TOOL Value - Goal - Activity

Translate the community values in a set of goals that a cVPP can help to realise.

This exercise helps participants to identify which activities to focus on and which activities are less relevant or interesting

The tool consists of three parts:
A. Identify what values are important to the community
B. Identify goals of the community energy initiative
C. Assess which activities support the realisation of these goals

This tool is used in step 2 of the backcasting process.

Before starting
The exercises in this tool provide a lot of information to both the process moderator and the participants, especially part B and C. When terms are not clear, the **crash courses** or **glossary** can help out.

Relevant crash courses for process moderators before starting this exercise are:
- What is a cVPP?
- History energy system
- Energy flexibility

A Identify what values are important to the community

A cVPP project provides benefits in line with values pointed out as important by the community. These values form the starting point of the cVPP project and 3 different types of values can be distinguished:

- ☐ Economic value:
  benefits that either flow back to individual members or that are reinvested in collective community goals.
  Underlying values: local economic regeneration through local value creation and retention.

- ☐ Environmental value and decarbonization of our energy system:
  ensure low-carbon or carbon-neutral local consumption by means of: optimising between local RE generation, storage, self-consumption and grid-supplied energy consumption (increase local demand when RE production is high; decrease local demand when RE production is low).
  Underlying values: decrease dependence on fossil fuels; support grid stability (to enable more RE sources to be connected to the grid)

- ☐ Social value related to the community: strengthening social resilience; enhancing social cohesion; improving collaboration, self-reliance and autonomy; e.g. maximizing local self-consumption of locally generated energy, using local individual or collective storage options.
  Underlying values: community well-being; control; achieving local CO2 neutrality; supporting local value creation

A Identify what values are important to the community

TASK: Identify community values through a discussion with participants and by filling in the following template.

☐ Economic value:

☐ Environmental value and decarbonization of our energy system:

☐ Social value related to the community:

A Identify what values are important to the community

An overview of values that the community has identified as important.
The cVPP is supposed to deliver (some of) these values.

B

Identify goals of the community energy initiative

Based on the values that have been pointed out by the participants as important, the participants select goals for the cVPP project from a pre-defined overview of goals.
This selection shows how participants envisage their future cVPP to provide value to the community and/or the energy system.

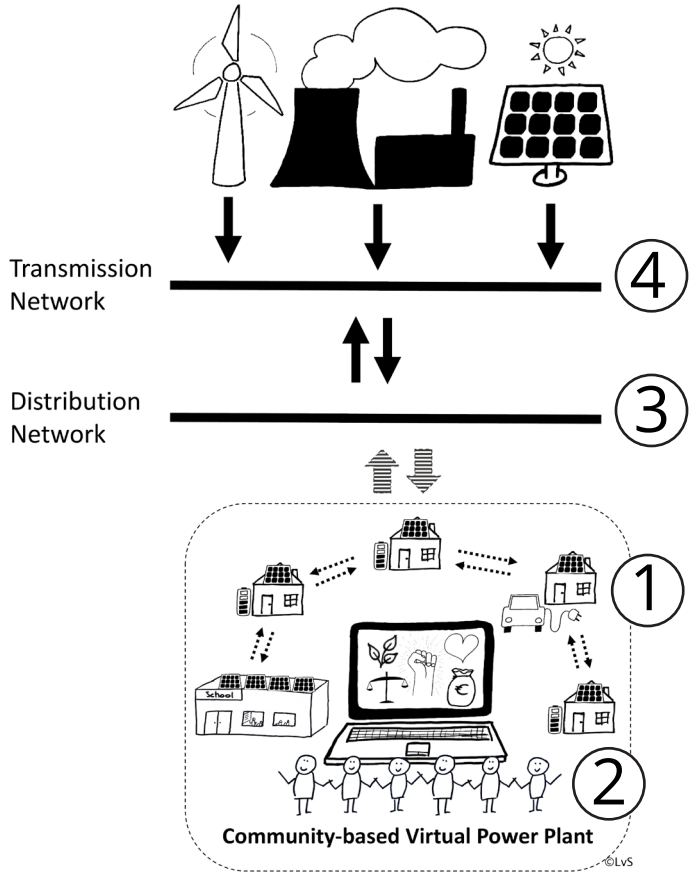
The tables on the next pages show:

- ☐ Goals that do not require a cVPP

And goals a cVPP can help realise at four levels:

1. Individual community members / households
2. The community
3. The distribution network
4. The transmission network

The participants read through the goal-tables and highlight goals they consider relevant.



