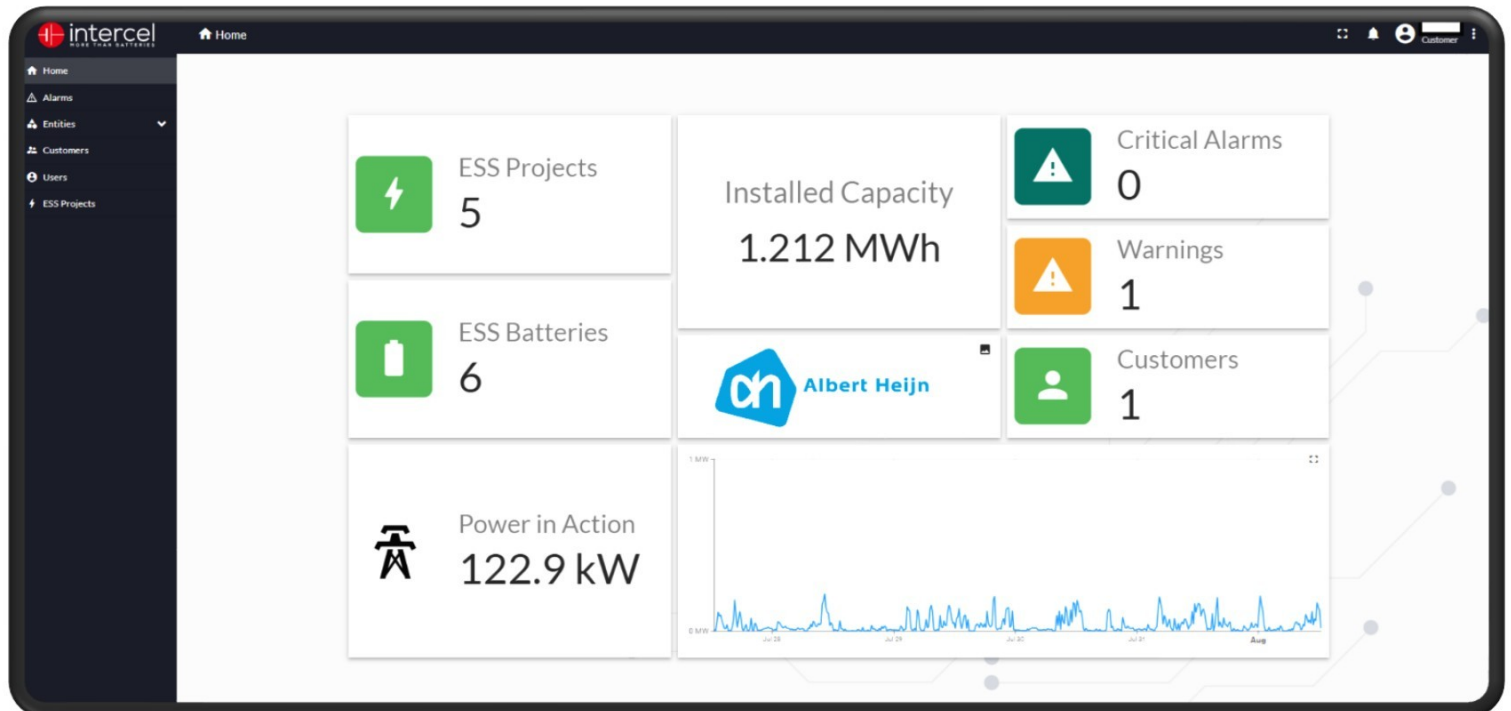


CELL POWER

Example IOT/ monitoring dashboard



Overview all projects in IoT