Energy Management Plaftorm - Manual

AUTHORS : XAVIER DE MOOR, CONDUGO

DATE: 14-2-2022

Guidance document for the energy management platform

The following manual explains how to login and how to use the energy management platform. It also explains the 2 dashboards related to exchanging energy among different users. The first one is used to scout a possible collaboration between partners who have on the one side an excess of energy while others have a need/shortage. The second dashboard – by representing a cluster sharing Sankey – can be used to follow-up on the exchanges in real-time.

Login (2 steps)

STEP 1:

Go to https://r-aces.eu/tools/energy-management-platform/ and scroll down to the bottom of the page and fill in the following data:

Request your Demo account

Are you interested in discovering how our Energy platform works and how it can help you in your energy management challenges?

Provide us the information below and we will setup a personal demo account for you. Please check your e-mail afterwards for further instructions. In case you do not receive an e-mail in your inbox, please also check your SPAM folder, as they might be delivered there.

P.s: your account will be active for 15 days. If you need more time or if you have other request, don't hesitate to contact us on info@condugo.com.

First name

Last name

Email

☐ I'm not a robot

reCAPTCHA
Privacy - Terms

REQUEST DEMO ACCOUNT

*Once you have filled in your name/email, you can request your demo account.*

STEP 2:

With the obtained login details, you can now enter in the platform website and have access to the following 2 dashboards:

Dashboard 1: Energy sharing potential

The energy sharing potential dashboard is used to scout for possible collaborations between partners. By capturing and overlapping the excess and demand of a certain energy type, the instantaneous synergy can be discovered.

After logging in, you click on Cluster management/Sharing and you obtain the following window:
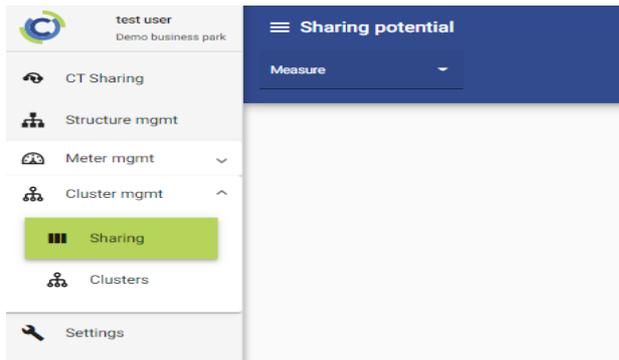
Click on Measure and determine in which unit you want to analyse your sharing potential:
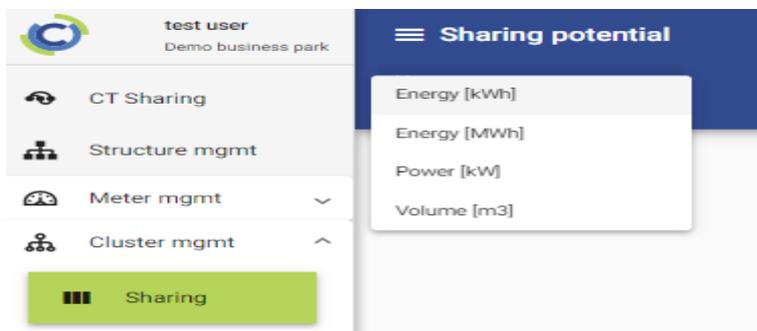
Choose now the period, date and whether you want to see you data in hourly or quarterly hourly measures.

In addition, you need to define the energy flows between each and every participant by selecting the following:

- Under the excess tab, you will find all the meters who are associated with the production/excess of energy. In our example we selected the 'Demo Pharma excess' meter

- Under the Demand tab, you will find all the meters who are associated with the demand/need of energy. In our example we selected the 'Demo Food demand' meter

Now you obtain an overview of 4 heatmaps which explain your energy sharing potential.
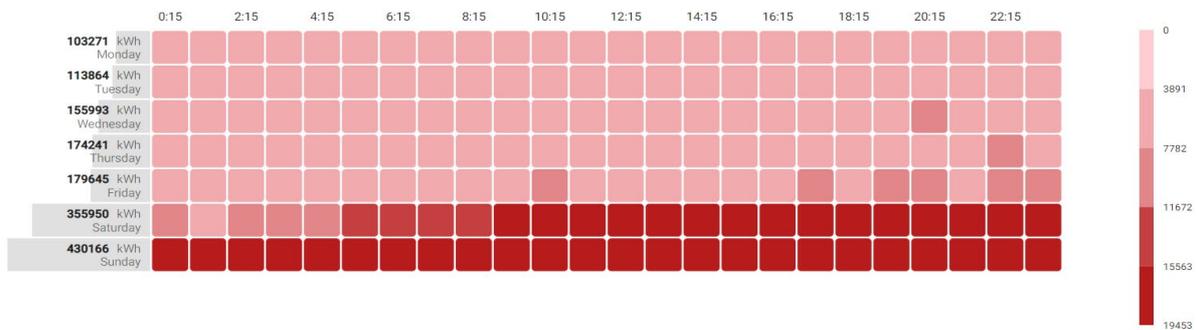
Each heat map serves its own purpose.

