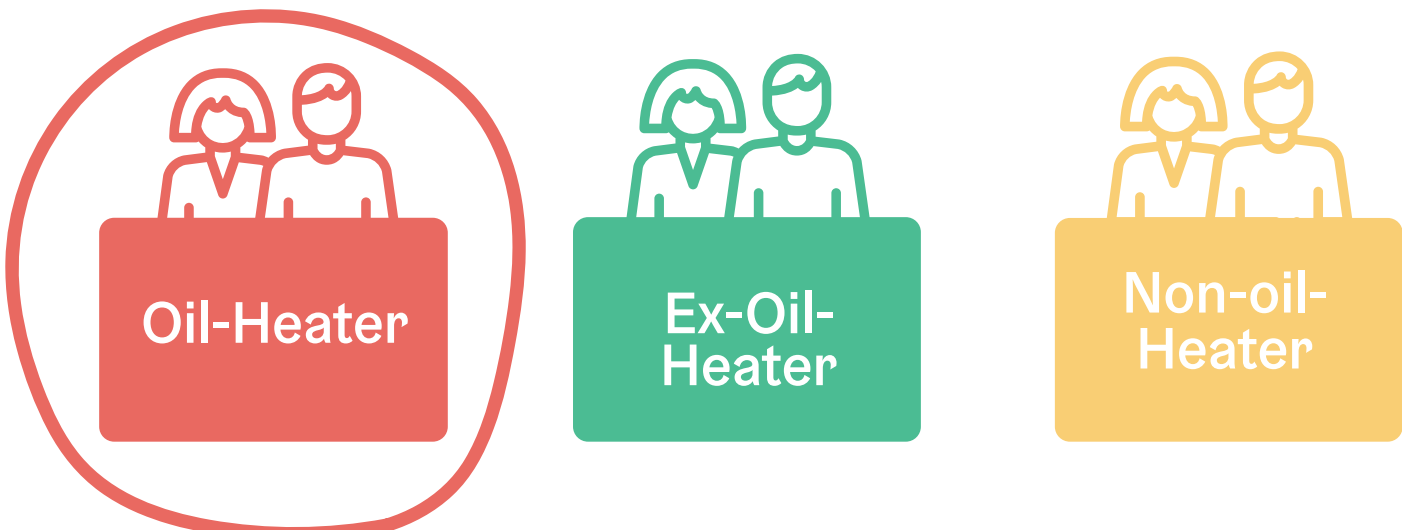
Remote interviews with residents
Oil-heater diaries

Questionnaire

3774	Answers in total
959	Oil-heaters
763	Ex-oil-heaters
2052	Non-oil-heaters
24	Multiple-choice questions
7600	Rows of open text answers

Household types

Household types



Who are the oil-heaters?

60%

are **older than 60**

90%

perceive their house's value to **remain stable or decrease**

70%

emphasize **financial aspects** when choosing heating solutions

60%

have considered switching to an alternative heating solution

How do they differ from the ones who have already transitioned?

vs.

How do the oil-heaters differ from the ones who have already transitioned?

60% vs. **12%**

haven't chosen the heating solution themselves

How do the oil-heaters differ from the ones who have already transitioned?

70% vs. **59%**

are ready to invest less than 10 000 € to a new heating solution

invested more than 10 000 € to a new heating solution

How do the oil-heaters differ from the ones who have already transitioned?

85% vs. **75%**

are aware of the government's post-oil transition aims

How do the oil-heaters differ from the ones who have already transitioned?