monitoring dashboard



Tile view

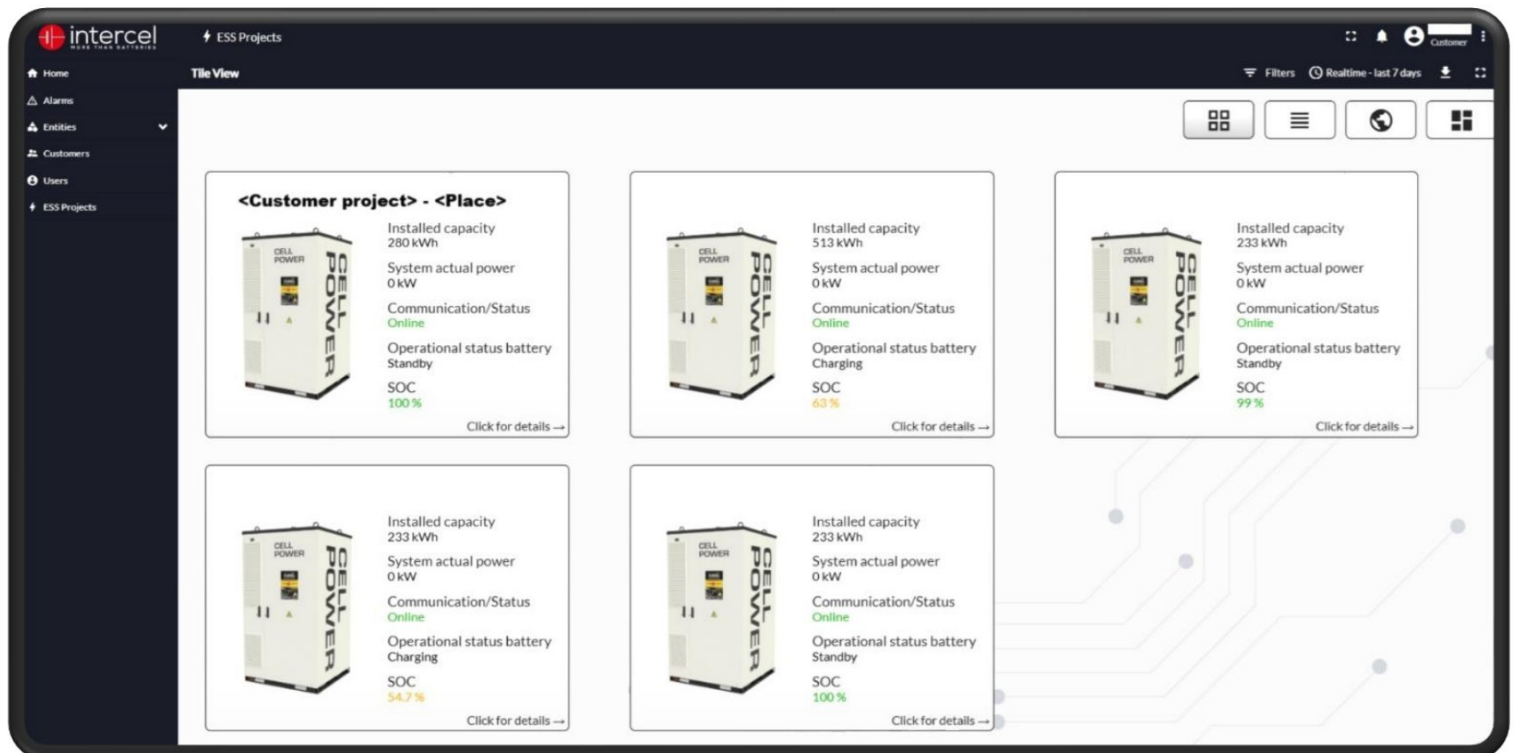
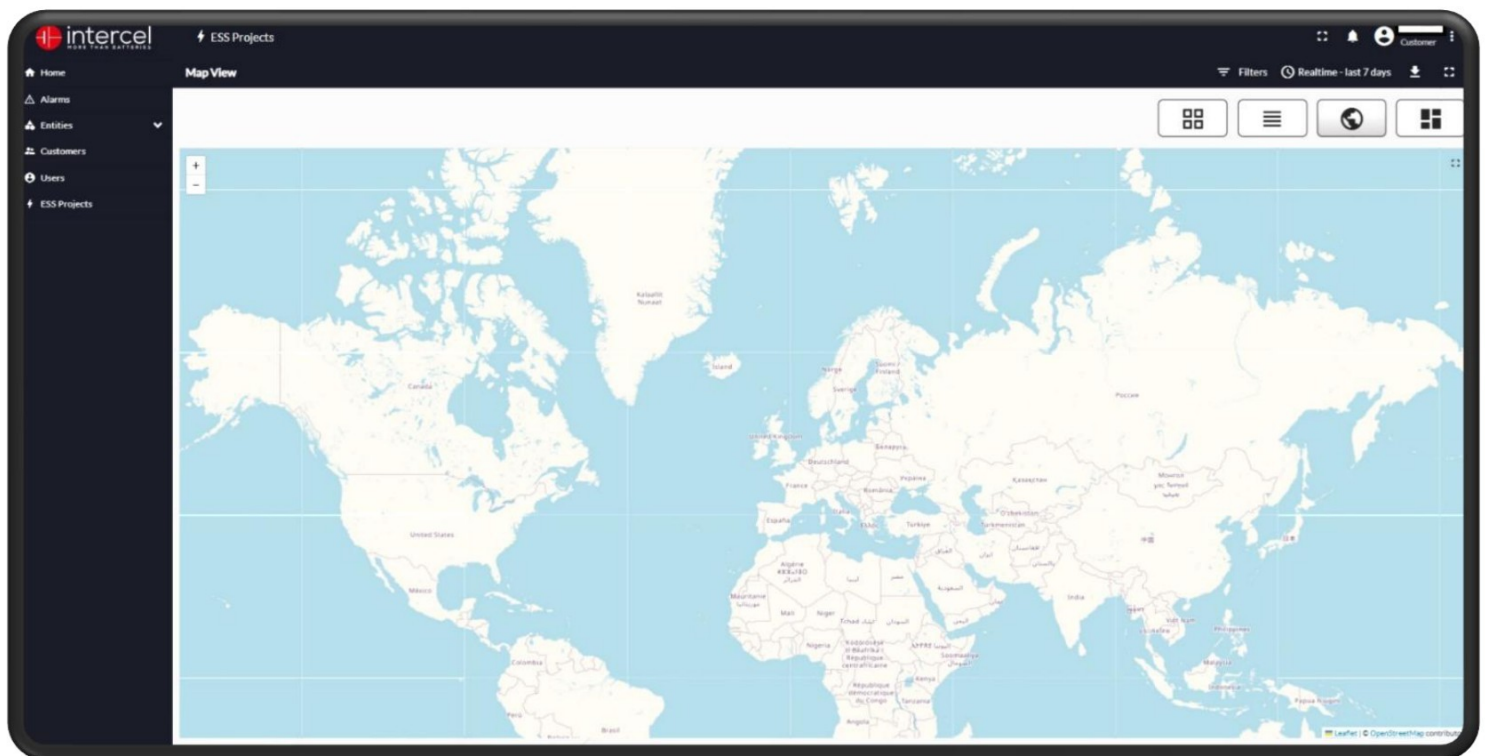