The first graph shows the Sum of the excess meters. *In other words, all energy excess is summed to give the total energy available for exchange.*


The second graph shows the Sum of demand meters. *This is actually a representation of the use of an energy type. The use case here is to exchange energy to reduce the production of local energy types. For example, steam is used within a process, and a neighbouring company has a steam excess. Instead of producing steam locally in boilers, the excess steam of neighbours can be used.*

Sum of the demand meters
Total usage demand for W53 2021 is 1986800.5 kWh
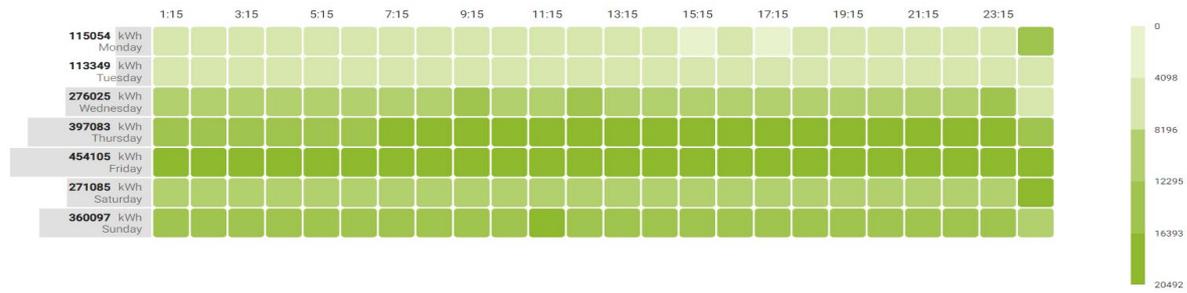
The third graph Energy overlap between excess and demand *brings together the pieces of information and determines whether there is a match between both. Ideally, all the energy demand can be covered by an energy excess, leading to an overlap (excess minus demand) equal to zero.*

The subtitle gives an indication of the relative usage, i.e. how much of the total excess can be used to cover how much of the demand instantaneously.

Energy overlap between excess and demand
Total usage overlap for W53 2021 is 1347412.74 kWh (89.05% of excess, 67.82% of demand)
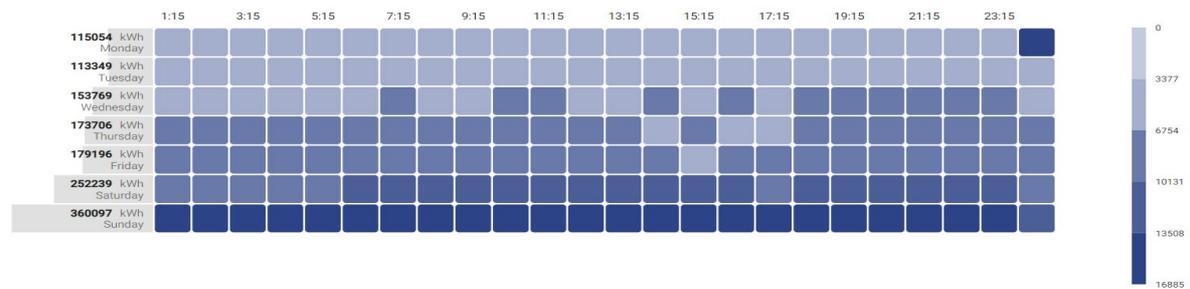
The last graph Energy difference between excess and demand *builds further on the third graph. In essence, this indicates how much energy is left over for further exchange (blue) or the shortage of energy to cover the full demand (red). This gives an indication of the further potential of heat exchange, or the limitations experienced by working with the current partners.*