50% vs. **11%**

would need public subsidies for the heating transition

Barriers & Enablers for the heating transition

Financial

Technical & Process

Knowledge & Values

Regulatory & Markets

Key barriers

Financial

- Lack of financial incentives
- Insufficient funds & financing

Technical & Process

- Uncertainty of alternative solutions
- Complex renovations

Knowledge & Values

- Don’t know what to do
- Lack of peer support & recommendations

Regulatory & Markets

- Lack of quality guarantees
- Waiting for the right timing

Enablers

Financial

- Lack of financial incentives
- Insufficient funds & financing

Technical & Process

- Uncertainty of alternative solutions
- Complex renovations

Knowledge & Values

- Don’t know what to do
- Lack of peer support & recommendations

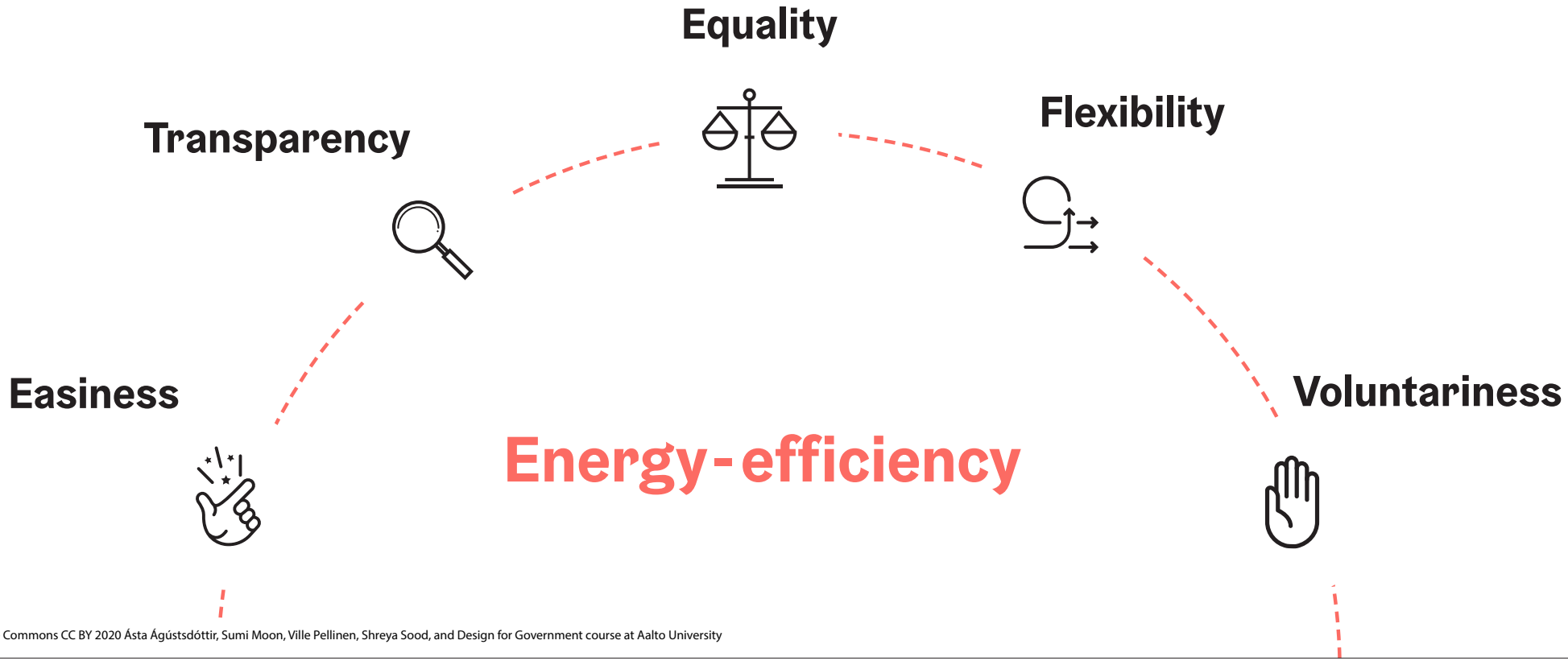
Regulatory & Markets

- Lack of quality guarantees
- Waiting for the right timing

Key Insight

Most residents are willing to transition to a different means of heating to save costs in the long-term but lack certainty and trust regarding the available options.

