

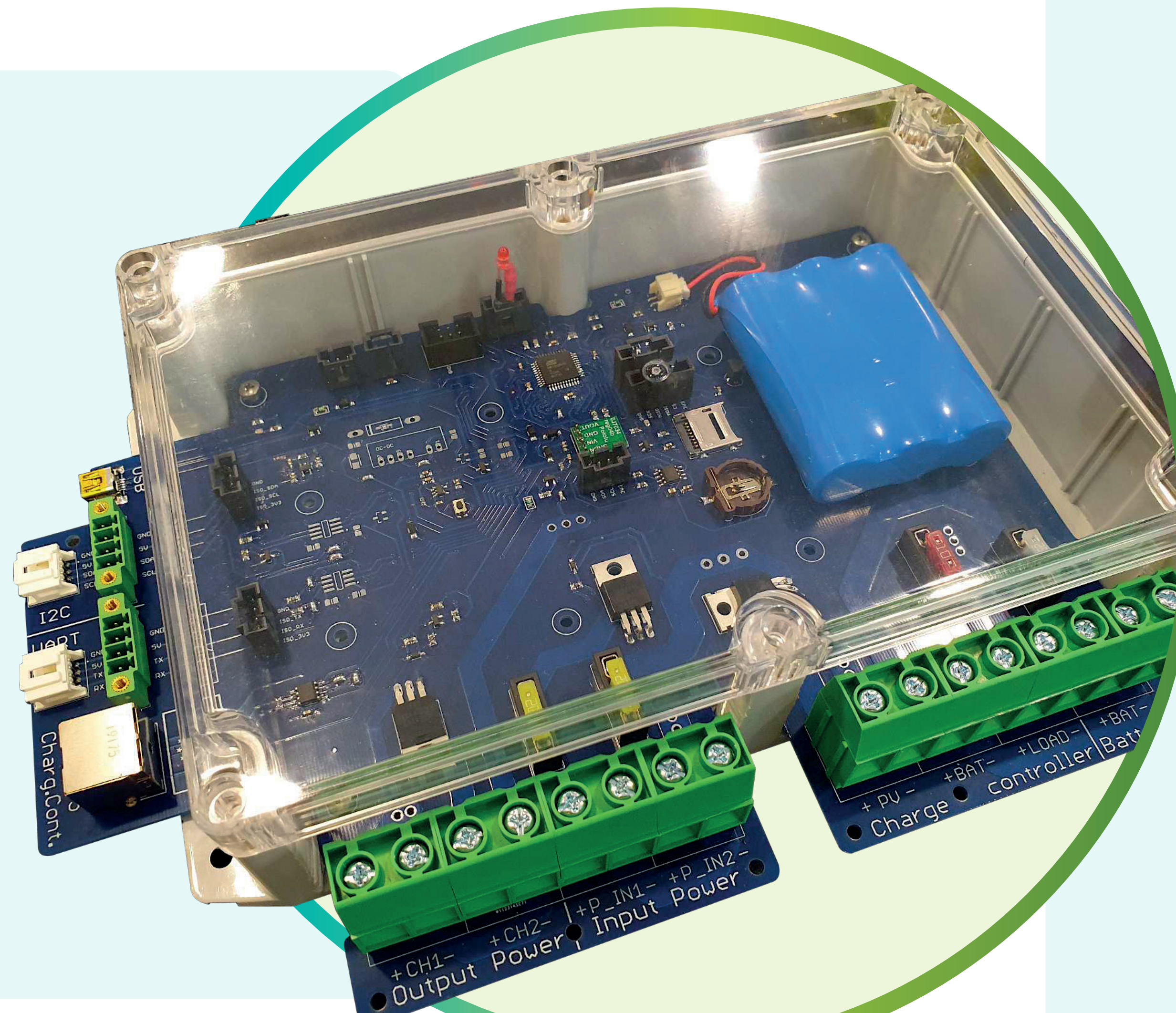
EMS THE ENERGY MANAGEMENT SYSTEM

The Energy Management System prototype is a device developed to interconnect various components (power supply converters, battery, solar panel and devices that require power supply) and allows to provide energy measurements and supply power in a smart and controlled way

by UNPARALLEL

OPERATION

- Fully programmable via serial commands
- Configurable low power consumption modes
- Real-time power statistics
- Two output power channels configurable with timers
- Built in protection: overcurrent, overcharge, overdischarge, reverse polarity and deep discharge cycle protection



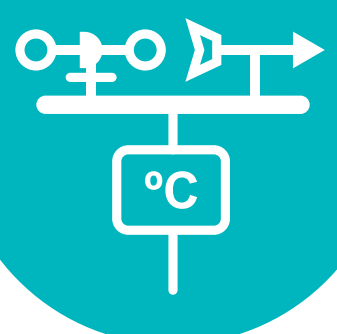
DEPLOYMENT

- Waterproof connections with IP68 rating
- Device indicated to be placed in a remote and harsh environment with scarce energy resources

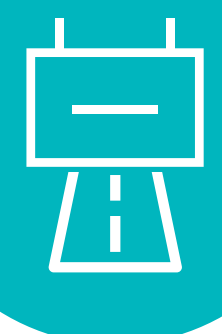
MODULAR APPROACH

- Multiple output power supply voltages (12V, 24V, 48V...)
- Maximum Power Point Tracking MPPT with large input voltage
- Configurable multiple input power sources)
- Configurable battery types (Lithium / Lead-Acid / Gel / Sealed / Flooded)

