MAXEM®

BRIEF

Maxem is a product that's focussed on sustainable car charging and It's a smart home energy management system where you can analyse and control you energy of your home and charge point via a device.

By focusing on solar energy they want the user to avoid the grid energy. Maxem is installed in the electric panel of your home and it controls and measures your energy usage.

The USP of Maxem is the smart-charging system. With this function you can switch the charging speed easy. If your house doesn't use energy the charging speed of your EV charging point will increase. With this system you can manage your method of charging without getting an overload.

The mission of this assignment is to design an app that persuades the user to minimize their use of fossil fuel and energy from the grid.

CONCEPT

This concept simply gives you insight in your energy usage and gives you the option to manage it.

Based on the forecast the app can recognize how much sunlight there will be and how much solar energy there will be generated that day. The generated energy will be distributed to your house and charging point and the left overs to the Powerwall. The data produced by the app will be shown to the user on a daily basis.

You can manage the way of using your sustainable energy. The function of Maxex "Dynamic Load Balancer" plays a big role within the app. If the user wants to charge his car with the generated solar energy, he just have to switch the focus of the DLB to his car. That means his house will be provided with energy from the grid.

The hexagon is an important tool in the app. With this visual you'll see at a glance the situation of your current energy usage and the type of energy you probable need to use in order to be provided throughout the day.

DESIGN PROBLEM

The user wants to live sustainable and see how much energy they're using, but don't have a clear overview about their Home Energy Management System in combination with their car charging system.

UX METHODS & SOLUTIONS

USER REQUIREMENTS

User requirements provide information about what the target group wants. The needs are based on the user research. This process you take before thinking about solutions for the given problem.

User

- Getting insight in their daily energy usage.
- Compare their current energy usage with their past usage.
- Get alerts when the car is fully charged.
- See how much kw an appliances has used.
- Control their energy usage from anywhere.
- See how much energy they've got stored.
- See how much energy their solar panel is receiving.

Technical

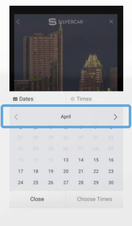
- Enable to change the energy supply via different devices.
- The user wants to control their energy supply of the charging spot and home.

Data

- The user wants to see the amout of kW of his energy usage on daily/weekly/monthly and year base.
- The user wants to get insight about how much money they need to pay based on the last day/month/week/year.

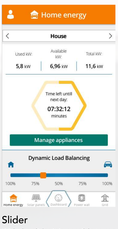
UI PATTERNS

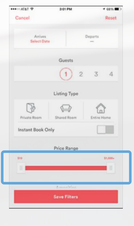
By using patterns you make sure that your user easily navigates trough your interface, because they are already familiar with the design and the way how it works.



Carousel

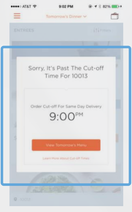
With a carousel i have made it possible to show lots of information inside a small area. It also devides the UI and in general it's giving you a clear distinction between different topics.





Slider

With the slider it is possible to regulate the solar energy supply with a simple swipe movement.

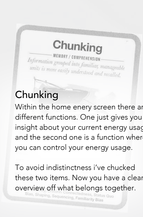


Pop-up

I've used this pattern to put the focus on the input field.

SEDUCTIVE PRINCIPLES

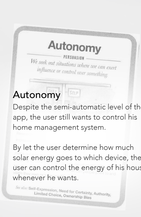
With Seductive Principles we design applications that can elicit an emotional connection in our users. How can we design applications that entice or seduce our users from the very first sight and into a long lasting relationship.



Chunking

Within the home enery screen there are 2 different functions. One just gives you insight about your current energy usage and the second one is a function where you can control your energy usage.

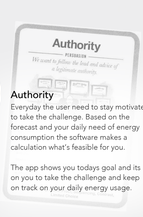
To avoid indistinctness i've chucked these two items. Now you have a clear overview off what belongs together.



Autonomy

Despite the semi-automatic level of the app, the user still wants to control his home management system.

By let the user determine how much solar energy goes to which device, the user can control the energy of his house whenever he wants.



Authority

Everyday the user need to stay motivated to take the challenge. Based on the forecast and your daily need of energy consumption the software makes a calculation what's feasible for you.

The app shows you todays goal and its on you to take the challenge and keep on track on your daily energy usage.

BENCHMARK ANALYSIS

Are you distinctive enough? What are the advantages of your company/brand? Through a simple benchmark analyse you can find out these questions.

	Available on small screens	Costs (1-5)	Supports car charging	Supports Solar Charging	Realtime insight in energy usage	Compare with other housholds
Maxem	✔	5	✔	✔	✔	✗
Toon	✔	2	✗	✔	✗	✔
Lichtblick	✔	?	✔	✗	✔	✗
BeNext i-net getaway	✔	3	✗	✔	✗	✗
I-CARE Premium	✔	4	✗	✔	✔	✔

EVALUATION

WHAT MAKES MY WORK UNIQUE?

Through a real-time data overview I make the user aware of his electricity consumption. From a playful way (in this case by defining a goal) I have tried to motivate the user by first making use of sustainable energy and afterwards of the grid.

I also looked at the competitors and added features that make Maxem stand out from all other companies (in this case, supporting car and solar charging and by giving the user control over the supply of the solar energy).

PROTOTYPE:

- Maxem turtorial:
  https://www.youtube.com/watch?v=LIXoWYgNHxc