01 What a community energy initiative has to offer to its community members (without a cVPP)

Goals and activities that do not require a cVPP
Goals
Reduce the energy bill of households
Reduce CO2 emissions of households
Reduce CO2 emissions of the community
Increase awareness and enable households and the community to participate in the energy transition
Provide revenues for the community by generating and selling RE
Enabling access to sustainable (shared) mobility

02 What a cVPP has to offer to a household

cVPP goals and activities that provide value/benefit on the household level
Goals
Maximise self-consumption of household RE to increase household level autonomy
Enable households to respond to dynamic prices to maximise household financial benefit
Enable households to maximise the use of RE (either locally or on national scale) and minimize the use of fossil energy (to achieve decarbonisation/CO2 reduction of the household energy mix)
Reduce the energy bill by minimizing the capacity tariff
Enable individual households to use electricity during power outages
Support the integration of RE on the distribution network to support household decarbonisation and/or for financial benefits
Support the integration of RE on the transmission network to support household decarbonisation and/or for financial benefits
Provide (additional) revenues for households by selling RE collectively

03 What a cVPP has to offer to the community

cVPP goals and activities that provide value/benefit on the community level
Goals
Maximise self-consumption of community RE to increase community level autonomy
Enable the community to maximise the use of RE and minimize the use of fossil energy (to achieve decarbonisation of the community energy mix)
Enable the community to use electricity during power outages
Support the integration of RE on the distribution network to support community decarbonisation and/or for financial benefits
Support the integration of RE on the transmission network to achieve decarbonisation and/or for financial benefits
Enable community members without access to RES to use community generated RE to support an inclusive energy transition
Provide (additional) revenues for the community by selling RE collectively

04 What a cVPP has to offer to the distribution network

cVPP goals and activities that provide value/benefit on the distribution network level
Goals
Support the integration of RE and appliances (e.g. electric vehicles and heat pumps) on the distribution network to support further decarbonisation
Reduce the need for the expansion of distribution network capacity for financial benefits
Support the integration of RE and appliances (e.g. electric vehicles and heat pumps) on the distribution network to support further decarbonisation
Reduce the need for the expansion of distribution network capacity for financial benefits

05 What a cVPP has to offer to the transmission network

cVPP goals and activities that provide value/benefit on the transmission network level
Goals
Support the integration of RE and appliances (e.g. electric vehicles and heat pumps) in the transmission network to support decarbonisation
Reduce the need for the expansion of transmission network capacity for financial benefits
Support integration of RE on energy markets to support further decarbonisation and/or for financial benefits

B Outcome | Goals

A selection of goals that link to the values that the community considers important. Through this exercise the participants gain more insight in:

- ☐ What a cVPP has to offer to their community and the energy transition
- ☐ What they want to achieve with their cVPP project
- ☐ How they envisage their future cVPP to provide value to individual households, the community, the distribution- and/or the transmission network

C Assess which activities support the realization of these goals

This exercise helps to identify which activities to focus on.
These activities inform the requirements for the future cVPP.

The pre-defined lists of possible activities enabled by a cVPP includes activities that are not yet allowed or feasible (due to e.g. regulation, immature technology). These are included to evoke discussion but also to encourage energy communities to dream about going beyond energy generation, saving and efficiency and to explore the possibilities for storage, increased self-consumption, peer-to-peer exchange and activities that support the stability of the electricity network and thereby enable more renewable energy generation to be connected to the electricity network.

In part B, goals were highlighted in the goals-tables.
Now it's time to place the **activities-tables** next to the **goals-tables** used in part B
(see example on the next page).

C Assess which activities support the realization of these goals

For example, the tables below show that through activities 2, 3 and 4 the cVPP can support achieving the selected goal: goal 2. From these three activities participants choose which ones they find most interesting, in this case activities 2 and 4.

cVPP goals and activities that provide value/benefit on the … level	
Goals	**Activities**
Goal 1	Activity 1
	Activity 2
	Activity 3
Goal 2	Activity 2
	Activity 3
	Activity 4

The following pages show the goals- and activities-tables combined.
These two tables can also be downloaded as two separate tables that can be placed next to each other (like the example above): **Goals tables & Activity tables.**

