COMMUNITY MEETINGS

PARTNER RESPONSIBLE: KAMP C

21-09-2020
Project Number: NWE 588

Project acronym: cVPP

**Project full title:** Community-based Virtual Power Plant (cVPP): a novel model of radical decarbonisation based on empowerment of low-carbon community driven energy initiatives

**Project start date:** 20-Sep-2017 (36 months)

Project end date: 19-Sep-2020

**Work Package:** WP. T3 Replication

Deliverable No: T3.2.1

**Due date:** 15-06-19

Submission date: 21-09-2020

**WP Leader:** Municipality of Apeldoorn, GA

**Partners involved:** Municipality of Apeldoorn, GA/ Kamp C/ Templederry Renewable energy Supply Limited. T/A Community Renewable energy supply, CRES

Version: 1.0

**Authors:** Jet Groen, Maro Saridaki, Randall Hanegraaf, Stephanie Cummins, Gregg Allen
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2. **INTRODUCTION**

2.1. **GENERAL**

The three Replicating partners, GA Apeldoorn (NL), Cres (IRE) and Kamp C (BE) had the same assignment, to find communities who are interested to implement a cVPP.

At the start of the project cVPP it soon became clear that the partners each had to challenge this in their own way. There were differences in size, time scale, in challenge,..

The different plan of achievement has been described in the action plans, see WP T3 | activity T3.1 | deliverable T3.1.3 Community specific action plans.

In this report we will describe the application of the action plan, the Community Meetings.

The Community meeting has as purpose to inform and motivate citizens. At the same time to provide information and/or tools that are needed to successfully implement a cVPP.

TU/e and Duneworks has been participating in and being involved in designing the meetings. The implementing partners were participating as well.

The CONTENT AND THE ORDER will be different for the three partners:

<table>
<thead>
<tr>
<th>Event Type</th>
<th>BE</th>
<th>NL</th>
<th>IRE</th>
</tr>
</thead>
<tbody>
<tr>
<td>**Community meetings</td>
<td>preliminary stage</td>
<td>to inform and test expectations**</td>
<td>x</td>
</tr>
<tr>
<td>**Community Meetings</td>
<td>trajectory</td>
<td>to inform and motivate and prepared</td>
<td>3D days</td>
</tr>
<tr>
<td><strong>Competition</strong></td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>**Community Meetings</td>
<td>winners' competition**</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>**Community Meetings</td>
<td>interactive sessions**</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>National training seminars WP LT 3.5</td>
<td>Each seminar will be evaluated by its participants.</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>
The results will be analysed after the interactive sessions have been finalised, and ‘common lessons’ will be identified if applicable. The results will be recorded in the reports:

- More information about the competition and the winners see: Report **WPR del. 2.2 Competition within community to increase engagement & learning**: selected communities provide their own proposal to implement (part of a) cVPP

- Report **WPR del. 3.2.5 Reports from Community Meetings**;
  Input to the revision of KampC, TEA, CRES, GA, and subpartners will ongoingly test the enriched and revised MoRe model during the competition & in the process of creating realisation plans. The lessons from 3 countries will be brought together into one report and discussed with MoRe partners TUe and DW during the sessions planned in WP MoRe.

- Report **WPLT del. 3.5 National training seminars**
  Each seminar will be evaluated by its participants to further improve the training package.
3. **COMMUNITY MEETINGS GEMEENTE APELDOORN (GA)**

3.1. **COMMUNITY MEETINGS | PRELIMINARY STAGE | TO INFORM AND TEST EXPECTATIONS**

During activity 1 (engaging local stakeholders) Gemeente Apeldoorn focused identified the most promising neighbourhoods in Apeldoorn. Each of them had been provided with a specific energy consultant. These neighbourhoods were called “Wijken van de Toekomst”, which are neighbourhoods that will be heavily focused for the energy transition. As example, these frontrunner neighbourhoods will most likely be the first neighbourhoods that will transition from gas to an alternative type of heating. During the first activity, the energy consultants have been actively engaging residents and stakeholders in these neighbourhoods, trying to find or create possible cVPP communities. This approach did not lead to communities, but has led to several insights, some positive and some negative:

**Positive**
- Citizen's hear about new sustainable developments more often, and can be more prone to working on sustainable initiatives themselves.
- Other initiatives, like electric charging, energy storage and energy reductions appeal to people.
  - This can be used to “start small, then grow towards cVPP later on”

**Negative**
- Other large projects (like a new type of heating) can be a massive barrier to starting a cVPP.
- A cVPP is a complex concept, one that is not easily understood or explained in a couple of minutes. It takes more time for residents to grasp the concept and form a community.
- Leading figure(s)/key people are needed to organize a group. This is not readily found by talking to people in a neighbourhood.

Gemeente Apeldoorn has therefore chosen a different approach in order to build communities and to grow the cVPP concept. First of all, the area has been widened to include residents of the municipality of Apeldoorn (except Loenen). The community meetings and energy competition were merged into one large trajectory. The new trajectory was created in order to ensure residents of gemeente Apeldoorn were given sufficient knowledge and tools for them to work on the cVPP concept and build a community around it. The following section will describe the concept of the meetings throughout the energy competition, which serve as the community meetings. The following section will describe the design of the energy competition and it's meetings. WPR del. T3.2.2 - Competition will describe how the workshops were experienced, how the participants improved, what they learned, and what their final result was.
3.2. **COMMUNITY MEETINGS | TRAJECTORY |**

TO INFORM AND MOTIVATE AND PREPARE

The energy competition was created to do three different things: 1) inform the residents of Apeldoorn on the concept of a cVPP by using the knowledge gathered within the cVPP project, 2) motivate residents/groups/communities within Apeldoorn to work on the concept of a cVPP, and 3) Build the community throughout the process of the energy competition. Translated to English, the energiewedstrijd was named “Build your own power plant, together!”

<table>
<thead>
<tr>
<th>Meeting</th>
<th>When</th>
<th>Where</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kick-off</td>
<td>October 16\textsuperscript{th} 2019</td>
<td>ACEC Roggestraat 44 7311 CD Apeldoorn</td>
</tr>
<tr>
<td>Workshop 1: What is an energy community</td>
<td>November 7\textsuperscript{th} 2019</td>
<td>ACEC Roggestraat 44 7311 CD Apeldoorn</td>
</tr>
<tr>
<td>Workshop 2: Find the values of your community</td>
<td>December 11\textsuperscript{th} and December 18\textsuperscript{th} 2019</td>
<td>CODA – Vosselmanstraat 299 7311 CL Apeldoorn</td>
</tr>
<tr>
<td>Workshop 3: Technisch Design &amp; role in de market</td>
<td>January 15\textsuperscript{th} 2020</td>
<td>Stadhuis Marktplein 1 7311 JM Apeldoorn</td>
</tr>
<tr>
<td>Price announcement</td>
<td>March 17\textsuperscript{th} 2020</td>
<td>Gemeentewerf Zuid Aruba 4 7332 BK Apeldoorn</td>
</tr>
</tbody>
</table>

**Energiewedstrijd:**
**Ontwerp samen je eigen energiecentrale!**

**Competition design**

The competition was made up of several elements:

- A written document with the rules for participation
- A kick-off, open for residents of the municipality of Apeldoorn (Loenen excluded)
- A set of three workshops, aimed to bring knowledge and guide the participants
  - Workshop “What is an energy community”
  - Workshop “Find the values of your community”
  - Workshop “Technisch Design & role in de market”
- Guidance throughout the process
- A clear assignment/objective
- A website for communication
- The criteria for their design and the evaluation for evaluation by a jury

The following section will describe each of these segments in more detail.
**The rules**

The competition is performed by a public party - the Municipality of Apeldoorn. It is therefore required to ensure equal treatment and equal chances for all participants. The entire energy competition was pre planned and written out in the official “Guidelines” containing all information for the participants, including the dates of the workshops, the deadlines for the cVPP design, the jury, evaluation and the prices. The document was shared by Gemeente Apeldoorn and was also placed on a new website page. The announcement of the energy competition was widely spread in Apeldoorn.