Aims of the proposal



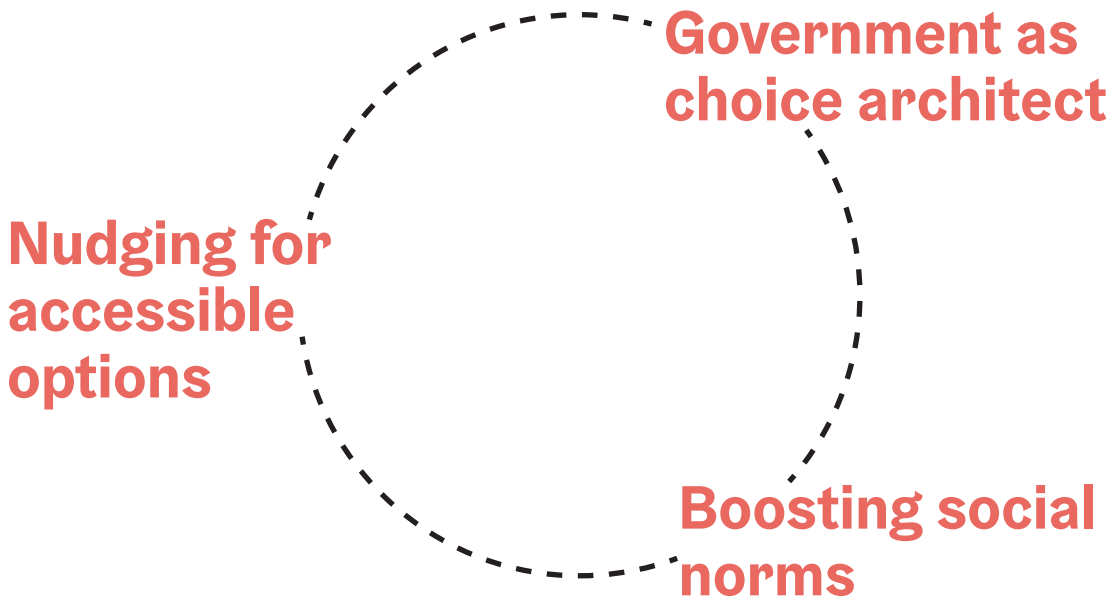
Roadmap

Energy Efficiency

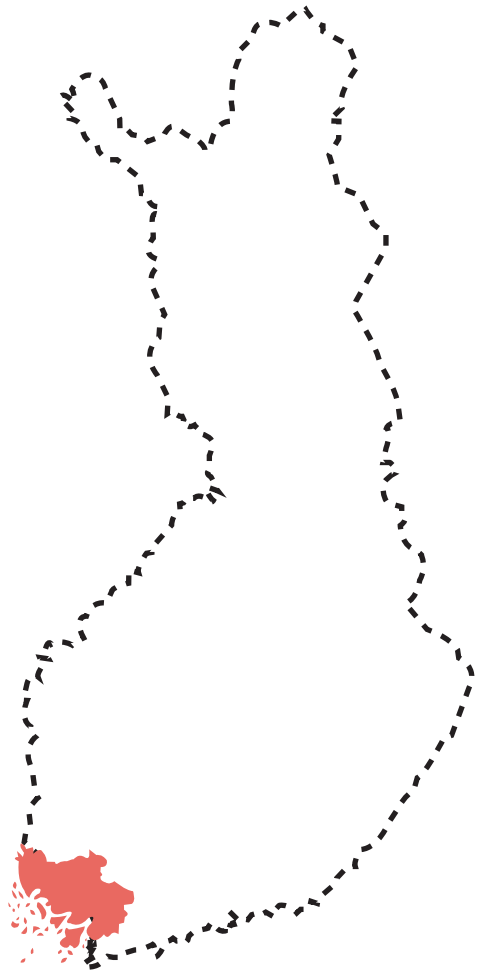
Post-oil transition

Carbon neutrality

How do we get there?



Regional pilot



Varsinais-Suomi

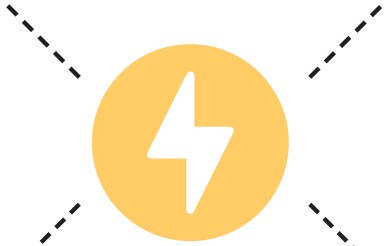
Role of stakeholders

Government

- Pilot plan & revise
- Platform provider
- Financial support
- Energy-efficiency measurement

Municipalities and region

- Pilot & Platform managin
- Auditing control
- Managing the 3rd parties for building trust