Table view

The screenshot shows the 'Table View' of the Intercel ESS Projects dashboard. The interface includes a sidebar with navigation links (Home, Alarms, Entities, Customers, Users, ESS Projects) and a top header with the Intercel logo, 'ESS Projects', and user information. The table displays the following data:

ESS Label	Installer	Installed capacity	System actual power	Operational status battery	SOC	Communication/Status	Last update	Alarms
		513 kWh	-72.9 kW	Charging	64.1 %	Online	11 seconds ago	
		233 kWh	0.0 kW	Standby	99 %	Online	13 seconds ago	
		233 kWh	0.0 kW	Standby	100 %	Online	14 seconds ago	
		233 kWh	-37.6 kW	Charging	55.8 %	Online	11 seconds ago	
		200 kWh	0.0 kW	Standby	100 %	Online	10 seconds ago	

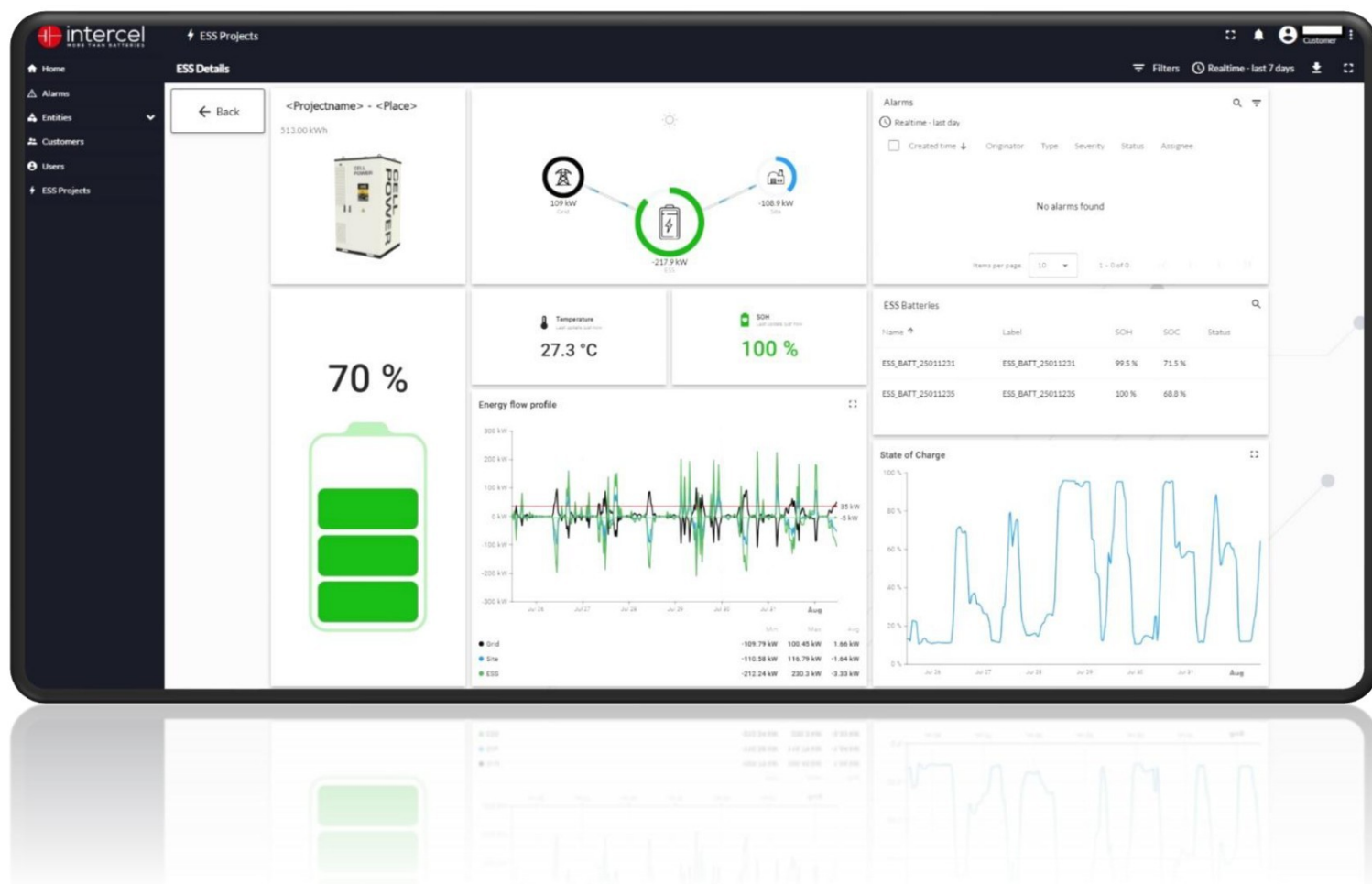
Map view



We created the map view specifically to allow you to pinpoint the exact location of the batteries. Large sites, such as distribution centers, often have one or multiple addresses where it's not immediately clear where the batteries are located on site. By working with coordinates, this becomes possible.