**Website**

A new website page was created as a tool for communicating between the residents and the organization. The website included compact segments of information. The website was also as a formal subscription to the competition. After the workshops, the material was shared through the website, publicly available. The following picture shows the main page of the website.
**Guidance**

Three teams entered the competition. They were each assigned one of the “Energy consultants” which worked with us on the cVPP project since the start. The teams could ask them for brainstorming towards writing their cVPP design, and they were also able to help them take some first steps. Throughout the trajectory the energy consultants would mostly brainstorm with the participating teams, they did not help writing the final design.

**Kick-off meeting**

All residents of Apeldoorn were allowed to join the competition. However, most of the residents have never heard of the concept of cVPP, nor know what it is. The kick-off meeting functioned as a “teaser”, before teams officially enter the competition and follow the workshops. Two other cVPP like project in the Netherlands provided a presentation on their trajectories, achievements and results. The cVPP concept, as developed by this project, and the rules of the competition were also explained. Finally, the kick-off aimed to help people connect to each other and form communities where needed. Contact details of the participants were shared amongst them, so that they can work together.

**The workshops**

The main part of the competition revolved around a set of three workshops that would helped residents with the cVPP process. The workshops (and evaluation criteria for the cVPP design) were centered around the knowledge we had gathered as a cVPP team.

**Workshop 1 - “What is an energy community”**

The first workshop used a first concept of the Mobilisation and Replication model, which was being developed by TU/e and Duneworks, within the cVPP project (main activity T2 – MoRe model). The model was used to provide the participants grasp the activities that they can do within a cVPP. The concept can be so complex, that it is a challenge to provide hands-on steps and choices that a community can work on, in order to progress on the cVPP concept that they would want. Luc van Summeren en Sylvia Breukers were part of this workshop and provided the background of the MoRe model as well as the exercise we did in groups.

The first part of the exercise was to prioritise their values. See figure x below. The participants were asked what they found most important. As example, if they would think a lower energy bill for the individual would be very important, they would put the red cross in the area top-left.
The second part of the exercise described several goals. Firstly some goals on “individual – household level”, then the “community level”, the “distribution grid level” and “transmission grid” level. The participants had to tag the ones they thought of as most important. As example, if the participants thought that the goal “Maximising self-consumption on household level” was important, they would tag it. Only after they went over all “sub-goals”, and tagged those they found important, the activities needed in order to achieve those “sub-goals” were revealed.

### Sub-goals & corresponding activities (Household level)

By the end of this exercise the communities had a basic idea of their most important values for a cVPP design, as well as the main activities they would have to participate in to achieve those values/sub-goals.
Workshop 2 – “Find the values of your community”

The participants of the first workshop started to get a basic idea of the cVPP concept and the types of activities they can be a part of. The second workshop focused more on their development as a community, by identifying their individual/group values. The workshop was developed by the University of Wageningen for a different cVPP-like project, and has been used in Loenen as a tool to measure the opinions and values of their residents. The workshop provides a case study and discussion, but forces individuals (and eventually the community) to make decisions within the case study. These choices directly influence the story and provide a new dilemma, a new choice to make. In the end, the decisions lead to a final situation, a type of cVPP, that the community has “chosen”. They will then be confronted with their result, and reflect whether this is still the type of cVPP they would want. In the end, all types of cVPP’s will be shortly explained.

Example of the case study with a dilemma/choice to make (in Dutch)

Example of one of the “final situations”
Workshop 3 – “Technisch Design & role in de market”

The final workshop aimed at providing the participants with all the knowledge they need for their designs. Even though the participants had now worked with the main concept of the cVPP, they did not yet know about all of the technical details, and the role a cVPP can have within the market. André Zeijseink and Jasper Kroondijk presented the story of Loenen, the technical details of their cVPP and the theory of the different types of roles a cVPP can take within the market (USEF model). This workshop had no interactive element, and revolved around knowledge through presentations and questions.

The criteria for the design and the evaluation

The teams were asked to write their own cVPP design, taking the content from the workshops into consideration. The final evaluation criteria were the following:

- Collaboration/community (max. 10 points)
- Realistic (max. 10 points)
- Scalability and Replicability (max. 10 points)

An independent jury was formed and asked to evaluate the designs by providing a score on each of the criteria. The jury represented different aspects of society – government, business and education. We asked two cVPP members (Luc van Summeren en Jasper Kroondijk) to write their “expert evaluation” of the cVPP designs on respectively social aspects/community (Luc) and technical aspects (Jasper). The judges were obviously free to form their own opinion. The jury consisted of:

- André Zeijseink (cVPP / Loenen)
- Geert Verbong (TU/e – professor energy transition)
- Anke van Hal (Nyenrode Business University)
- Jacco Rodenburg (province of Gelderland)

Price announcement

Originally planned for March 17th, the price announcement was cancelled due to the coronavirus outbreak. The pinnacle of the competition, rewarding the participants for their work and achievements, could not take place. There was some hope that the event could be postponed to a later date. However, it soon became apparent events like the price announcement would only be possible after summer, too long for the participants to await their results. In April we decided to reveal the winners through an official letter, and to use communication to spread the word.
3.3. **COMMUNITY MEETINGS | INTERACTIVE SESSIONS |**

The three winning teams were offered a follow up workshop. Originally, this was planned to be one or two large meetings with all the communities present. The focus was on the MoRe model, and how it could be used by the communities to progress on their cVPP designs. Due to corona, the trajectory had been completely changed. Each community was offered two online workshop meetings, the first one serving as preparation for the second. This process and its results will be further explained in WPR Del. T3.2.5 – Interactive Sessions.
## 4. COMMUNITY MEETINGS KAMP C

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>26/07/2018</td>
<td>Community meeting with Energy cooperative Zonnewind (Viersel)</td>
</tr>
<tr>
<td>22/08/2018</td>
<td>Community meeting with representatives of Oud-Berchem</td>
</tr>
<tr>
<td>09/08/2018</td>
<td>Meeting with representative of Woonhaven-Luchtbal</td>
</tr>
<tr>
<td>05/09/2019</td>
<td>Community meeting with representatives of Zonnige Kempen</td>
</tr>
<tr>
<td>12/03/2019</td>
<td>3D trajectory events</td>
</tr>
<tr>
<td>30/03/2019</td>
<td>3D trajectory events</td>
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<tr>
<td>24/04/2019</td>
<td>3D trajectory events</td>
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<tr>
<td>04/06/2019</td>
<td>3D trajectory events</td>
</tr>
<tr>
<td>24/05/2019</td>
<td>3D trajectory events</td>
</tr>
<tr>
<td>03/07/2019</td>
<td>Community meeting with cohousing Ekelen (Westerlo)</td>
</tr>
<tr>
<td>22/10/2019</td>
<td>Community meeting with winning community Klimaan (Mechelen)</td>
</tr>
<tr>
<td>07/11/2019</td>
<td>Community meeting with winning community Zuidtrant &amp; Stalinstraat Deurne (Antwerp)</td>
</tr>
<tr>
<td>30/01/2020</td>
<td>Community meeting with Interactive Session initiation 3 winning communities (Mechelen)</td>
</tr>
<tr>
<td>26/03/2020</td>
<td>Community meeting (Webinar)</td>
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<td>/ /2020</td>
<td>Community meeting (Webinar)</td>
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<td>/ /2020</td>
<td>Community Meeting</td>
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<tr>
<td>/ /2020</td>
<td>National training seminars WP LT 3.5</td>
</tr>
<tr>
<td>/ /2020</td>
<td>Final National training with 3 communities as pilots and EnerGent (Gent)</td>
</tr>
</tbody>
</table>
4.1. COMMUNITY MEETINGS | PRELIMINARY STAGE | TO INFORM AND TEST EXPECTATIONS

Throughout period 2 (2018), Kamp C met with a large number of stakeholders, such as municipalities, communities, energy cooperatives and citizens' initiatives about the cVPP (community-based Virtual Power Plant) project with the aim to: “Generate, use and manage renewable energy together as a community”. (see del. 3.1.1) Kamp C realised that there was a lot of interest within the Province of Antwerp in what communities can do as consumers/prosumers, but many questions remained without answers. They showed interest, but indicated that there is a need for inspiration, knowledge, before can be engaged as a community. For this reason, the communities reached were not ready to engage themselves towards creating a cVPP.