Associations

- Sharing information
- Invitation managing

Energy providers, Solution providers, and Grid companies

- Provide different energy sources and energy solutions

Overview of the journey

Invitation for residents

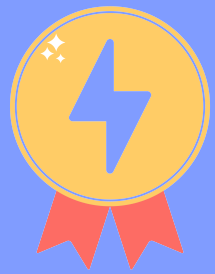
Auditing/ Self advisory

Set of pro-posed actions

Financial & implementation support

Sharing success stories

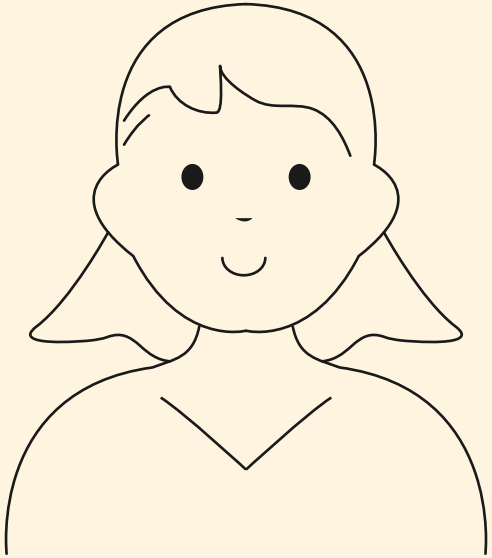
Energy Efficiency tracking



EnergyHero

Journey to becoming an Energy Hero

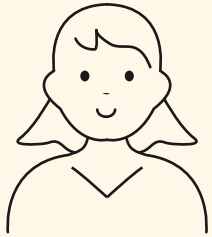
Introducing Vivi

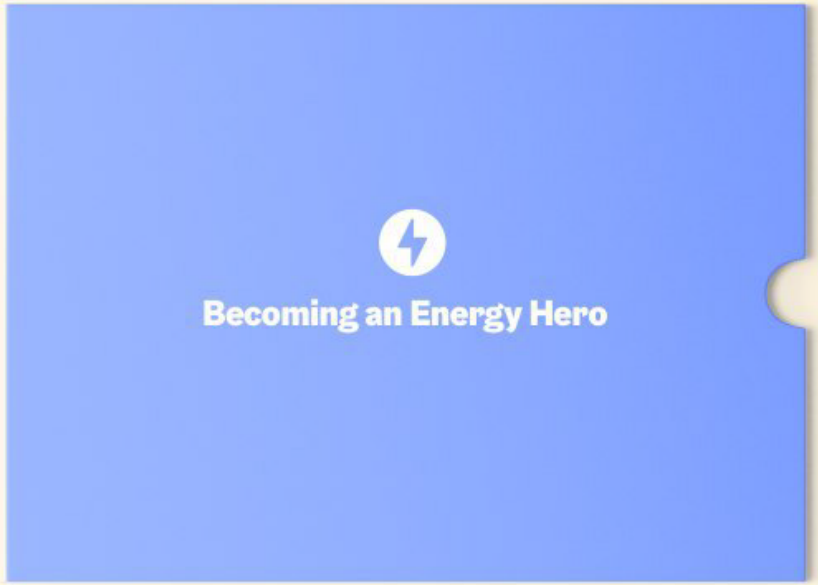


Age: 60 yrs
Financial status: Pension
House type: Detached house
Location: Salo
Perception about transition: Aware but hesitant