Overview specific project

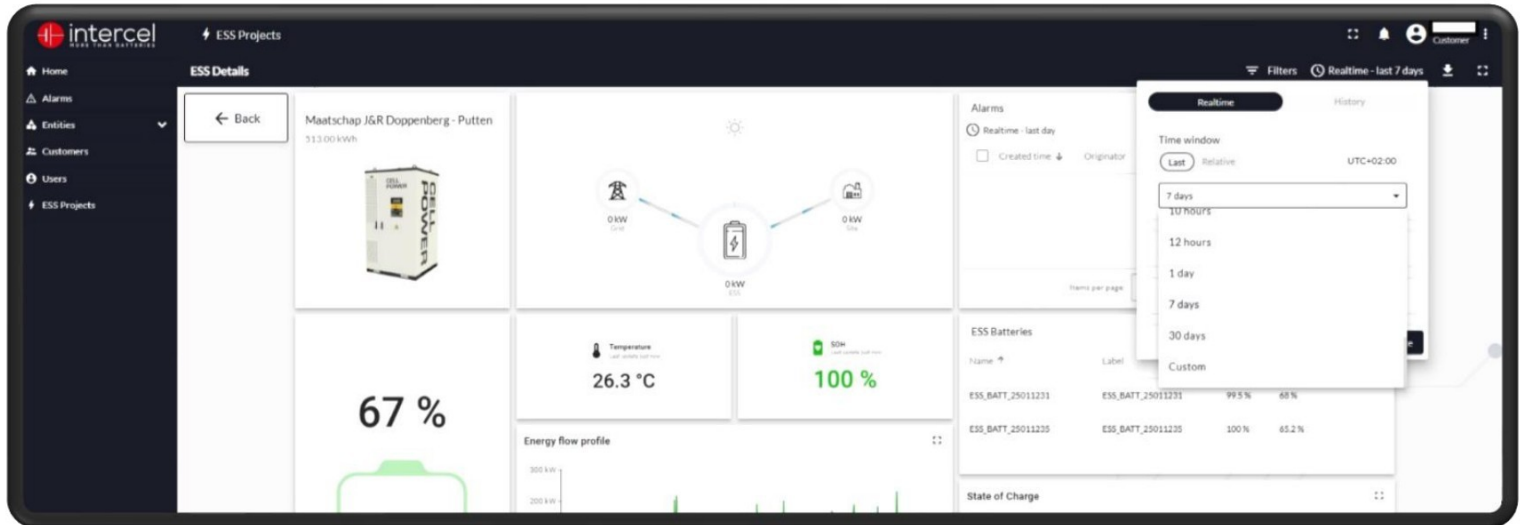
Homepage



On the homepage of this specific project, you can find an overview of the project's key data (from top left to bottom right):

- Total installed capacity
- State of Charge (SOC)
- Live graph of the power flow (from grid to BESS to building)
- Temperature at the BESS location
- State of Health (SOH)
- Historical energy flow profile (min – max – average)
- Open alarms
- Installed batteries at this project
- Graph of the historical State of Charge (SOC)

Filter and export possibilities



In the top right corner of the screen, it is possible to apply filters for:

- Specific time frames (e.g., last 7 days, months, etc.)
- Aggregation level (e.g., minimum, maximum, average, sum, etc.)
- Grouping interval (e.g., 30 minutes, 5 minutes, etc.)

Each filter can be customized to meet the specific needs of the customer. Additionally, all data can be exported in various formats such as PDF, JPEG, and more.