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</tbody>
</table>

In order to achieve a safe support system, Kamp C decided to take a step back and think out of the box.

**Analyse** “Where/Who are the communities?”
During the spring of 2019, Kamp C became the location for the Dream-Dare-Do trajectory of the community-based Virtual Power Plant project (cVPP). With this trajectory, Kamp C hopes to get everyone on board in the energy transition. This project focuses primarily on inspiring, informing and supporting citizens and citizens’ initiatives who want to define and apply their role in the energy transition. How can citizens collectively, consume and share energy collectively?

The series started with the **Community Meetings | Dream Days on 12 and 30 March.** Numerous interesting speakers and cases were discussed, with tangible examples of citizens and initiatives that took up the challenge in the energy transition in their own way. For example, a co-housing project, energy cooperatives and knowledge institutions shared their experiences. The participants were given the chance to voice the dreams of their communities, share them with each-other and formulate the questions they needed answered in order to approach their dreams.
DREAM DAY 1 & 2
- Inspirational presentations (1 hour) & questions round
- Work sessions (2 rounds of 1 hour) with a choice of 4 themes:
  - Community
  - Cohousing / citizens' initiative
  - Energy Cooperative / local government cooperation
  - Community / companies collaboration
- Distilling message, sharing dreams and formulating questions

DREAM DAY 1
- "Communities are the key to the energy transition!"
  dr. Ruth Mourik, Duneworks
- “Zonnewind in Zandhoven with the Sporthal Het Veld project: local green energy”
  Danny Gladines, Zonnewind energiecoöperatie
- “Cohousing Waasland in quest of circularity”
  Jacob Demeyer, Waasland Co-housing
- “Citizens invest in solar panels at Decathlon stores”
  Mieke Hesemans, Greenpulse

DREAM DAY 2
- "Communities are the key to the energy transition!"
  ir. Luc Van Summeren, TU/e
- "ZuidtrAnt: from dream to realization"
  Sophie Loots from ZuidtrAnt
- "My house is where my conservatory is: living outside the grid"
  Koen Vandewalle and Samia Wielfaert from Kaseco architecten
- "The butterfly effect of a solar panel ... how a simple wire wants to grow into a smart city"
  Marc Bellinkx van Kontich stroomt!

Kamp C organized the Community Meetings | Dare Days on April 23 and June 4.
Because after dreaming, however, comes daring. And so Participants received a card of potential to assist them in giving form to their idea. Central to this stage were questions such as: what do you need to set up a virtual power plant with your community? Who do you need, both internally and externally? Where do you want to go? With the help of the speakers' expertise, the participants were able to answer these questions and then start drawing up their roadmap. Kamp C again invited various experts, including cVPP partners Ruth Mourik (DuneWorks), Jeroen Baets (EnerGent) and Jasper Kroondijk (Qirion), but also Alex Polfiet (Zero Emissions Solutions), Wouter Cyx (Kelvin Solutions), Kris Moonen (Rescoop Flanders) and Jef van Eyck (Campina Energie).
### DARE DAY 1

- **Inspirational presentations** (1 hour) & questions round
- **Work sessions** (1 round of 2 hour) with presentations rotating on 3 theme tables:
  - Community
  - Cohousing
  - Local government
- **Distilling message, sharing questions & formulating answers**

- “Looking back at the dream days - looking forward to the dare days”
  - Soetkin Goris van [Trizone](#) | process manager
- "How do you become a player in the energy market as a community?"
  - dr. Ruth Mourik, [Duneworks](#)
- "The start-up of the cVPP 'Sint-Amandsberg Dampoort' and / or the cVPP 'EnerGent'“
  - Jeroen Baets, [EnerGent](#) | project coordinator
- "Loenen energy neutral within 20 years"
  - Jasper Kroondijk, [Qirion](#) | energy transition consultant

**Aims**
- What do I want to go for, what do I want to be able to “celebrate”?
- If that is the dream ... where am I today?
- Intermediate goals? What do I want to celebrate in the meantime?
- Sharpening questions, pitfalls and to do's:
  - **WHAT** - do I want to know to get there, what knowledge is needed?
  - **HOW** - am I going to tackle it? Which steps have already been taken, what still needs to be done? Which competencies are needed, which process questions are still open?
  - **WHO** - Is already involved today? Make an actor card!
    - Must or can be involved, what questions are there about our partnership?

### DARE DAY 2

- **Inspirational Keynote speech** (1 hour) & questions round
- **Panel Discussion** (1 hour) & questions round
- **3 separate presentations and work sessions** (1 hour)
  - Rescoops | Technical possibilities | Community forming
- **Distilling message, sharing next steps**
- **Announcing Open Call**

- Keynote: “How does the energy transition become concrete from the bottom up, with and by citizens”
  - Alex Polfliet, [ZES – Zero Emissions Solutions](#)
- Panel discussion: "Tips and inspiration for a (starting) energy community"
  - Reflection and advice from Kris Moonen | Wouter Cyx | Jef Van Eyck
Each speaker is provided with 3-10 questions from the DREAM days, following on from the content to formulate his presentation. One statement is formulated for each speaker. In the introduction, Kamp C makes the bridge between the substantive approach of the speaker and the top 3 questions. The speaker is given background information with this statement (some paragraphs) that explain the importance of the statement from CVPP.

Panel discussion: reflection and advice by panel experts, additions by the public
- Intro panel members (submit one statement, short response)
- Conversation: input from the three main questions that were also given for the workshop
- Concrete advice for these communities based on that expertise

Choice from 3 parallel work sessions
- “Citizens at the helm of the energy transition: handles and tools from REScoopV and RHEDCOOP”
  Kris Moonen, REScoop.Vlaanderen
  - How do we bring citizens to the helm of energy transition?
  - Which elements in the rhedcoop model offer (handles for) possibilities, tools and business models?
  - What do Rescoops mean for different types of communities (from starters to energy cooperatives)?
- “Technical possibilities and solutions for cooperation on a small (er) scale: the neighborhood, the municipality, the citizen cooperative, ...?”
  Wouter Cyx, Kelvinsolutions | Therm' Accent
  - Designing technical projects on a limited scale, such as the neighbourhood
  - Possibilities of the smart meter and storage
- “Getting started with your own community: players, roles and partnerships for the energy transition”
  Jef Van Eyck, Campina Energie | TranslabK | Vormingplus Kempen
  - Getting started with your own community
  - start (a project for) energy transition from its own local context

The participants will get started with the input: how do we apply this to our own case?
- List (possible) nodes to take the next step (= what do you really need to take it one step further)
- Reflection: tips, to do's and interesting suggestions for taking things one step further
- Reception and informal chat | Possibility to apply for DO days
The following posters were designed by Kamp C as communication tools and to gather interest in the trajectory.