Step 1

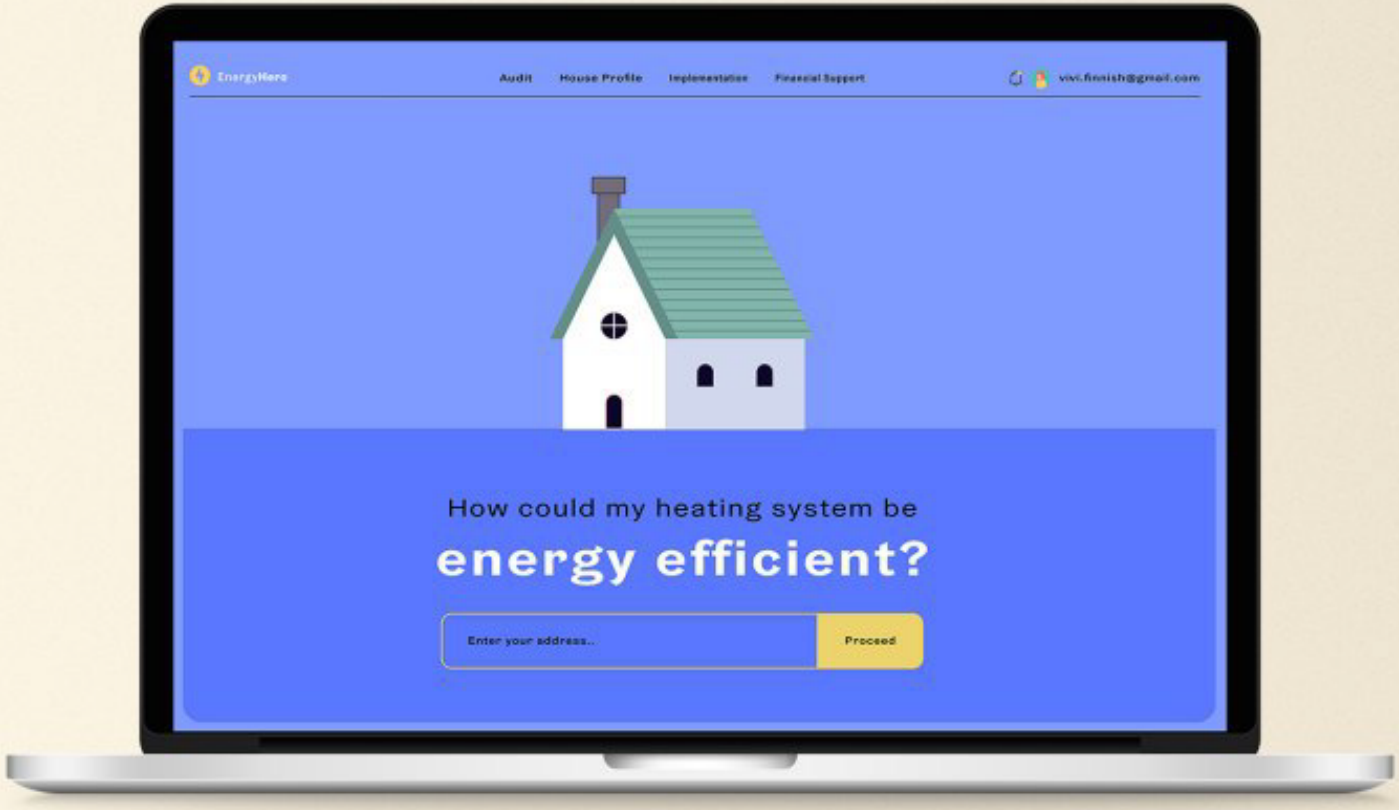
Invitation





Step 2

Introduction



Step 3

Audit

EnergyHero

Home

Hero Package

Audit

Financial Support

Implementation

Settings

Support 24/7
Contact us anytime

Start

Audit | House Profile | Compare

vivi.finnish@gmail.com

Housing situation

Dwelling type

Total floor area

Heating source

Supplier

Number of occupants

Years of residence

Assessment

Date of assessment

Type of assessment

Practicalities

Estimated heating bills for the last 3 years — Attach Files

Do you have a pension plan — Attach Files

House Ownership documents — Attach Files

How are your neighbours doing?

84%
Successful Registrations

Ground source
40 %

Air source
18 %

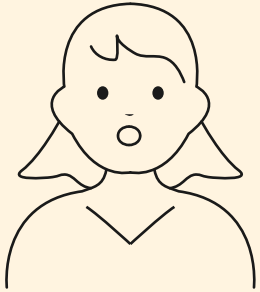
Insulation
26 %

Know More

Step 4

House Profile

Choice architecture of proposed actions, nudging towards the most desired call of action.



EnergyHero

House Profile

Ympäristöministeriö
Miljöministeriet
Ministry of the Environment

17 Any Street
District
Any town
FI 1234

Dwelling type: Detached house
Date of assessment: 09 November 2020
Date of profile: 12 November 2020

Reference number: ABC-0123-4567-8900
Type of assessment: 165 m²
Total floor area: Self via website

Top actions you can take to save money and make your home more efficient

Possible measure	Typical Cost (in Euros)	Covered in Hero Package
1. Enhance insulation	4000-6000	✓
2. Install a ground source heat pump	15000-20000	✓
3. Install an air source heat pump	2000-3000	✓
4. Renovating windows and doors	10000 -15000	✓

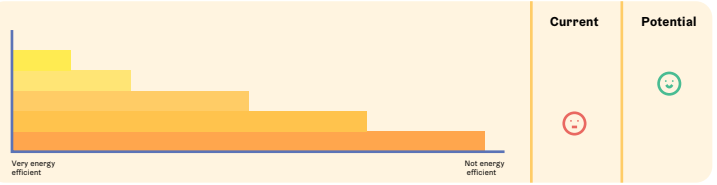
Highly recommended Moderately recommended Recommended

We highly recommend you to enhance the insulation of your house and install a Ground-source heat pump to maximize your energy effciency.