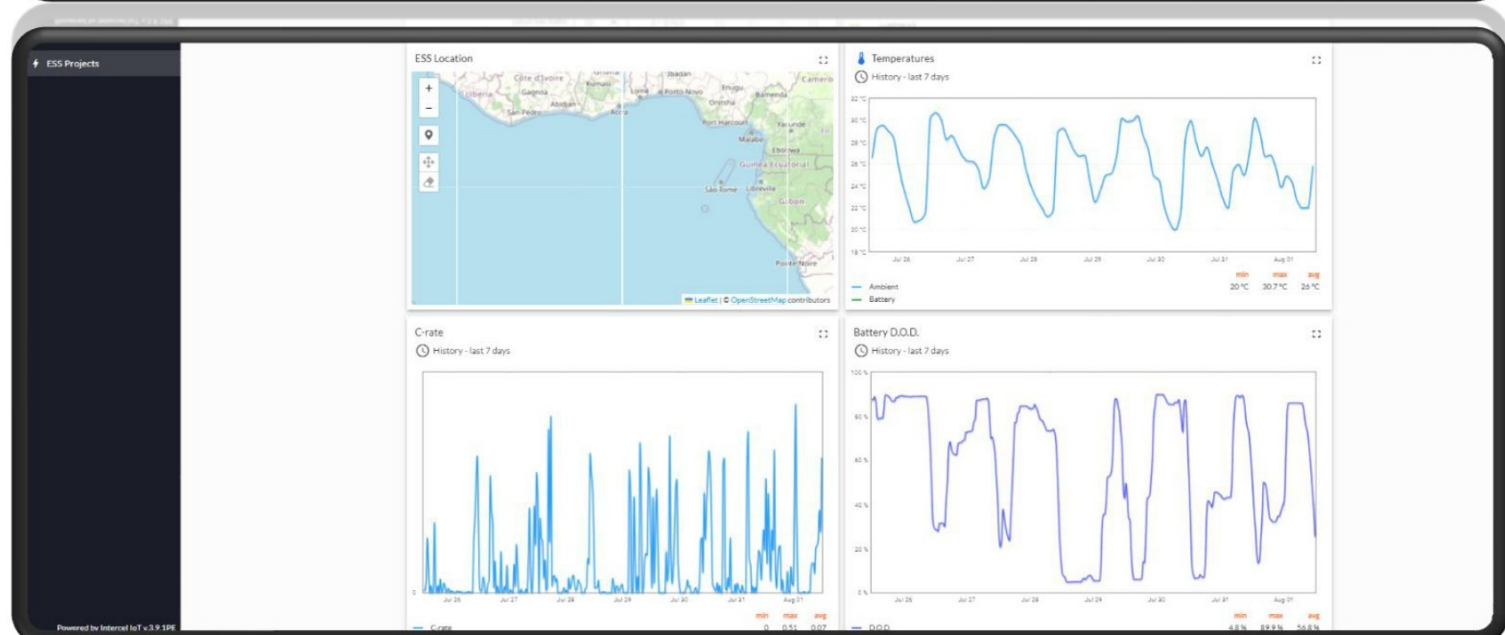
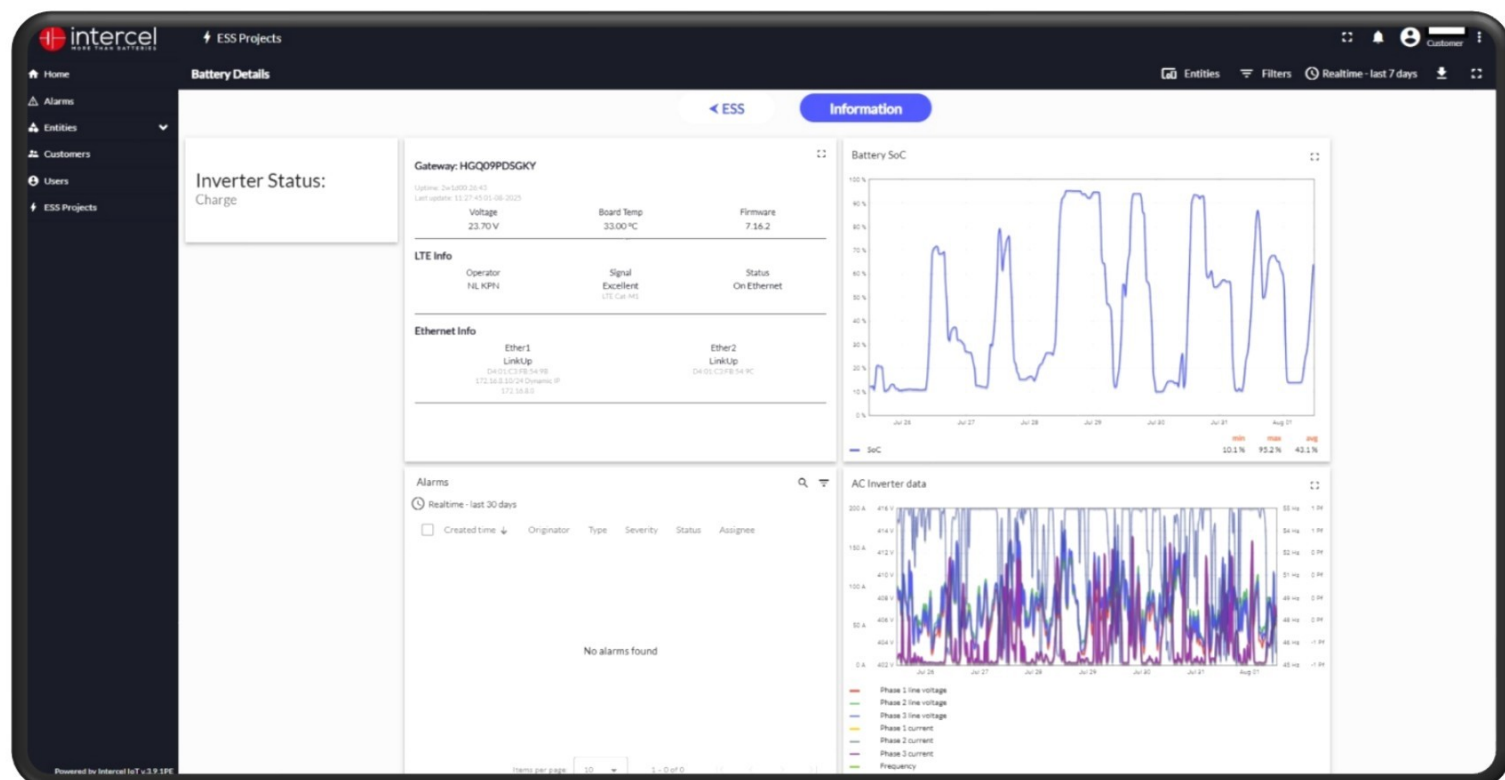
Battery specific data within the project



As explained above, you can see which batteries are installed on this specific project in the middle-right section. As you can see here, highlighted in green, two batteries have been installed on this particular project. By clicking on one of the two batteries, you will be taken to the battery overview environment, where you can then click through each component to access the desired information.