### SAMEN STERK VOOR ENERGIETRANSITIE

<table>
<thead>
<tr>
<th>Datum</th>
<th>Actie</th>
<th>Inhoud</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 maart</td>
<td>DROOM</td>
<td>inspireren informeren welke wagen?</td>
</tr>
<tr>
<td>30 maart</td>
<td>DROOM</td>
<td>antwoorden op vragen inspirerende projecten de eerste stoppen naar jouw project expertise goede voorbeelden ondersteuning op maat</td>
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### DAGUITSTAP GENT

**zaterdag 25 mei 2019**

**WELKE ROL WIL JE SELF SPELEN IN DE ENERGIETRANSITIE?**

- **08u00** Onthaal koffie
- **08u30** Vertrek Westerlo @ Kamp C
- **09u15** Stoppplaats Berchem
- **10u15** Buurzame Stroom | een project van EnerGent Wijk Dampepoort & Sint-Amandsberg
- **12u00** Vertrek naar Oostakker | Cohousing Kerselaar Broodjeslunch met bewoners & Rondleiding
- **15u00** Vertrek
- **15u45** Stoppplaats Berchem
- **16u15** Stoppplaats Westerlo @ Kamp C

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KAMP C
Interreg NCP Belgium - West Flanders
Provincie Antwerpen

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Community-based Virtual Power Plant, NWE 588
The following tools were designed by Kamp C and were used during the Dream & Dare workshops to facilitate the engagement of the participants. The Bingo Card (by Trizone) was used as an icebreaker during the informal moments of the Dream Days, in order for participants to find like-minded individuals within the group. The rocket poster was used during the workshop of the Dream days to gather the participants’ questions.
Below, the two sides of the Dream Card. The filled-in Dream Cards were later displayed in Kamp C as inspiration for the 2nd Dream day and Dare days.
Below, the **Card of Potential**, which was used during the Dare Days to activate communities in drawing their roadmap. A reminder of the ‘dream’, the focus question for the community, as well as, what and who they need to help them on their way, is meant to gradually lead them to their first step ‘tomorrow’ towards a cVPP.
At the end of the 2nd Dare day, Kamp C announced the ‘Open Call’, explained the timeline and handed the Idea/competition forms to the interested communities. The wrap-up ended with a reception and a spontaneous pledge from a group of motivated participants to continue interacting, spreading and sharing their knowledge and expertise.
4.2.1. Insights and results obtained during the Dream & Dare stages

Throughout the Dream days, Kamp C was constantly evaluating the input received, always keeping the FIETS principles and the cVPP characteristics in mind. The dreams shared and the questions raised helped Kamp C and Trizone to formulate a suitable programme for the Dare Days.

A lot of questions were raised and a small selection follow below. These questions will later also be used in the design of the MoRe model, in order to, for example, identify barriers in the early stages of Replication.

*Questions raised by communities / community representatives during meetings*

- Is it allowed to sell energy yourself?
  - Or alternatively:
- It is not allowed to sell energy, how are we going to fix this?
- We cannot install solar panels on our roof, can we still participate in a cVPP?
- Does all the needed energy need to come from our own neighbourhood? We cannot generate enough electricity within the geographical boundary of our neighbourhood?
- What are the effects of the proposed lowering electricity prices in the Netherlands on a business case for cVPP?
- We are interested in technical aspects of the cVPP but what is the and business model?
- Tired of changeable policy: a project of renewable energy in a Municipality with 20% citizen participation is still no law.
- The community is looking for common solution for heating and energy, with the aim to be self-sufficient. They are in search of answers to their technical and policy-related problems. They are assisted by the city Mechelen, Klimaan, a start-up energy cooperative, the architectural firm DENC! and an energy coach.
- In the district de Beunt is a good example of community-building, originated by the project See2Do! The question is whether they are willing to take part in the subsequent process needed to create a cVPP.
- The municipality of Duffel would like to start their own VPP, by introducing renewable energy on the roofs of their municipal domains and schools, in collaboration with the energy cooperative ZuidtrAnt. The question here is whether a community can exist top-down.
- What is a cVPP? | what are the technical data needed for a cVPP?
- Business models and value propositions cVPP | What are the benefits?
- How can you involve people to your community?
- What does the law say (policy) and how can we use / adjust it?
- What process can Kamp C offer to start a cVPP?
- Can a cVPP be realized with the current policy?
- The policy does not allow us to sell electricity, so is cVPP only a dream?
- You are not allowed to sell energy as a third party, this can only be done by the energy supplier | selling it on distance is not possible. What next?
- Are citizens interested in such a project (cVPP)? Natural gas is still there and is cheap.
- Can cVPP be realized in the old urban centres within a municipality?
- Heat networks – is an area on a heating network no community and can you use this structure for a cVPP (electricity, not for heating, but only for lighting, appliances..)
• Is the current Flemish policy relevant? Samen kiezen voor zonnepanelen | Choose Together for solar panels
• Local authorities put more and more effort in anchoring local energy projects in their community. To involve the (local) population into the project, this will be the link between the local government and the citizen. At the same time the support for renewable energy can grow. We need an independent, up-to-date and centralised databank.
• There is technical know-how within our group, however we are looking to organise ourselves so that we can be prepared for the future, keeping a cVPP structure as an option and learning from the EnerGent example.
• What can a collaboration between Kamp C and the municipality of Mol-Balen offer to the transition group Mol | Balen?
• dream example: In Antwerp near Ecohouse there is a Church full of solar panels. Two citizens dream of being able to use the roof of their neighbourhood Church for renewable energy generation and benefit the district. Their own houses are renovated, but there is no budget left. There is a link with a neighbourhood project | City Lab "more place in the district". Can Kamp C take initiative and become the facilitator?
• …....

Communities emerging as forerunners

With the information gathered after the completion of the last Dare day, the following communities seem to be emerging as forerunners and will very likely submit a proposal to Kamp C’s ‘Open Call’.

- **Social Housing Corporation Zonnige Kempen (at least 1 project)**
  many RES steps already made | wants to become self-sufficient and involve the tenants
- **Co-housing Herentals**
  Optimising present and future investment to gradually become self-sufficient
- **Municipality of Nijlen**
  Dream-Dare-Do days led them to start project with Zonnewind energy cooperation
- **Municipality Lint (1 new development and 1 neighbourhood renovation)**
  Seeking to become 0 energy municipality
- **ZuidtrAnt energy cooperation**
  Looking for new ways to assist citizens energy communities and municipalities before they can become independent
- **Klimaan energy cooperation**
  vision & future of a starting energy cooperation
- **2 neighbours with excess production (Mol-Balen)**
  Seeking advice and cooperation with other citizens with support from the municipality
- **Apartment block (Ecoob)**
  Seeking best practises in order to become an energy cooperation
- **Provincial Technical School PTS (Boom)**
  Technical team & students want to optimise energy production and involve neighbourhood
- **Citizens’ initiative (Antwerp)**
  Engaged neighbours without capital want to start a citizens’ energy initiative
- **Neighbourhood renovation initiative (Kontich)**
  Rhedcooop project
• Social Housing Corporation Woonhaven (Antwerp)
  Renovation of big apartment blocks and incorporation of salt-batteries & warmth networks
• Municipalities of Westerlo | Sint-Katelijn Waver | Mol-Balen ....
  Seeking platform to reach and involve more citizens
• a cVPP in Kamp C
  Involving on-site and neighbouring companies in a cVPP (outside competition)

4.2.2. The learning curve of three representative examples of the participating communities

In this following section, Kamp C will present three examples of the diverse types of participating communities, their profile, dreams and cVPP intentions.

4.2.2.1. Cohousing Herentals

This cohousing group chose their project in Herentals, because of the easy accessibility by public transport (train). After all, Herentals is located on a railway junction, with trains to Antwerp, Brussels, Turnhout, Zuiderkempen and North Limburg. The Ekelstraat is located just north-west of the center of Herentals, less than fifteen minutes by bike from the station. In addition, the Herentals-Lier and Herentals-Balen bicycle railways (partly still in the design phase) are nearby.

Dream
• 25 properties, max. 4 storeys high | compact built, room left
• Max energy independent

Focus
Geothermal + PV panels in group, enough for own use and surplus for the neighborhood.

What are you going to do tomorrow?
Redefinition of the energetic model of cohousing:
• generate energy in combination with storage → totally independent, but deliver surpluses to the neighborhood. It seemed simple but is complex.
• limit energy consumption + limit network load if storage is needed, hope that the energy company (or government by extension) will arrange that
Questions?