01 What a community energy initiative has to offer to its community members (without a cVPP)

Goals and activities that do not require a cVPP	Goals and activities that do not require a cVPP
Goals	**Activities**
Reduce the energy bill of households	01. Implement energy efficiency/conservation measures (e.g. insulation, energy efficient
	02. Install RE generation capacity at household and community level (e.g. solar panels)
	03. Install other energy technologies that enable storage and optimal RE use (e.g. heat pumps, electric boilers, electric vehicles)
	04. Collectively develop an energy generation project on a single location or site (e.g. solar farm, collective solar roof, wind project) and sell the generated energy to a third-party supplier.
Reduce CO2 emissions of households	01. Implement energy efficiency/conservation measures (e.g. insulation, energy efficient
	02. Install RE generation capacity at household and community level (e.g. solar panels)
	03. Install other energy technologies that enable storage and optimal RE use (e.g. heat pumps, electric boilers, electric vehicles)
Reduce CO2 emissions of the community	04. Collectively develop an energy generation project on a single location or site (e.g. solar farm, collective solar roof, wind project) and sell the generated energy to a third-party supplier.
	05. Implementing (collective/shared) electric vehicles (cars; (freight)e-bikes; buses,) and (bi-directional) charging poles and stations
Increase awareness and enable households and the community to participate in the energy transition	01. Implement energy efficiency/conservation measures (e.g. insulation, energy efficient appliances)
	02. Install RE generation capacity at household and community level (e.g. solar panels)
	03. Install other energy technologies that enable storage and optimal RE use (e.g. heat pumps, electric boilers, electric vehicles)
	04. Collectively develop an energy generation project on a single location or site (e.g. solar farm, collective solar roof, wind project) and sell the generated energy to a third-party supplier.
	06. Implementing energy monitoring at household and community level
Provide revenues for the community by generating and selling RE	04. Collectively develop an energy generation project on a single location or site (e.g. solar farm, collective solar roof, wind project) and sell the generated energy to a third-party supplier.
Enabling access to sustainable (shared) mobility	05. Implementing (collective/shared) electric vehicles (cars; (freight)e-bikes; buses,) and (bi-directional) charging poles and stations

02 What a cVPP has to offer to a household

cVPP goals and activities that provide value/benefit on the household level	
Goals	**Activities**
Maximise self-consumption of household RE to increase household level autonomy	07. Use flexibility provided by storage and household appliances to maximise consumption of self-generated RE at household level
Enable households to respond to dynamic prices to maximise household financial benefit	08. Use flexibility provided by storage and household appliances to change household energy demand and/or supply in response to dynamic prices (e.g. lowering energy demand when prices are high)
Enable households to maximise the use of RE (either locally or on national scale) and minimize the use of fossil energy (to achieve decarbonisation/CO2 reduction of the household energy mix)	09. Use household-level flexibility provided by storage and household appliances to balance household energy demand and supply in line with physical availability of RE on the transmission network
Reduce the energy bill by minimizing the capacity tariff	10. Use flexibility provided by storage and household appliances to minimise the peak power usage (and peak of energy fed back to the distribution network) within households to lower the capacity tariff of households (tariff depending on size of connection with the network)
Enable individual households to use electricity during power outages	11. Use household-level flexibility provided by storage and household appliances to balance household energy demand and supply during emergencies
Support the integration of RE on the distribution network to support household decarbonisation and/or for financial benefits	15. Actively collecting, aggregating and selling flexibility from RE, controllable appliances and storage (bundling this with flex from other communities, as an aggregator) (at distribution level)
	16. Actively collecting flexibility from RE, controllable appliances and storage and sell this through a third-party aggregator (at distribution level)
Support the integration of RE on the transmission network to support household decarbonisation and/or for financial benefits	17. Actively collecting, aggregating and selling flexibility from RE, controllable appliances and storage (bundling this with flex from other communities, as an aggregator) (at transmission level)
	18. Actively collecting flexibility from RE, controllable appliances and storage and sell this through a third-party aggregator (at transmission level)
Provide (additional) revenues for households by selling RE collectively	21. Collectively selling RE generated by community members to a third party supplier