Overview specific Battery

Homepage

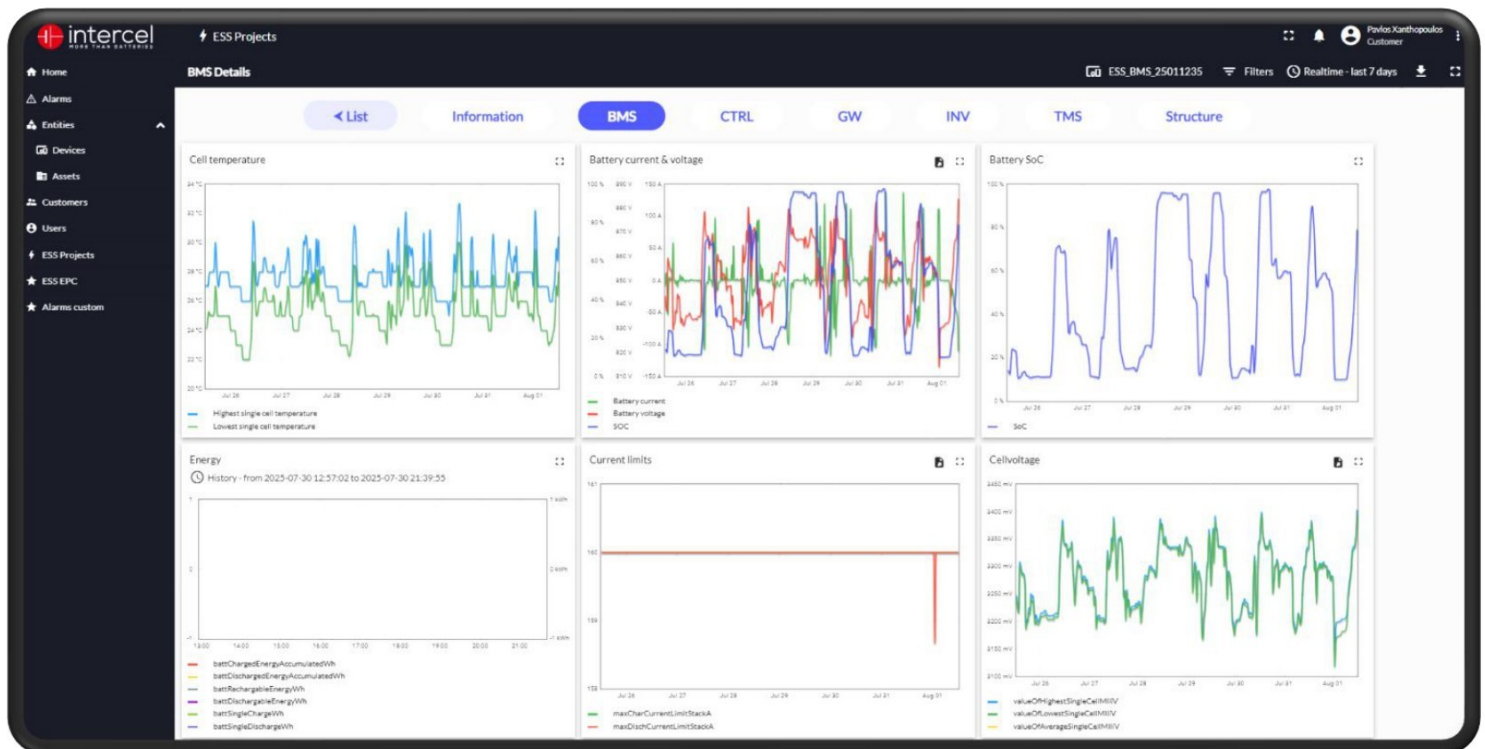


When you click through to the battery, you will arrive at the homepage of the battery environment. Here, you can find the following information and data (from top left to bottom right):

- General information about the battery (e.g., firmware, IP addresses, Ethernet status, etc.)
- State of Charge (SOC) of this specific battery
- Any active alarms
- Alternating Current (AC) data (e.g., voltage and current per phase, frequency, and power factor)
- The ESS location
- Temperatures
- C-rate
- Battery Dept of Discharge (D.o.D.)