1. Self-sufficient energy independent is this socially relevant?
2. What is the responsibility of a cohousing group for net balance?
   - Day differences - solve locally
   - Seasonal differences - national solution (75%)
3. How can you place and share PV panels?
   Is Wooncoop the answer?
   - Wooncoop is a housing cooperative that proposes a new way of living. The cooperative rents out homes, and all residents are shareholders of wooncoop and therefore co-owner of the cooperative. In this way, every residential buyer lives as it were renting from himself and the bond between tenant and owner changes.
4. Cohousing with one connection EAN nr. ?
   - Technical | can the citizen manage the new techniques themselves?
   - Have access to their own consumption data (EAN NR.)
     - Digital meters
     - Heat pump
     - Inverters
5. Saving energy is not a goal in itself. What steps can you take now.

What do we dream of?

Cohousing is a form of living that appeals to us:
- In addition to the privacy of our own living space, we share a number of common areas and the garden; as a group we manage the housing project ourselves, we also shape good neighbors together.
- Living together means there is a concrete involvement in each other, in which a warm neighborhood can develop, with respect for everyone's individuality.
- We want to connect with the wider environment. This can be done in smaller and larger concrete projects, depending on the capacity of the group, neighboring company, food team collection point, other cohousing projects ...
- For the fulfillment of our social objective, we have chosen to be found and we have provided a unit for people with disabilities.
- We are reducing our ecological footprint by living in a compact structure, being aware of mobility and building / renovating in an ecologically responsible way so that we can live in a healthy home.

We are not the only ones who come up with this idea, cohousing is clearly on the rise. Cohousing projects in Flanders are overall to improve time to shared.

We choose Herentals as location.
- A city center in a green environment. Important facilities (shops, schools, sports infrastructure, culture ...) are close by on walking or cycling distance, and the same goes for nature.
- A convenient location for public transport, with direct connections to Antwerp, Brussels and Hasselt, and also to Turnhout, North Limburg and the Zuiderkempen. Smooth public transport is very important to us.

Anyone who subscribes to this charter can participate. We would like a project with diversity:
- different ages, “from the cradle to the grave”.
- a mix of families, couples and single people;
- different philosophical beliefs;
- no restrictions based on skin color, religion, orientation or disability ...
We aim for:

- a group of **25 units**, which are built in phases.
- Compact and partly stacked building (in principle 4 storeys), so there is more free **outside space**.
- Outside we would like a play area for children (and adults), a vegetable garden, a conservatory, a quiet spot, enough greenery with shrubs, trees and flowers, **parking spaces for cars preferably on the outer edge**
- In addition to a large communal and multipurpose room where we can eat and meet together, we also provide a professionally equipped kitchen, storage room, bicycle storage, a washing and drying room, work space, 2 guest rooms with sanitary facilities and an indoor play area for the children.
- A design that offers privacy and creates opportunities for meeting, a design that provides light and air inside and outside our homes and gardens. A design also where in a common and harmonic basic style, there are still enough possibilities for every resident to give his own touch to it so that everyone can feel at home there.
- attention for ecological and healthy building, whereby we realize maximum what is possible within the budget. **Better than BEN standard, good thermal and acoustic insulation, use of rainwater, solar panels as a renewable energy source**. We also want to thoroughly investigate whether a heat pump with a later connection to geothermal energy is a sensible option.
- Cohousing fits in with the trend to share more, and wherever possible we want to do that too. For example, **car sharing is high on our agenda** (it is an intention, not an obligation), but there are many more options for using goods and services together.
- We choose not to allow pets within Cohousing Herental. Of course, assistance animals fall outside this rule.

We think it is important to shape and manage our cohousing through consultation. It is our intention to develop our communication skills and to learn better and better **to make decisions in consensus**, with attention for everyone’s opinion.

**Legal status and finances**

A unit should be affordable for an average income. Our prices are in line with the market, but offer much more for the same money.

Cohousing Herentals is currently, in the start-up phase, a de facto association. For the realization of our project we enter into a partnership with Wooncoop.

**What is Wooncoop | https://www.wooncoop.be/**

Wooncoop is a housing cooperative that proposes a new way of living. The cooperative rents out homes, and all residents are shareholders of wooncoop and therefore co-owner of the cooperative. In this way, every residential buyer lives as it were renting from himself and the bond between tenant and owner changes.

With Wooncoop you rent your own living space and share common space. If you want, you can live with us for life. We work socially, sustainably and cost-effectively. We manage and maintain your home with special care for quality and sustainable living.

Transparency and participation are paramount, as is a sustainable and social outlook on housing.
4.2.2.2. Social-Housing Cooperative | Zonnige Kempen

**General**

With this project Zonnige Kempen participated in the revaluation of the center of the Zoerle Parwijs district. Due to high traffic pressure from through traffic, decay and vacancy, the center was no longer livable for years.

When the municipality of Westerlo planned to tackle the traffic problem, Zonnige Kempen seized the opportunity to sit down together about the idea of an infringement-oriented housing project in the center.

With this project, a piece of village-center renewal came to the fore, with a great deal of attention being paid to new public space.

At the site of a few decayed buildings, a diversity of new homes was grouped in three blocks around a public square.

**Used techniques and materials**

- The project uses a thorough energy concept:
  - Limiting energy consumption (e.g. by insulating)
  - Addressing renewable energy sources (e.g. heat from soil, sun)
    - Make optimum use of available energy sources (e.g. high-efficiency gas-fired boiler)
    - Measuring and monitoring consumption
- Provide customized information to users
- Communicate results

All kinds of innovative techniques were applied: solar collectors, photovoltaic solar panels, closed ventilation system, heat pump, asphalt collector, etc. The aim was to optimize the synergies between these different technologies.

**Dream:**

How do you organize “sharing energy” in a social residential area / social house cooperative?

**Questions:** | Which player in the energy market can I go to?

1. **Is there a business model that tenants can participate in an energy cooperative and that can be indirectly deducted from the rent.**
   - That a part of the rent can be used indirectly to involve them in the energy cooperative?
2. How can tenants be part of the community based virtual power plant?

3. EMS Energy Management System and BMS Battery Management System | who is owner of the data? And Why?
   - Example EnerGent: Wise Grid, open source system for sharing the data
   - Smart meter port | customer has access to own usage data, PI and SI \(\rightarrow\) requested more information.
   - Siemens has an IT system.