Typical applications



To integrate with a weather station for real-time weather parameters



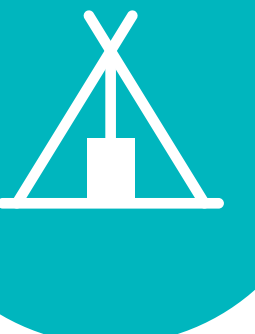
Informative panels in Highways



Video Surveillance for Traffic and Highways Monitoring



Advertising panels illuminated at night

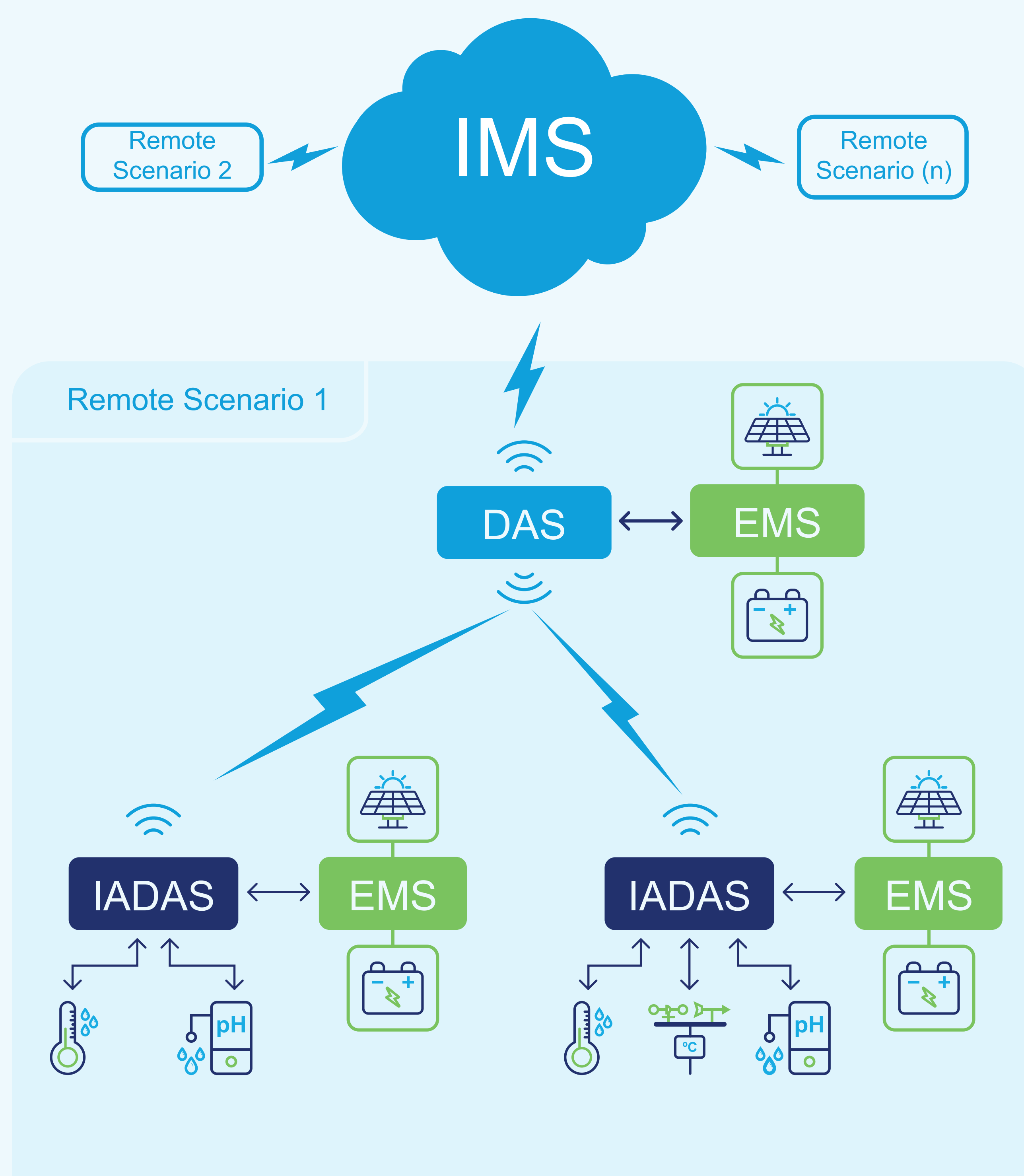


Camping and caravanism

IMPAQT

Intelligent Management System for Integrated Multi-trophic Aquaculture

The IADAS is a device that collects all measurements from the sensors connected to it and sends the measurements to the DAS in its range by LoRa. To support the power requirements of all sensors and IADAS, an EMS (with every power requirement needed such as 12V, 24V...) is used so that the data is flowing by periodic measurements being an energetically sustainable and autonomous system. Similarly, an EMS is placed with the DAS, device that collects all data from all IADAS devices in its coverage area (through LoRa) and forward it to a cloud system platform IMS where this data is stored and can be seen in real-time through a dashboard, allowing the DAS to be energetically sustainable by using an EMS to manage all the energy requirements while keeping the communication of data flowing periodically.



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