Energy difference between excess and demand
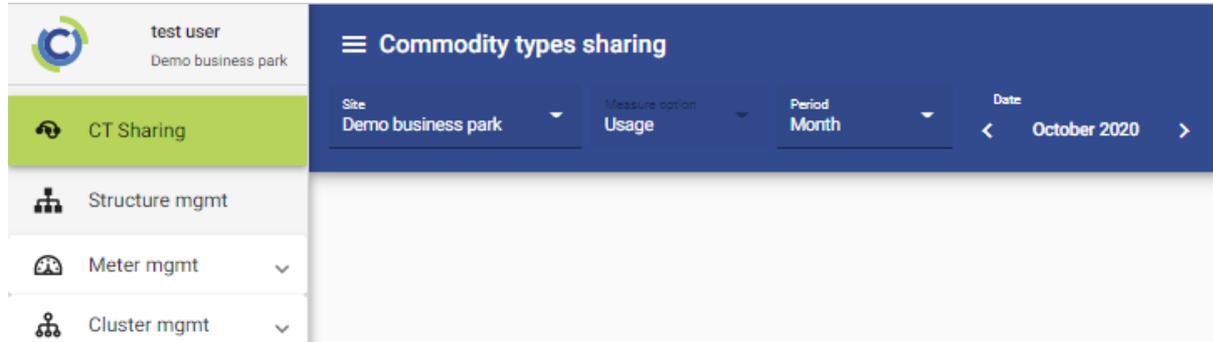Usage differences for W53 2021
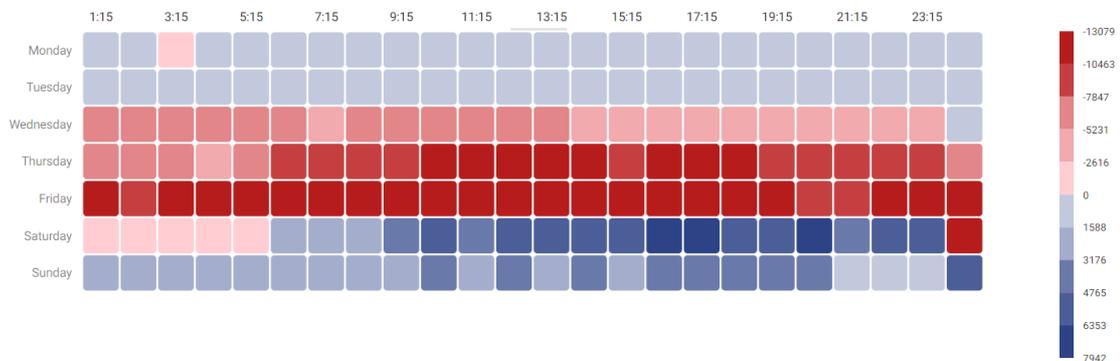
Dashboard 2: Cluster sharing

Once an energy collaboration is in place, the cluster sharing sankey can be used to follow up on the exchanges in real-time.

After logging in, you click on CT Sharing and you obtain the following window and select the period:

The graph should be read as follows: the top flows represent an energy flow from the company on the left to a company on the right. Vice versa, the bottom flows represent an energy flow from a company on the right to a company on the left.
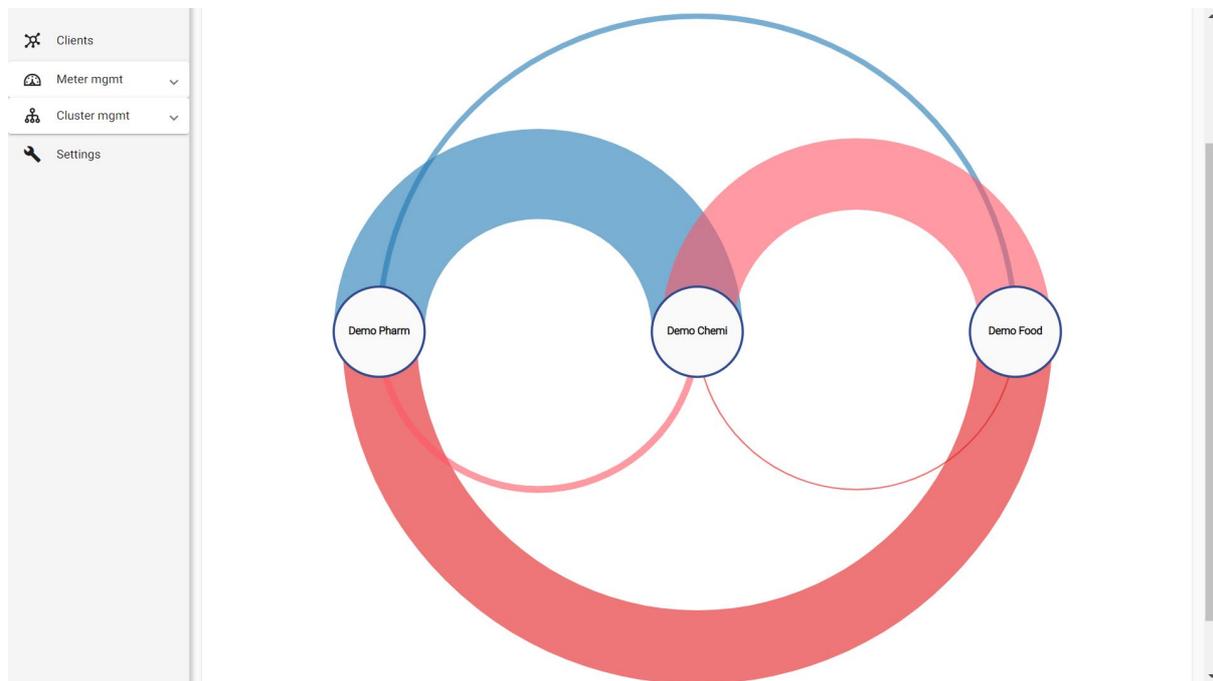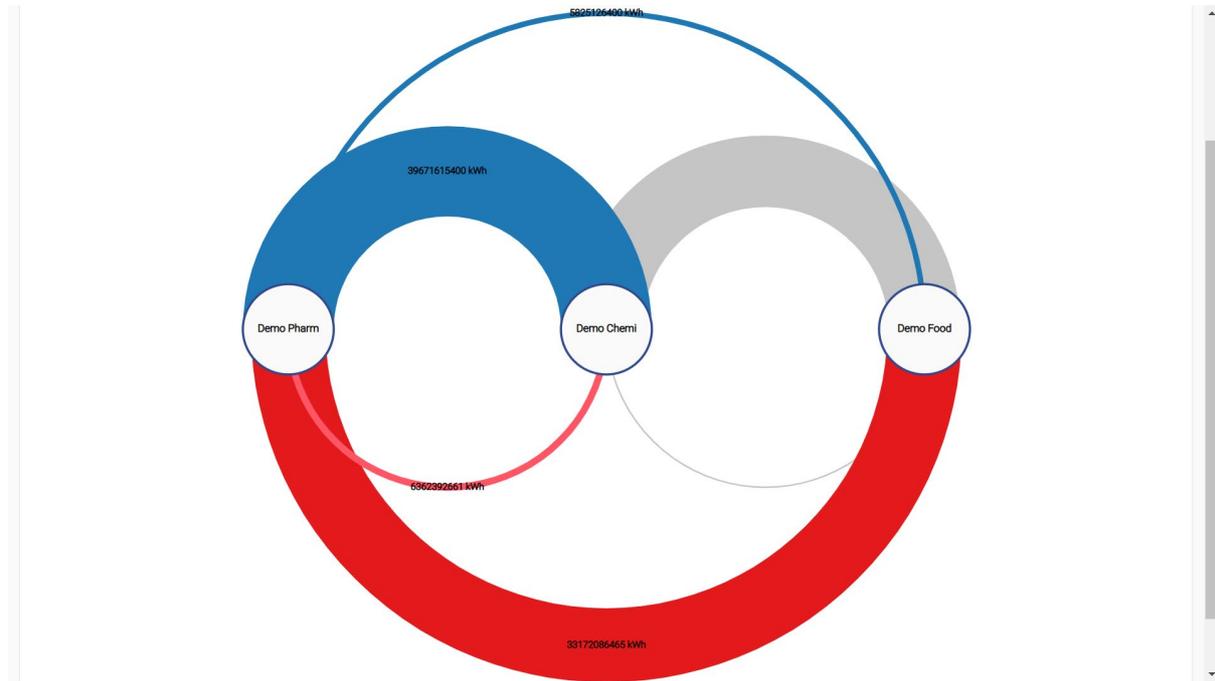

One of the unique strengths of this visualization is inherent to a Sankey diagram, namely that the width (thickness) of the energy flow represents the relative amount of energy

exchanged. A thin flow indicates that little energy is exchanged, while a thick flow indicates that a lot of energy is exchanged.

Incorporate your own data

If you want incorporate your own data, please send an email to info@condugo.com with your request and we will send you a pre-specified excelsheet in order to fill in your data. Once we have received your data, we will provide you with a unique login in order to see the outcome of your data on the dashboard.