4. There are already installations, can this become a part of the business model?
   - Photovoltaic panels (PV panels) will be responsible for part of the electricity production needed for the fans, the solar collector pump and the heat pump. The photovoltaic panel field is dimensioned to cover the annual consumption of the ventilation system. This dimensioning takes into account a consumption profile of the mechanical ventilation and the use of energy-efficient fans. (HRV)
   - A collective solar water heater is used for the production of hot tap water. These solar collectors are placed on the south-facing roof at an angle of +/- 45°. This ensures that the panel can absorb a maximum of solar heat. The surplus of solar energy from the solar collectors in the summer months is also stored in the ground storage via a heat exchanger.
   - In the winter periods when the solar collector does not produce enough to pre-heat the domestic hot water, the heat pump can be used to pre-heat the domestic hot water to 40 °C. The heat pump draws heat from the ground for low temperature heating. A condensing boiler does the post-heating. In principle, a heat pump is a reverse refrigerator. A freezer compartment of the refrigerator absorbs the cold of the environment and gives off heat (the evaporator is inside and the condenser outside); a heat pump does just the opposite. (The condenser is inside and the evaporator from which heat can be drawn is in the ground.) The heat is pumped to a building instead of outside.
   - A vertical ground heat exchanger consists of earth probes (a tube system) over a depth of 50 m, through which a mixture of water and an antifreeze product circulates. The energy extracted during the summer months is stored in a vertical ground heat exchanger at a low temperature, which is located under the newly created village square. In the winter the system works the other way around. In the winter months the heat is extracted (80% of the stored heat) from the ground storage to feed a heat pump, which in turn feeds a low temperature heating network. They have opted for underfloor heating and over-dimensioned radiators. The ground storage will consist of 54 drillings of 50 m deep, spread over an area of 12 by 18 m.
   - The principle of an asphalt collector is that you create a solar collector by installing a pipe system in the road surface. During the warm periods, these tubes capture solar heat, absorbing approximately 25% of the incident solar energy. Although the asphalt temperature can rise to 60 °C in the summer, the outgoing fluid temperature in the pipe system will therefore be significantly lower. This heat cannot be used effectively during the summer, so it is best kept. After all, low temperature heat can easily be used in the winter. In the cold winter months, the heat can, in part, be returned to the road surface through the same pipe system so that it remains snow and frost-free. The easiest way to store large amounts of heat for as long as is by putting it in the ground. After all, sand and clay formations in the subsoil hold the heat amazingly well for longer periods. That is why the absorbed heat is stored in an underground heat storage consisting of vertical heat exchangers. An average storage temperature of 20 °C is reached at the end of the summer. After the winter periods, the storage temperature has fallen to 8 °C.
   - A special feature of this project is that the asphalt collector is not intended to keep the road free of snow, but rather to provide heating for the social housing project. The sun causes the water in the water circuit in the roadway to heat up. The energy withdrawn from the asphalt collector during the summer months is stored in a vertical ground heat exchanger at a low temperature, which is located under the new square to be created. This heat remains stored there until the winter season comes. In the winter the system works the other way around. The majority of the heat, the remaining 80%, is taken from the ground storage to feed a heat pump. This in turn provides a low temperature heating network, consisting of a combination of floor heating and over-dimensioned radiators.
4.2.2.3. The Municipality of Nijlen

The Kempen 2020 Energy and Climate Action Plan of Nijlen is part of the Mayor Covenant and provides an overview of the actions that the municipality is planning in the coming years to achieve the 20% reduction in CO2 emissions by 2020. It is a dynamic plan that can change over the years due to changing circumstances or new opportunities.

**Situation (Zero measurement)**

To be able to formulate objectives for CO2 reduction and the effects of the climate policy, insight is needed into the size and sources of the current CO2 emissions on the territory of the municipality.

There is one for that municipal emission inventory. The emission inventory indicates for each sector its share in the total CO2 emissions. The reference year used is 2011. The inventory was performed using the generic tool that VITO was commissioned by the Department of Environment, Nature and Energy of the Flemish government, supplemented with municipality-specific data.

The emission inventory shows that in 2011 62,765 tons of CO2 were produced emitted.

The zero emissions are not taken into account in this baseline measurement motorways. The emissions from animal husbandry are also not included. The homes are responsible for 58% of municipal CO2 emissions. The tertiary sector (offices, businesses, catering, healthcare ...) and the others industry each account for around 8% of CO2 emissions. 21% due to road traffic. Of the total emissions is public transport responsible for 1%. The public lighting and the operation of the municipal services each represent a few percentages. If we compare the municipality with an average Kempenian municipality then the large share of households in CO2 emissions in Nijlen is striking. The explanation for this can be found in the smaller impact of other sectors the municipality, than the fact that households in Nijlen emit more CO2.

5.3 Hernieuwbare energie

| Nr | Acties | Initiator/ant. | Partner | Rol van de gemeente | Tijdens
|----|--------|---------------|---------|---------------------|--------|
| 37 | Aanloop van 100% groene stroom voor de gemeentelijke gebouwen; Duurzaamheids-ant. TD | Infra | Initiator | 2011-2020
| 38 | Uitvoeren van zonne-uitbouw voor de eigen gebouwen bij renovatie; | Infra | Infra | Oudzorg | 2011-2020
| 39 | Investering in zonnepanelen en zonnekoker op de eigen gebouwen (sb. school Karakterstroom, ontmoetingscentrum, generatoren, generatoren, kast); | TD | Initiator | 2014
| 40 | Onderzoek naar mogelijk gebruik van warmte van de geothermie in gemeentelijke gebouwen; | VITO | Initiator | 2015
| 41 | Onderzoek naar mogelijk investering in een WWO; Duurzaamheids-ant. TD | Initiator | 2015
| 42 | Onderzoek naar de mogelijkheid om al de gemeente te investeren in hernieuwbare energie; Duurzaamheids-ant. TD | Initiator | 2015
Dream:
Municipality Nijlen becomes self-sufficient in terms of energy. Creating support for energy transition through positive projects.

What are you going to do tomorrow?
We going to talk with the energy-cooperation Zonnewind

Questions? | Which player in the energy market can I go to?
1. What role can the municipality play. The municipality owns the network and pays Fluvius for its management.
   - What vision is needed here?
   - What can you enforce as a municipality

2. Municipalities have land (expansion zone) or Brownfields available
   - Why not use it for local energy extraction?
   - Win-Win for spatial planning
   - RUP?

3. Question from the local government | How do companies and citizens become involved?
   - How to map the needs (their needs)?

4. When we work together with a local energy-cooperation = we are working with our citizens.

5. A surplus of energy
   Example Westerlo: CHP (combined heat and power) *) for the swimming pool and sports hall, but there is a surplus. How do you solve this?

6. Which scale | large scaled projects (inspirator Boris Hocks)
Do large-scale projects not contradict all kinds of (citizen) initiatives of small-scale networks. However, they both prove important and often compatible, depending on the situation: scattered buildings benefit more from local networks, while larger centers need larger initiatives.

The fact that landowners can make landscape-making choices sounds a warning to some. Who do we let our energy transition shape? Who has the options, and who has the vision? It is already a part of the awareness to let everyone think along, and to show everyone what they can do. It is clear, however, that it is difficult to make individual buildings sustainable and efficient, since they miss out on the possible collectivity and compatibility gains. And on a large scale, a historical-social problem is emerging: just as the countryside had to provide food for the townspeople, it can now also become the wing for the energy of the city. The residents of the rural areas then get the infrastructure in their back yard. A reason to take a closer look at the dichotomy between city and countryside and to remain attentive to the distribution of the benefits and burdens.
4.2.3. DO-days

A very challenging but at the same time motivating few months for Kamp C just came to a close at the beginning of June 2019. More than 100 citizens representing a diverse range of initiatives and organisations participated in the Dream-Dare-Do days, offering the cVPP partnership valuable insights into the workings of a starting territory.

The next step in the trajectory was the Do-days. To give three communities a helping hand, Kamp C had launched an Open Call, offering them the chance to win a workshop and a starting amount of €2000. The participants of the Dream and Dare days, as well as other initiatives were asked to submit their own idea about what their community can do in the energy transition. The deadline for this Open Call was September 16, 2019. Throughout the summer, they had the chance to ask Kamp C questions and assistance. At the end of September 2019, the cVPP project partners assessed the submissions and chose 3 winning communities. A press event, reception and presentation by the winning initiatives took place on Thursday, November 14, 2019 during the 5th partnership meeting of the cVPP project.

4.3. COMPETITION

4.3.1. Competition | The 3 winning communities that have been selected

A press event, reception and presentation by the winning initiatives took place on Thursday, November 14, 2019 during the 5th partnership meeting of the cVPP project.