Estimated monetary savings upon switching to Ground-source heat pump and improving insulation

Estimated energy bills for 5 years with current solution	10,000 e
Estimated energy bills for 5 years with recommended solution	5,000 e
Over 5 years you could save	5,000 e

Estimated energy efficiency upon switching to the recommendation



Choice architecture of proposed actions

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Nudging towards the most desired call of action

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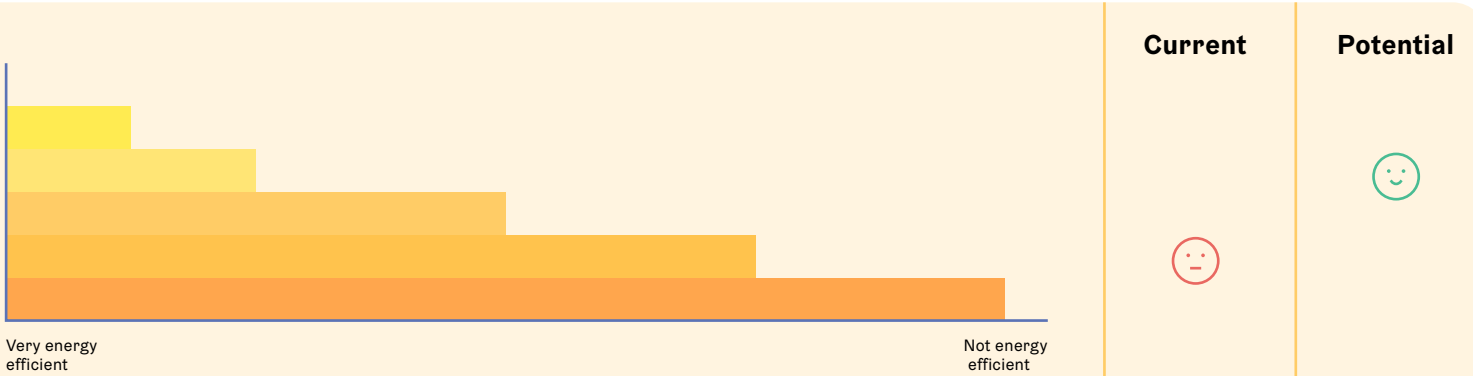
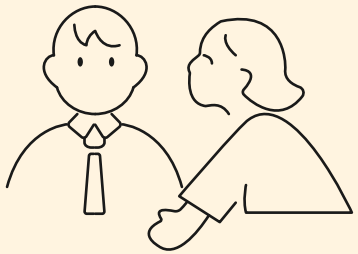


