



c|side

ENERGY STORAGE

CSide, Intelligent
Solutions

Energy storage is a favorite technology since it finally bridges the need for a reliable grid and the intermittent production from renewable sources. There is great potential for storage to relieve congestion and smooth variations in power, so it is of the greatest importance for utilities everywhere.

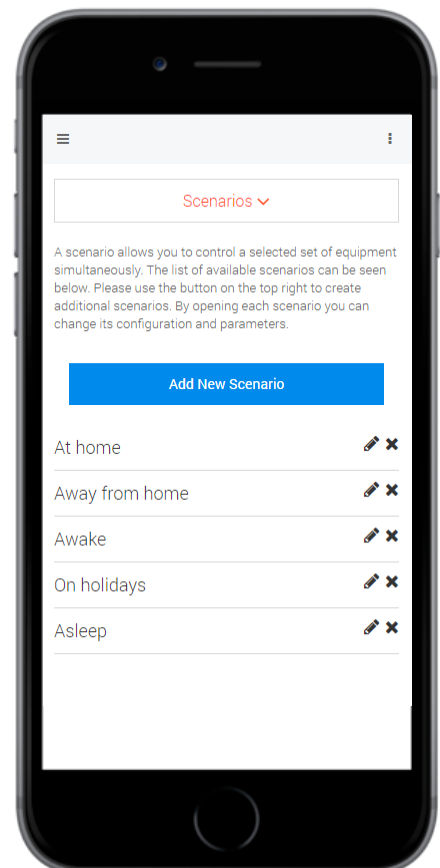
The Energy Storage Application is a solution designed for service providers to engage their customers that own some sort of smart energy storage, and in this way reduce churn. Consumers now expect intuitive management tools for their smart devices, including storage, which makes this application the right software to meet those expectations.

This application has several useful features such as the remotely controlling the battery charging status and setting a charging schedule (time and day of the week).

FEATURE LIST

The following list of features can be found in the Energy Storage Application:

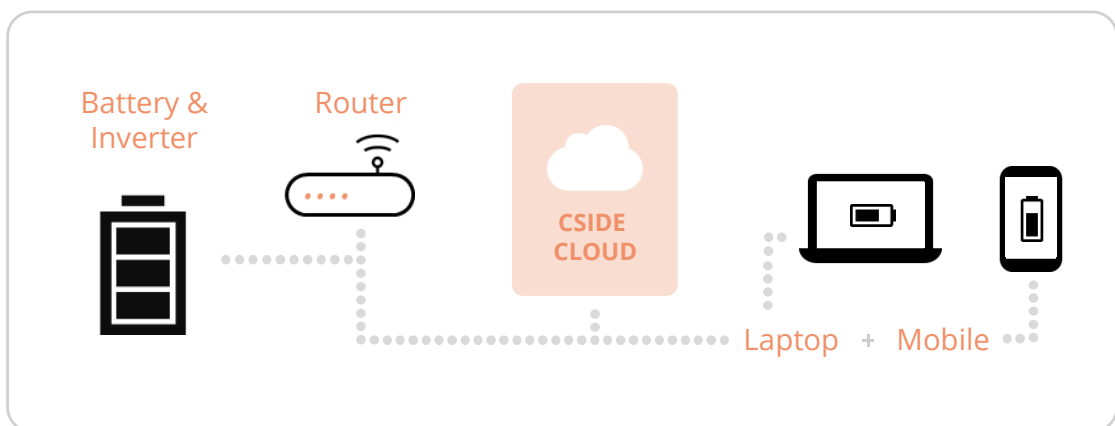
- ✓ Remotely set the status of the battery to charging or stop charging and start or stop discharging;
- ✓ Charts showing the charging cycles of the battery and how much of the energy used at the premises is coming from the grid or the battery;
- ✓ Chart showing the current battery capacity as it drops after a number of charging cycles;
- ✓ Charging schedule so that the battery is automatically charged at a particular time and day;
- ✓ Several charts depicting the charging and discharging cycles, as well as the proportion of electricity used from the battery against the proportion bought from the grid;



- ✓ Chart showing the accumulated income so that customers are aware of when the initial investment is paid off;
- ✓ Survey to understand the customer's energy profile – size of the house/office, number of batteries installed as well as type and age.

HOW DOES IT WORK?

The Energy Storage Application allows consumers to monitor and interact with their battery's charging. The charging aspect is controlled by an inverter or metering device that communicates with the CSide cloud. Consumers can access the dedicated portal from their internet-connected devices.



TECHNICAL DETAILS

DEVICES

The inverter or metering device of the battery should have Wi-Fi to communicate with CSide's cloud services.

CONNECTIVITY

The connection should be done through Wi-Fi.

BATTERY LIFE

The general range for a solar battery's useful lifespan is between 5 and 15 years.