More information about the competition and the winners see: Report WPR del. 2.2 Competition within community to increase engagement & learning: selected communities provide their own proposal to implement (part of a) cVPP.
4.4. **COMMUNITY MEETINGS | WINNERS COMPETITION**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>22/10/2019</td>
<td>Community meeting with winning community Klimaan (Mechelen)</td>
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<tr>
<td>7/11/2019</td>
<td>Community meeting with winning community Zuidrant &amp; Stalinstraat Deurne (Antwerp)</td>
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### 4.4.1. B.M. Gummaar

- This is a co-housing group, a housing cooperation and it is a legal entity.
- They are already renovating
- They already work with many partners
- They are open to creating cVPP but are too small, they have a small size
- They have property and permits to perform drilling. It is unknown if they have done test drilling. The drilling would be for shallow geothermal technology up to 100 meters.
- They are still considered since they are willing to work with neighbours and the city as partners. They are also willing to use their existing connection with other housing cooperation's to create a cVPP. Currently, the law is not allowing this to happen.
4.4.2. Klimaan CV

- A new energy cooperation
- They have many bridge connections with schools, municipality, REScoop, etc.
- They are looking to increase sustainable energy in their surroundings
- They have a strong technical expertise
- They are considering becoming energy producers
- They want to advocate democratic energy
- Medium sized and want to become large
- They want to become facilitators, something like Energent - it remains unclear who their customers will be
- It is a concern that they may not understand what a cVPP is
4.4.3. Zuidtrant

- A more established cooperation than Klimaan, large size
- They want to inspire a community they have in their network to become a cVPP and then use this community as an example to inspire even more communities
- They have an engaged citizen in this community
- It does remain unclear who exactly the community is now (in terms of the project, since the community will likely also include the cooperation itself not only their target community).

4.5. COMMUNITY MEETINGS | INTERACTIVE SESSIONS

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<tr>
<td>30/01/2020</td>
<td>Community meeting with Interactive Session initiation 3 winning communities (Mechelen)</td>
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<tr>
<td>26/03/2020</td>
<td>Community meeting (Webinar)</td>
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<td>16/04/2020</td>
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<td>/ /2020</td>
<td>Community Meeting</td>
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National training seminars WP LT 3.5

<table>
<thead>
<tr>
<th>Date</th>
<th>Event details</th>
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<tbody>
<tr>
<td>/ /2020</td>
<td>Final National training with 3 communities as pilots and EnerGent (Gent)</td>
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Reports of the Community Meetings results see also:
- WP REP T3.2.5 | Reports community meetings
- WP MoRe model | Interactive sessions
- WPLT T3.4 | Three national training seminars incl. evaluation
5. **COMMUNITY MEETINGS CRES**

5.1. **COMMUNITY MEETINGS | PRELIMINARY STAGE |**

Low-carbon community-driven energy initiatives are emerging throughout Europe and these initiatives offer potential to considerably decarbonise the energy sector. However, integration of distributed power sources with local demand-side management and storage into local networks, poses additional socio-economic challenges. E.g. to be able to increase the generation by distributed sources and increase efficiency, these local initiatives need to expand, both in number of participants and in the ability to replicate successful initiatives in other communities. Identifying target groups with the resources, knowledge and capacity within their local community to progress these types initiatives is challenging.

In 2016 a programme was launched in Ireland specifically targeting Community groups who were interested in being involved in the energy transition. This programme has proved very successful in encouraging engagement from these target groups at a local level. The programme is administered through the Sustainable Energy Authority of Ireland (SEAI) and is called Sustainable Energy Communities (SEC).

The Sustainable Energy Community (SEC) network which is funded and co-ordinated at a national level by SEAI has grown to over 200 Communities around Ireland who are active in community energy initiatives in their local area. Some communities have been influencing local energy use for years, while others are thinking about it for the first time. The aim of the network is to encourage and support a national movement in every part of the country.

An SEC can include a range of different energy users in the community such as homeowners, sports clubs, community centres. Local businesses and churches. In this way, an SEC connects sustainable energy, local economic development and public wellbeing.


Templederry Renewable Energy Supply Ltd t/a Community Power is registered as an SEC and similarly the communities identified and approached to engage with the development of a cVPP in Ireland are also registered as SEC’s. The selection of these Community Groups for participation in the cVPP took into account their specific knowledge, their added value, level of influence and interest in the project.
5.1.1. Target groups

The Target groups in Ireland broadly fall into two categories and two stages in each category, the early adopters and the early majority following the thesis of diffusion of innovation.

The following are the different types of adopters:

- **Innovators** adopt something simply because it is new. They love exploring for the sake of exploring and are willing to take risks, even if those risks result in failure.
- **Early adopters** are often opinion leaders. They are similar to innovators in how quickly they adopt, but they are more concerned about the coolness factor and maintaining their reputations as being ahead of the curve on new ideas.
- **Early majority** and **late majority** are the critical mass that ensures adoption. The early majority looks for productivity and practical benefits more than coolness or reputation. The late majority is similar but also expects a lot of help and support before they are willing to commit.
- **Laggards**, as the term implies, are slow to adopt. They are the most resistant to change and do so only when forced to adopt because everyone else has.

The early adopter community groups are the project sub-partners, Aran Islands, Claremorris Energy Co-op, Energy Communities Tipperary Co-op and the Urban Co-op Limerick. These stakeholders were invited to specific information & discussion meetings covering the WP development results and output.
The follower groups will be existing Sustainable Energy Communities (SEC) established through the SEC network which is funded and co-ordinated at a national level by Sustainable Energy Authority of Ireland (SEAI). [https://www.seai.ie/sustainable-solutions/community-projects/community-network/](https://www.seai.ie/sustainable-solutions/community-projects/community-network/) These Sustainable Energy Communities will be approached and engaged towards the end of the project.

The basic aim of cVPP Project in Ireland is to have citizens engage in the cooperative Community Power and in addition, to empower other local energy cooperatives to realise their energy projects. Our communications strategy was developed to shorten the gap between the take up of early adopters and the early majority by emphasising the real value which comes from behavioural change and not just tool adoption.

5.2. COMMUNITY MEETINGS | TRAJECTORY |

A community based virtual power plant is a novel concept in Ireland. Community and citizen participation in energy generation and distribution is relatively new, and there are very low levels of knowledge among the general public about the opportunities to participate in renewable energy.

The partner energy co-operatives in this project are among the leading community energy organisations in Ireland and have been working over the past 5-8 years to build projects that support their own locally focussed objectives.

For this reason, it has been important to develop a the trajectory of Community meetings that recognises and continues to support the local groups, while at the same time promoting the new community based virtual power plant (cVPP).

5.2.1. Community Engagement Process

In order to secure active participation from participating Communities we designed and implemented a five Month Community Engagement Process where the specific aims and objectives of this process were identified.

Aims: The process seeks to answer this question: We have created a locally owned community energy supply company, CRES, and we want to find out how best to involve and include communities?

Empower interested/capable communities to create their own cVPP

Objectives of Engagement Process:

- Buy in from partners
- Clarity on each on their preferred level of involvement/scenario
- Mini-roadmap and timeline for each including training schedule for local partners

Format

- Phonecall/Email Briefing
- One to one meetings
- Group session 1 & Report
- Feedback
- Group session 2
- Final Proposal/Conclusion
5.2.1.1. Phonecall / Email Briefing | Update: January to March 2018

Circulate Briefing Document - Summarise the opportunity (Interreg Project)
Seek an initial meeting

Outcomes:
- Awareness of project objectives among partner communities
- Agreement to engage in one to one meeting
- Creating buy-in from partner communities to participate

5.2.1.2. One to one meetings | January to March 2018

Presentation summarising
- the opportunity
- the goals of Community Power
- Outline the struggle to get where you are to date.
- the objectives of the EU project and role of each sub partner
- Propose a schedule of engagement
- Share timeline and proposed dates

Outcomes:
- Awareness of project objectives among partner communities
- Buy-in from partner communities to participate
- Agreement to participate in Project and engage in initial Group Sessions
- Agreed point of contact/local coordinator

5.2.1.3. Group Session 1 | March 2018 (Identify location)

Communities to bring summary profile of their area.
Overall Project Recap on what is being proposed – how we got here? What are the potential benefits?
Who are the partners? What are we up against? Present a number of scenarios E.g. Community would generate what it is going to use

Determine what stage each participating community is at.

Key questions
- How could your community see its involvement?
- What is a realistic and achievable target for participating community?
- Gauge appetite for identifying customers for CRES in local communities
- What are the preferred scenarios?

Outcomes:
- Answer key questions.
- Capture ideas, concepts, pitfalls from partner communities.