03 What a cVPP has to offer to the community

cVPP goals and activities that provide value/benefit on the community level	
Goals	**Activities**
Maximise self-consumption of community RE to increase community level autonomy	12. Use flexibility provided by storage and household appliances to balance demand and supply at the community level
	19. Buying energy from the community and selling it back to community members and/or selling it on the energy market (as a licenced energy supplier)
	20. Enable peer-to-peer energy trading between community members
Enable the community to maximise the use of RE and minimize the use of fossil energy (to achieve decarbonisation of the community energy mix)	13. Use community-level flexibility provided by storage and household appliances to balance demand and supply in line with physical availability of RE on the transmission network
Enable the community to use electricity during power outages	14. Supply power to the community during emergencies by operating a microgrid that can be disconnected from the distribution / transmission network
Support the integration of RE on the distribution network to support community decarbonisation and/or for financial benefits	15. Actively collecting, aggregating and selling flexibility from RE, controllable appliances and storage (bundling this with flex from other communities, as an aggregator) (at distribution level)
	16. Actively collecting flexibility from RE, controllable appliances and storage and sell this through a third-party aggregator (at distribution level)
Support the integration of RE on the transmission network to achieve decarbonisation and/or for financial benefits	17. Actively collecting, aggregating and selling flexibility from RE, controllable appliances and storage (bundling this with flex from other communities, as an aggregator) (at transmission level)
	18. Actively collecting flexibility from RE, controllable appliances and storage and sell this through a third-party aggregator (at transmission level)
Enable community members without access to RES to use community generated RE to support an inclusive energy transition	19. Buying energy from the community and selling it back to community members and/or selling it on the energy market (as a licenced energy supplier)
	20. Enable peer-to-peer energy trading between community members
Provide (additional) revenues for the community by selling RE collectively	21. Collectively selling RE generated by community members to a third party supplier

04 What a cVPP has to offer to the distribution network

cVPP goals and activities that provide value/benefit on the distribution network level	
Goals	**Activities**
Support the integration of RE and appliances (e.g. electric vehicles and heat pumps) on the distribution network to support further decarbonisation	10. Use flexibility provided by storage and household appliances to minimise the peak power usage (and peak of energy fed back to the distribution network) within households to lower the capacity tariff of households (tariff depending on size of connection with the network)
Reduce the need for the expansion of distribution network capacity for financial benefits	10. Use flexibility provided by storage and household appliances to minimise the peak power usage (and peak of energy fed back to the distribution network) within households to lower the capacity tariff of households (tariff depending on size of connection with the network)
Support the integration of RE and appliances (e.g. electric vehicles and heat pumps) on the distribution network to support further decarbonisation	15. Actively collecting, aggregating and selling flexibility from RE, controllable appliances and storage (bundling this with flex from other communities, as an aggregator) (at distribution level)
	16. Actively collecting flexibility from RE, controllable appliances and storage and sell this through a third-party aggregator (at distribution level)
Reduce the need for the expansion of distribution network capacity for financial benefits	15. Actively collecting, aggregating and selling flexibility from RE, controllable appliances and storage (bundling this with flex from other communities, as an aggregator) (at distribution level)
	16. Actively collecting flexibility from RE, controllable appliances and storage and sell this through a third-party aggregator (at distribution level)

05 What a cVPP has to offer to the transmission network

cVPP goals and activities that provide value/benefit on the transmission network level	
Goals	**Activities**
Support the integration of RE and appliances (e.g. electric vehicles and heat pumps) in the transmission network to support decarbonisation	08. Use flexibility provided by storage and household appliances to change household energy demand and/or supply in response to dynamic prices (e.g. lowering energy demand when prices are high)
	17. Actively collecting, aggregating and selling flexibility from RE, controllable appliances and storage (bundling this with flex from other communities, as an aggregator) (at transmission level)
	18. Actively collecting flexibility from RE, controllable appliances and storage and sell this through a third-party aggregator (at transmission level)
Reduce the need for the expansion of transmission network capacity for financial benefits	08. Use flexibility provided by storage and household appliances to change household energy demand and/or supply in response to dynamic prices (e.g. lowering energy demand when prices are high)
	17. Actively collecting, aggregating and selling flexibility from RE, controllable appliances and storage (bundling this with flex from other communities, as an aggregator) (at transmission level)
	18. Actively collecting flexibility from RE, controllable appliances and storage and sell this through a third-party aggregator (at transmission level)
Support integration of RE on energy markets to support further decarbonisation and/or for financial benefits	19. Buying energy from the community and selling it back to community members and/or selling it on the energy market (as a licenced energy supplier)
	21. Collectively selling RE generated by community members to a third party supplier

C Outcome | Activities

- ☐ Participants better understand the variety of activities enabled by a cVPP.
- ☐ Participants have a list of activities through which the cVPP is to provide value to individual households, the community, the distribution- and/or the transmission network.
- ☐ Participants have more clarity on what a cVPP has to offer for to their community, which provides a starting point for developing more concrete ideas about your cVPP project.
- ☐ Participants have more clarity on the cVPP activities that are not (yet) interesting for their community.

Once it is clearer what the cVPP is supposed to do, participants can have a more informed discussion on the requirements and steps towards their envisaged future cVPP configuration.