Step 5

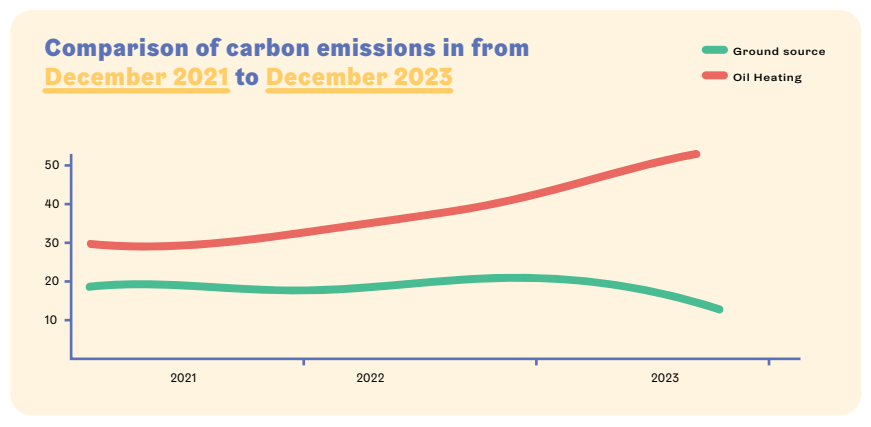
Financial and implementation support

Step 6

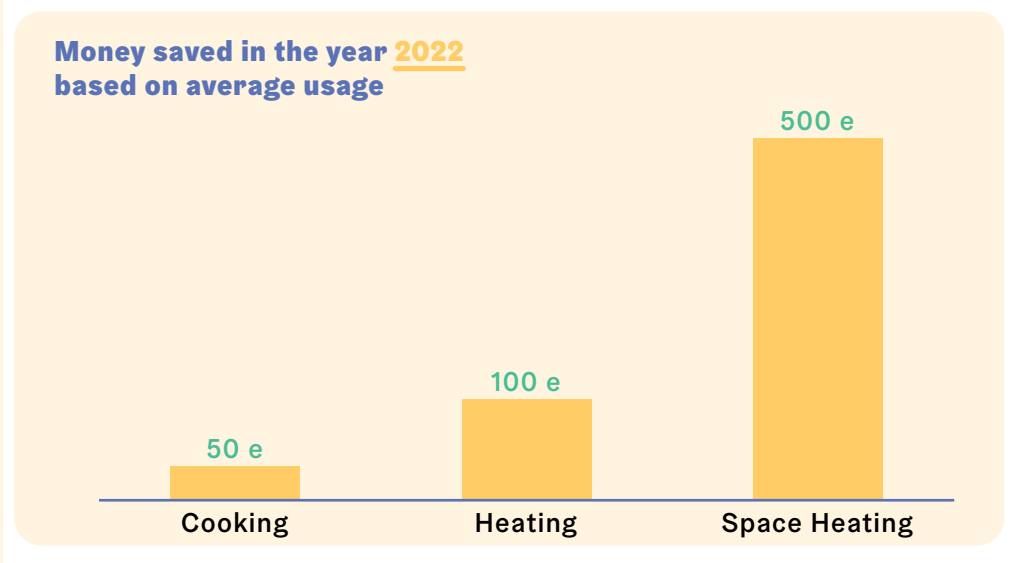
Compare



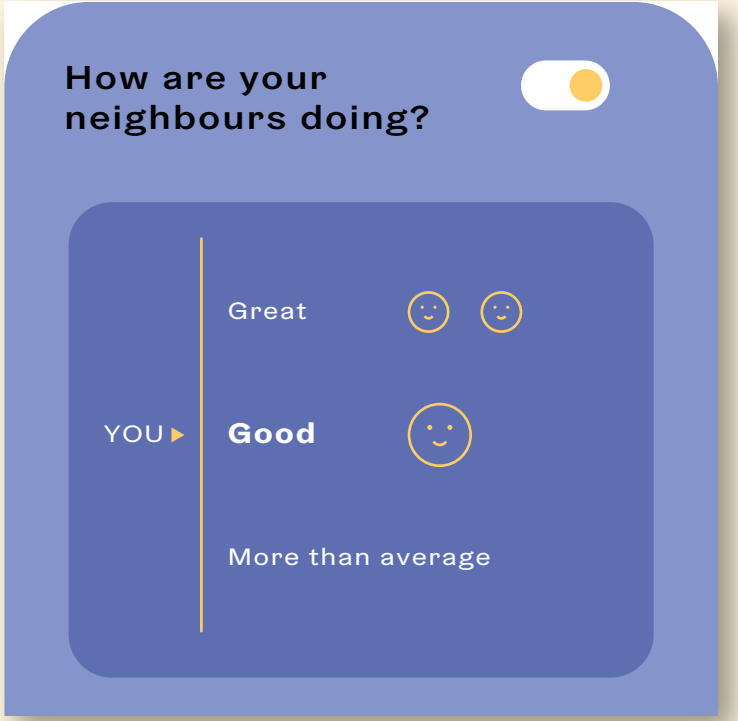
Carbon Emissions

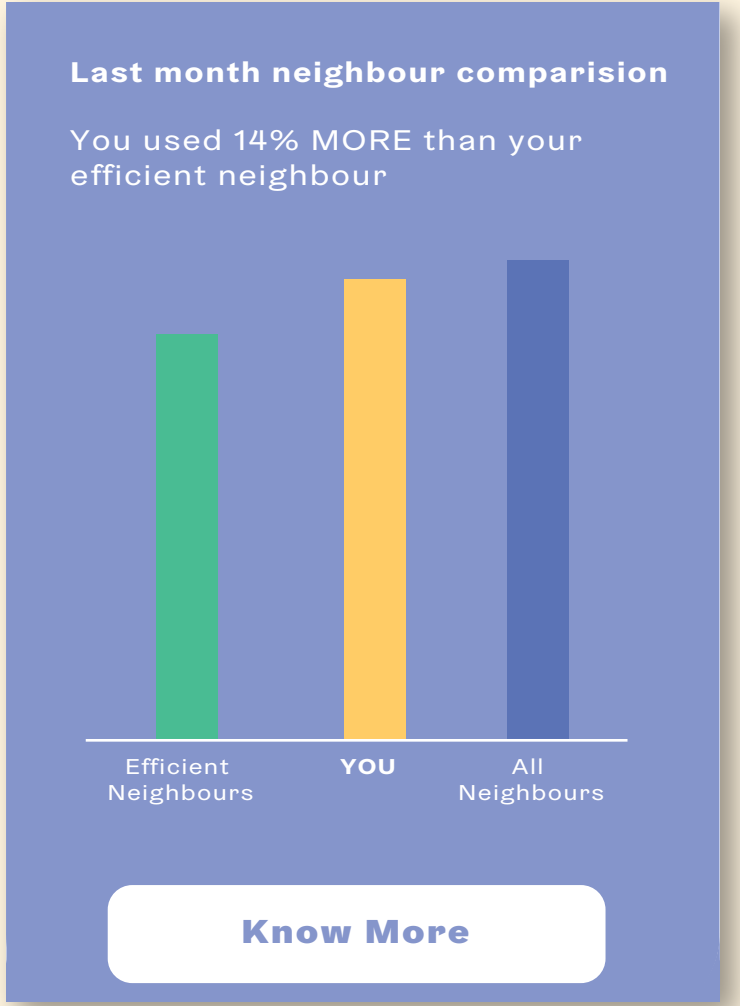


Savings



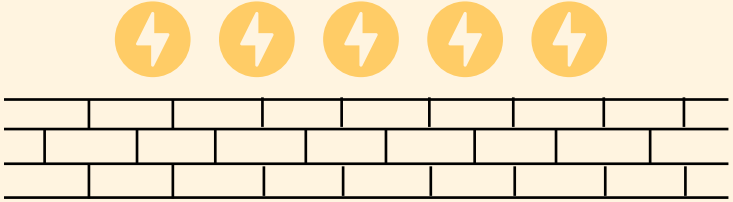
Comparison with neighbours to boost social norms

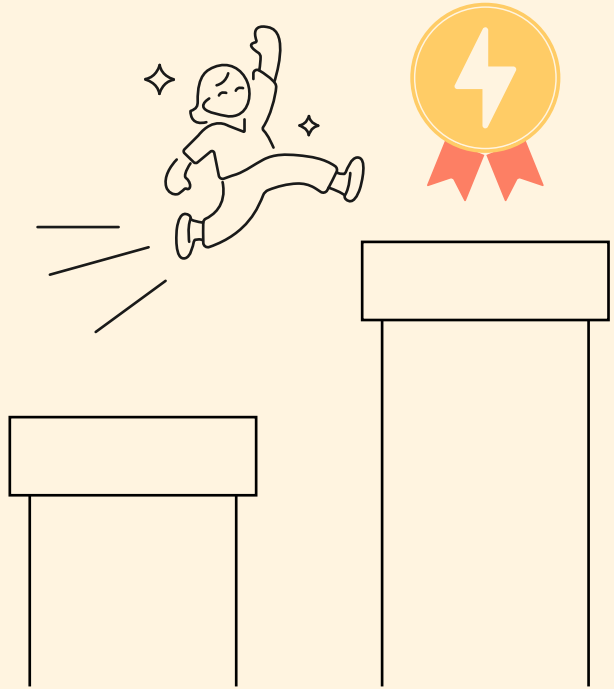




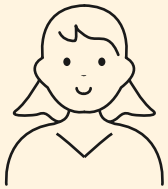
Step 7

Become an Energy Hero





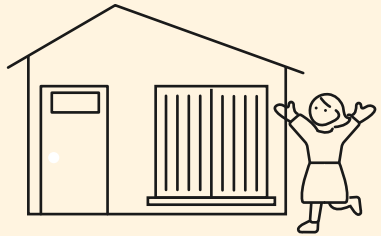
Vivi's Story



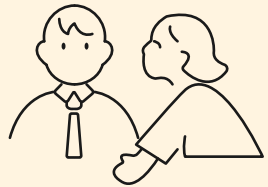
Gets an invitation

Introduction to enery hero

Does the self-audit



Upgrades the insulation



Compares her impact

Shares sucess stories

Timeline

Starting pilot

6 months

Most crucial for the project

- Identify houses with oil heating
- Choose motivated people for pilot
- Find ambassadors willing to share their experiences

Desired impact

- Starting the pilot
- Awareness and increased trust from the residents

Pilot results

12 months

Most crucial for the project

- Scaling up to a national level
- Learning and adapting from pilot

Desired impact

- 30% of households from pilot will have transitioned and 50% in process of transitioning
- Recruited 10-20 ambassadors from pilot group

Outcomes

5 years

Most crucial for the project

- Concrete results
- Just transition for all residents

Desired impact

- 50% of households transitioned to alternative energy source
- 30% done energy efficiency improvements to house or in process of transitioning
- Happy residents

Energy Hero

Invitation --- Auditing --- Profile --- Compare --- Success story

WHY it's good for the Government

- Build trust
- Voluntary participation
- Achieve post-oil-transition

WHY it's good for the residents

- Guaranteed quality
- Choose a feasible solution
- Achieve long-term benefits