Follow up: Report back summarising & proposing session 1,2,3, Invite Feedback

Prepare Interim Report for European Consortium Meeting in Ireland 11- 13 April 2018
5.2.1.4. **Group Session 2 | May/June 2018 (identify local)**

- Review progress & feedback received & presentation of the key scenarios for involvement
- Timeline of Community Power - How can your community become involved?
- Specifics developed for each of the preferred scenarios

5.2.1.5. **Summary of Final proposal/Conclusion | May/June 2018**

- Clear buy in from partners
- Clarity on each on their preferred level of involvement/scenario
- The end result of this process was the development of a Memorandum of Understanding (MOU) between all parties involved in cVPP.

The stated objective of this MOU is outlined below;

*The Parties initiated contacts between themselves with the intention of developing the concept of Community Power, a consumer owned non-profit energy supplier as part of the Interreg Project. Specific activities: Community Power will work on a transnational basis with the other partners to establish a plan for the realisation of a Community Virtual Power Plant (cVPP). The primary purpose of this project is to offer communities the opportunity to provide its energy needs with small-scale, distributed low-carbon technologies with participation from individual consumers, local energy companies and/or SMEs. It can empower prosumers and contribute to democratisation of energy markets.*

Following discussions and clarifications the MOU has now been agreed and signed by all participating communities.

The MoU establishes the relationships to facilitate the realisation of the value for each stakeholder. This is summarised in the below infographic.
5.3. **COMMUNITY MEETINGS | INTERACTIVE SESSIONS**

Based on the objectives set out in ‘Engagement Process’ we held regular Irish Sub-Partners Consortium Meetings to progress the cVPP concept and ensure buy-in from all participating communities.

Meetings were held on:
- 28th of June 2018 – Galway
- 14th of August 2018 – Galway
- 10th of September 2018 – Limerick
- 11th of October 2018 – Limerick
- 21st of November 2018 – Limerick

As part of the Community Engagement Process a ‘Draft Structure of a Community Owned Supply Company’ was presented to participating Communities at our Irish Sub-partners meeting in June 2018. This structure took into consideration the development and the investment to date made by Templederry Energy Resources to progress the licenced Supply Company to its current status. It also offered a roadmap as to how Templederry Energy Resources could divest its interest and transform the new proposed entity into a Community Owned Supply Company with engagement and ownership by participating communities.

The draft structure was discussed over a number of monthly Consortium meetings for comment and review. This process involved all participating members giving feedback of their views of the structure, listing of Pros/Cons and very briefly outing if they have a problem. A key aspect of the consultation was that if a potential problem was identified it needed to be accompanied by a suggested solution to the problem.

Part of the restructuring discussion also related to rebranding ourselves. It was agreed that we would use the name ‘Community Power’ for this purpose. We registered the trading name ‘Community Power’ and also secured the url for our website and future marketing and communications. [www.communitypower.ie](http://www.communitypower.ie)
As part of our consultation process with participating communities we discussed and identified core values which will form the basis of Community Power. The primary purpose of these core values is to guarantee that the method in which the company operates and does business remains in line with the values and ethos of the founding groups. Any new groups that would like to join would need to agree to these values.

These core values are included in our Memorandum of Understanding between all participating communities.

The five core values identified are:

- Local Benefit
- Democracy and Cooperation
- Clean Energy
- Fair Prices
- Resilience

5.3.1. Sub Partner- Community Activity

The success of prosumer engagement with Community Power is reflected by the active engagement of all our Sub Partner Communities. Each Community has ensured that representatives from their communities attend our monthly cVPP Sub Partner meetings.
Each community has been actively promoting Community Power within their communities and combining the concept of cVPP, prosumer engagement and the important role that citizens can play in the energy transition.

The Sub Partner Community engagement is reflected in one of the feedback loops through our Community Power website [www.communitypower.ie](http://www.communitypower.ie) where we ask the question ‘where did you hear about us?’

Fig 1.0 and Fig 2.0 outline the role all sub partner communities are playing in dissemination and prosumer recruitment.

**Figure 1.0 Website Analytics – Where did you hear from us?**
Prior to receiving our Large Supplier Licence in November 2019, Community Power purposely supplied electricity to a core base of 20 customers which covered a full range of customer types and we used this customer base to test, refine and implement all the relevant IT, administrative and reporting structures required to meet the electricity markets regulatory requirements. Now that we have achieved our Large Supplier status, since January 2020 we have been actively expanding our customer/prosumer base and we are continuing to build relationships with local communities throughout the island of Ireland. As a result of our prosumer engagement activities and the support of our cVPP Sub Partner Communities we have signed up an additional 190 customers since January 2020 and this is growing at an average of 10 additional customers per week. With further activities planned during 2020 we expect this number to continue to grow and as a result harness more interest in the opportunities that cVPP presents for local communities.
6. **TU/e AND DUNEWORKS**

TU/e and Duneworks have been participating in and being involved in designing the meetings.

After the community meetings, the interactive sessions are taking place. During these sessions, the communities will use basic building blocks of the Mobilisation & Replication (MoRe) model to further clarify the process and content of the ideas towards replication. As part of the preparation for the interactive sessions the MoRe model itself is also further developed to adapt it to the needs of different communities in varying national and local contexts. In other words, not only the MoRe model will be used to guide communities in their first steps towards cVPP, also the methods and approaches of the model itself are further developed.

After the MoRe model is tried out by different communities in varying local contexts, the Replication partners together with the Replication communities will evaluate both the model and the interactive sessions (Deliverable 3.3.1). Based on these evaluations and the experiences of the MoRe team, the MoRe model will be finalized (Deliverable 2.4.1).

Several important lessons have been learned during the community meetings that will inform the MoRe model and the interactive sessions:

- Due to the complexity of cVPP both the interactive sessions and MoRe model need to provide insights to communities in what a cVPP is and what it can offer for them and the energy transition.

- Communities foresee many barriers for a future cVPP, including the many legislative barriers in the incumbent energy system and the high financial costs. Therefore, the interactive sessions have to be able to mobilise communities to take the first steps in the development of cVPP despite the many uncertainties and challenges.

More detailed information on the interactive sessions and the MoRe model can be found in:

- Deliverable 2.3.1: Interactive Sessions
- Deliverable 2.3.2: MoRe fed with community specific factors acquired from WP Replication
- Deliverable 2.4.1 Tested MoRe model that allows to account for location specific factors
- Deliverable 3.3.1: Evaluation of the revised MoRe model
7. **CONCLUSION**

**Municipality Apeldoorn**

GA created the energy competition and its trajectory of workshops to find and build communities in the municipality. The concept was designed to use everything we had learned within the cVPP project so far, from definitions of an energy community, identifying communities’ values, the definitions of cVPP to applications of cVPP to the energy market. The competition made the knowledge understandable for the residents of Apeldoorn.

**Kamp C**

Kamp C’s decision to opt for an inspirational trajectory (3D days) turned out to be the right decision. The knowledge of the energy market and what a CVPP exactly meant and could mean for any given community in Belgium was clearly insufficient and needed this new approach to fill-in the gaps.

After the inspiring Dream-Dare and Do days providing the public with a lot of information from experts and tools, eight communities responded to the Open Call with very good proposals. The motivation of these communities gave us confirmation that there is a market for the concept of CVPP. The question then became whether the energy market itself is ready. Kamp C is currently engaged in the interactive sessions organised by the TU/e and DuneWorks and helping the communities on their way, step by step towards designing their own community based virtual power plant.

This project, however does not end with these 3 communities in the province of Antwerp. Kamp C also intents to engage the remaining communities and starting initiatives by involving them to the Long Term Effects stage of the cVPP project and assisting them in becoming replicating communities in the future.

**CRES/TEA**

The Irish communities were already identified prior to the community meetings. A lot of progress has been made concerning the involvement of the communities within CRES/CP, through phone calls, one to one meetings and group meetings. The final result is a Memorandum of Understanding.