SERVICE DELIVERY PLATFORM

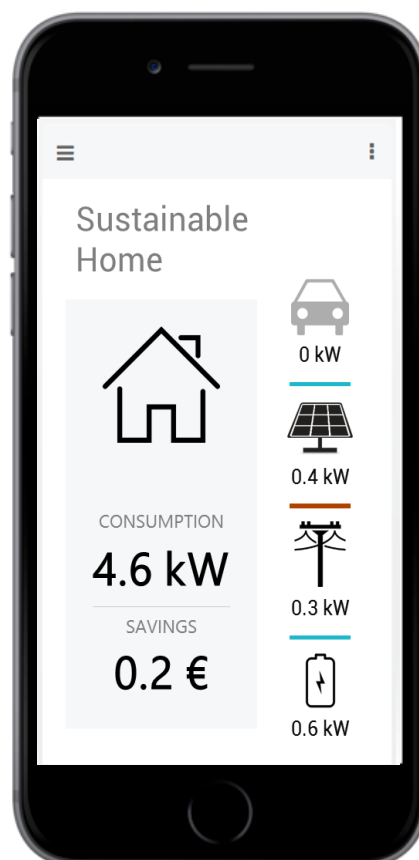
The Energy Production Application is built into the Service Delivery Platform (SDP) as one of its many vertical solutions. The various applications within SDP work in parallel and each service can be activated or deactivated according to the needs of each customer.

SDP provides value-added services from managing energy consumption and production to advanced automation, cloud-based video surveillance and even heating management. Back office maintenance and operation tools ensure a great experience while managing thousands of customers.

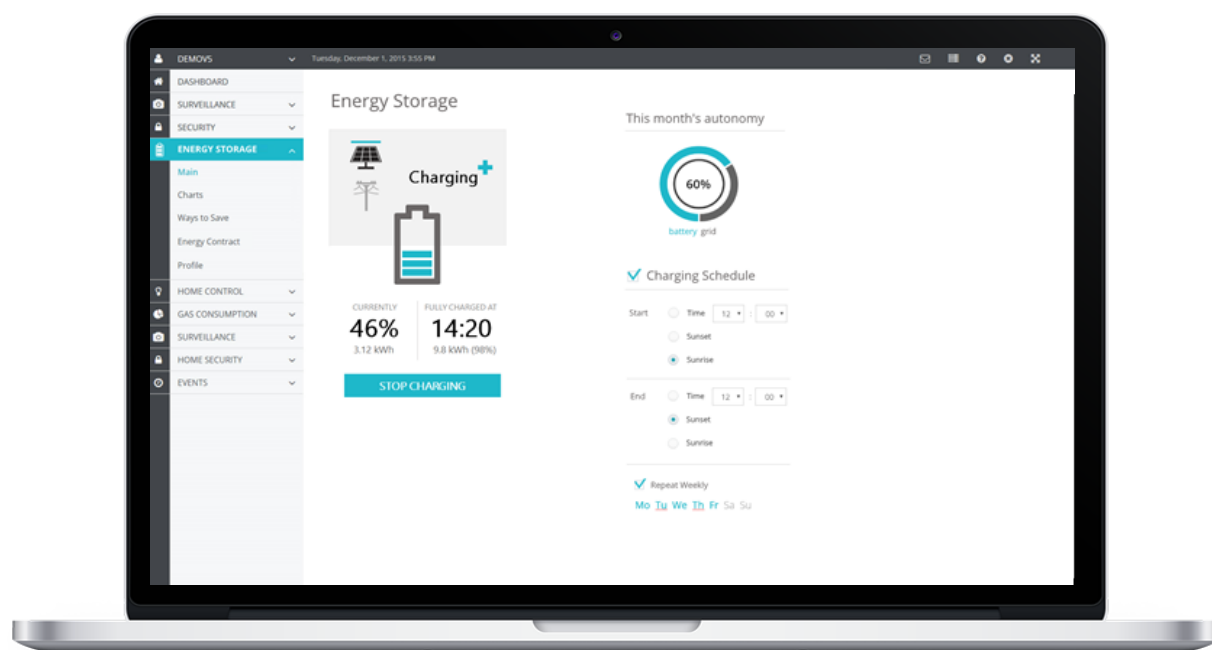
BENEFITS

UTILITIES The Energy Storage Application benefits the service provider in several ways, mainly by allowing utilities to use batteries as powerful load-management resources. This application is a solid product that helps consumers control their electricity use by monitoring the battery status, which increases user engagement, captures new customers and decreases churn.

Finally, and since the Energy Storage Application is part of the SDP, this offer can be complemented at any time with any of the other services offered by the platform, for instance, advanced automation and energy management.



CUSTOMERS There are several benefits for storage owners monitoring their battery charging, starting with managing costs. Prosumers can use their production fully when they have a solar battery installed, and any consumer can choose the time of day they want to charge or discharge the battery, for instance, when electricity is most expensive. Moreover, they can also get monetary incentives from utilities to use the battery for load balancing at peak times.



CONTACTS

Website

<http://www.cside.pt>



Porto



Cais do Lugan 224 2º dto.
4400-492 **Vila N. de Gaia**



Phone +351 221 450 254

Lisbon



Rua Alexandre Herculano 17,
c/v esq. 1250-008 **Lisbon**



Phone +351 211 450 254