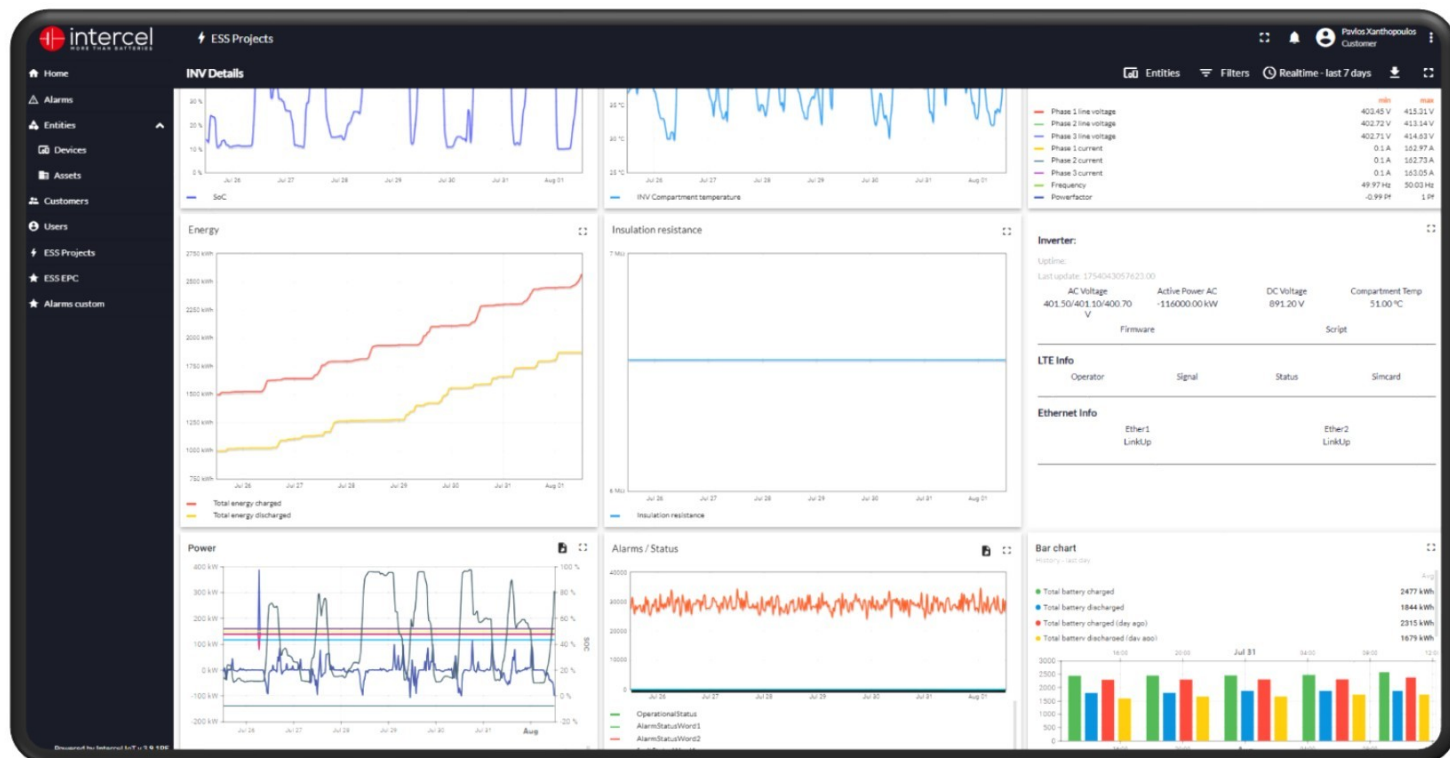
As before, it is possible to apply filters and export data from the top right corner.

BMS information



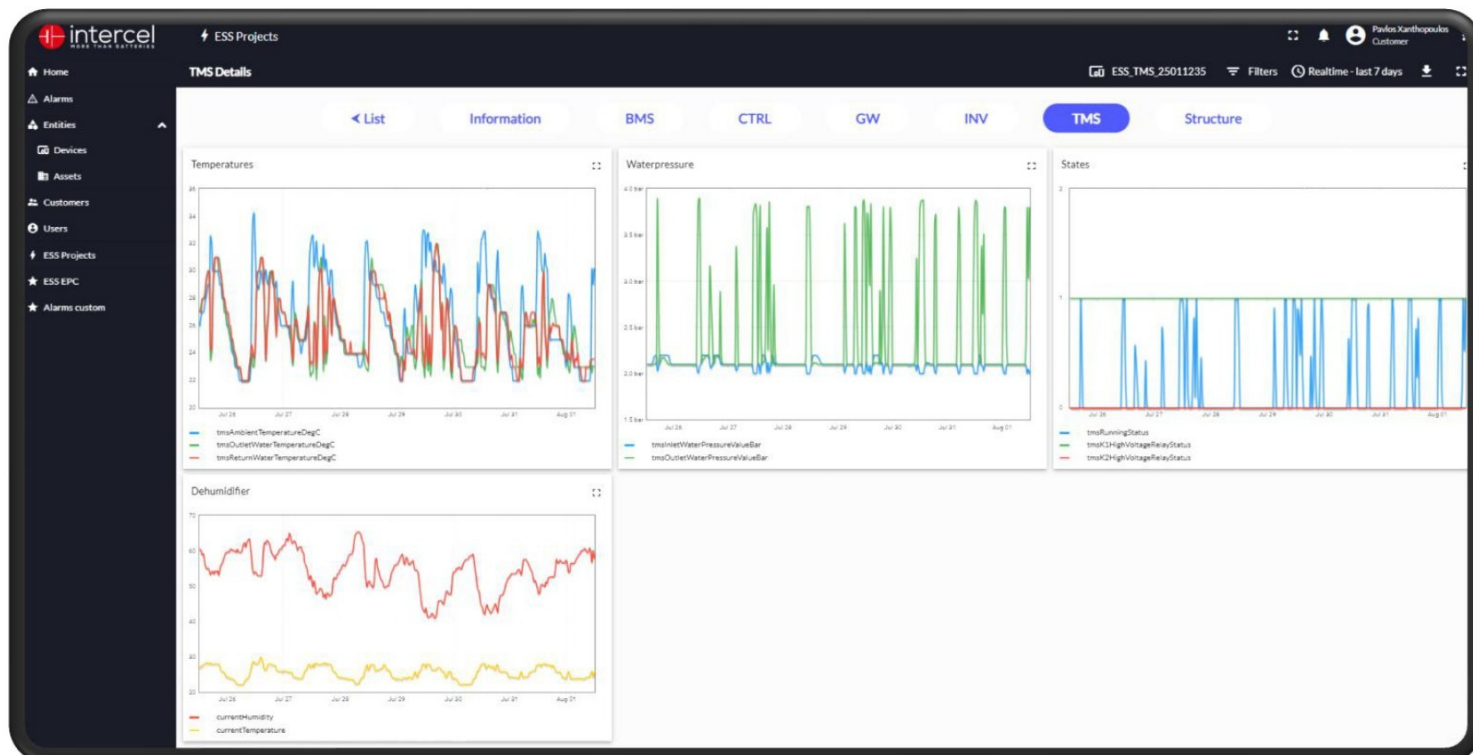
Next, it is possible to click through to each critical component to view the relevant information. Below, you can see the information available under the BMS section, such as cell temperature, voltages, current, or the number of cycles the battery has completed. This information can be important for warranty purposes and for optimizing battery usage.

Inverter information



The same applies, for example, to the inverter, where you can find information such as power factor, insulation resistance, received setpoints, and more.

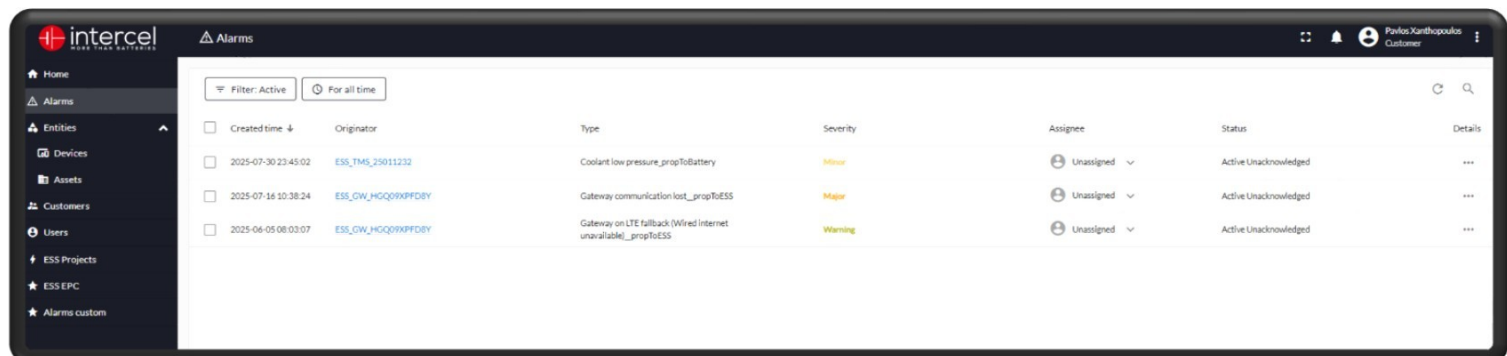
Thermal Management System (TMS) information



Or the information about the thermal management system, where you can view water pressure, temperature, and the operation of the liquid cooling system and the dehumidifier.

This live insight and data make it easy to monitor the system's performance, identify any irregularities, and provide service when needed. Of course, any deviations are clearly shown in the overview, so there is no need to manually check each graph one by one.

Servicing & tracking of alarms



The screenshot shows the 'intercel' Alarms dashboard. The left sidebar contains navigation links: Home, Alarms, Entities, Devices, Assets, Customers, Users, ESS Projects, ESS EPC, and Alarms custom. The main area displays a table of active alarms with columns for Created time, Originator, Type, Severity, Assignee, Status, and Details. The table lists three alarms, all with a status of 'Active Unacknowledged' and an assignee of 'Unassigned'.

Created time	Originator	Type	Severity	Assignee	Status	Details
2025-07-30 23:45:02	ESS_TMS_25011232	Coolant low pressure_propToBattery	Minor	Unassigned	Active Unacknowledged	...
2025-07-16 10:38:24	ESS_GW_HGQ9KXPF8Y	Gateway communication lost_propToESS	Major	Unassigned	Active Unacknowledged	...
2025-06-05 06:03:07	ESS_GW_HGQ9KXPF8Y	Gateway on LTE fallback (Wired internet unavailable)_propToESS	Warning	Unassigned	Active Unacknowledged	...

Any potential battery irregularities are visible at the component level and are listed in the alarm overview. This overview includes the time and date the alarm was triggered, the originator (which can be directly accessed), the alarm code, and the severity level. This information helps determine what is required to resolve the alarm and how to proceed.

It is also possible to assign a responsible person and track the status of the alarm, allowing the service manager to monitor whether the necessary actions have been taken and the issue has been resolved.