



EMPOWER YOUR HOME & BUSINESS
WITH SMART MICROGRID AND
ENERGY MANAGEMENT SYSTEM

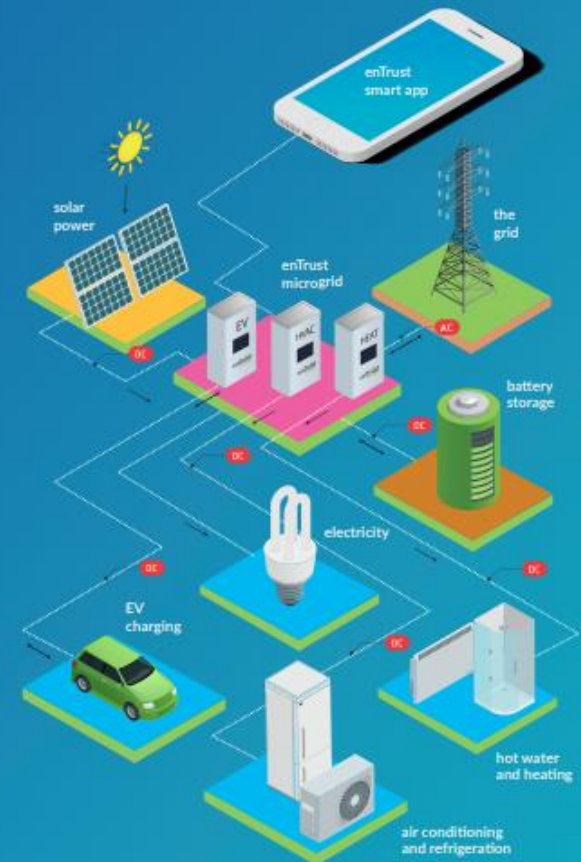
Your Future Sustainable Energy System Solution

EnSmartMGrid - Entrust Smart Microgrid For Your Home & Business

Professor Xiongwei Liu
xiongwei.liu@entrustmicrogrid.com



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technology
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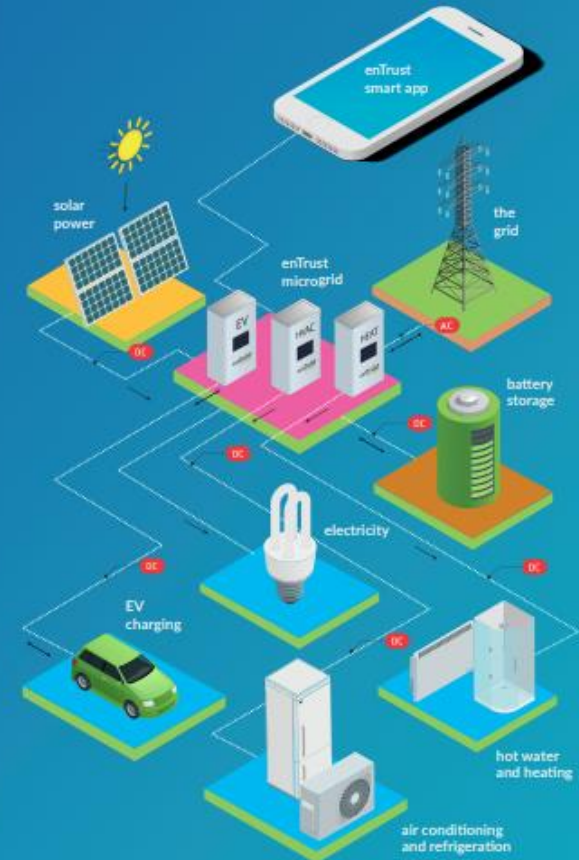
Your Future Sustainable Energy System Solution

EnSmartMGrid

Smart hybrid DC- and AC-networked microgrid,
integrating solar PV/BIPV, battery storage, EV
charger, heat pump, water pump at the DC side,
with smart EMS, for properties, buildings and
communities, for on-grid, off-grid and hybrid
grid connection applications.



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Features (Innovations and USPs)

- ✓ Very low grid connection capacity and cost
 - ~80% reduction for on-grid applications
 - Fast grid connection for superfast EV chargers, data centres, etc.
- ✓ Maximising embedded/integrated solar PV installation and self consumption
 - Maximising the benefits of solar and battery storage installation
- ✓ High power efficiency
 - ~10% higher than AC-networked microgrid solutions
- ✓ Simplified variable frequency inverters for heat pumps and water pumps
 - ~50% cost reduction for variable frequency inverters

enTrust
microgrid

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EnSmartEV -

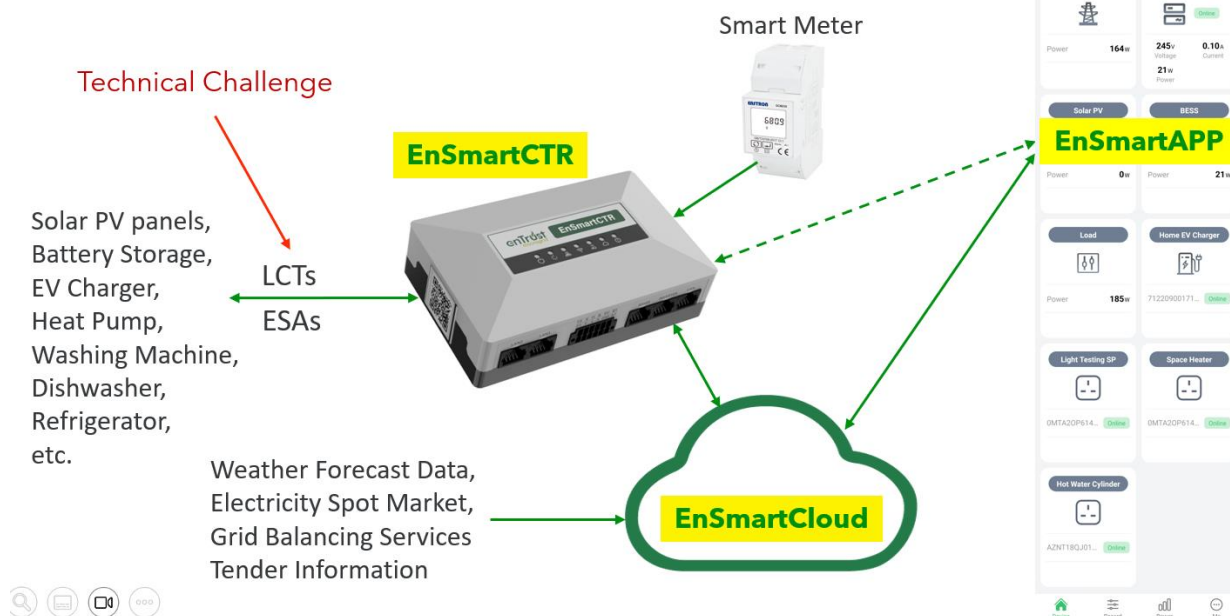
Bidirectional DC/DC EV
Chargers Embedded in
EnSmartMGrid

EnSmartHEMS – Smart EMS for Your Home and Business

Benefits for Consumers

- ✓ Low energy bills: ~30% reduction
- ✓ Maximum self-consumption of solar PV power
- ✓ Real-time monitoring and control
- ✓ Excellent users experience
 - comfort, convenience and simplicity
- ✓ Extra income from energy flexibility services

Feature: Independent of LCT vendors performance





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EnSmartMGrid with EnSmarHEMS LLHs



Solar PV Roof Tiles



Used EV battery as BESS



Heat Pumps





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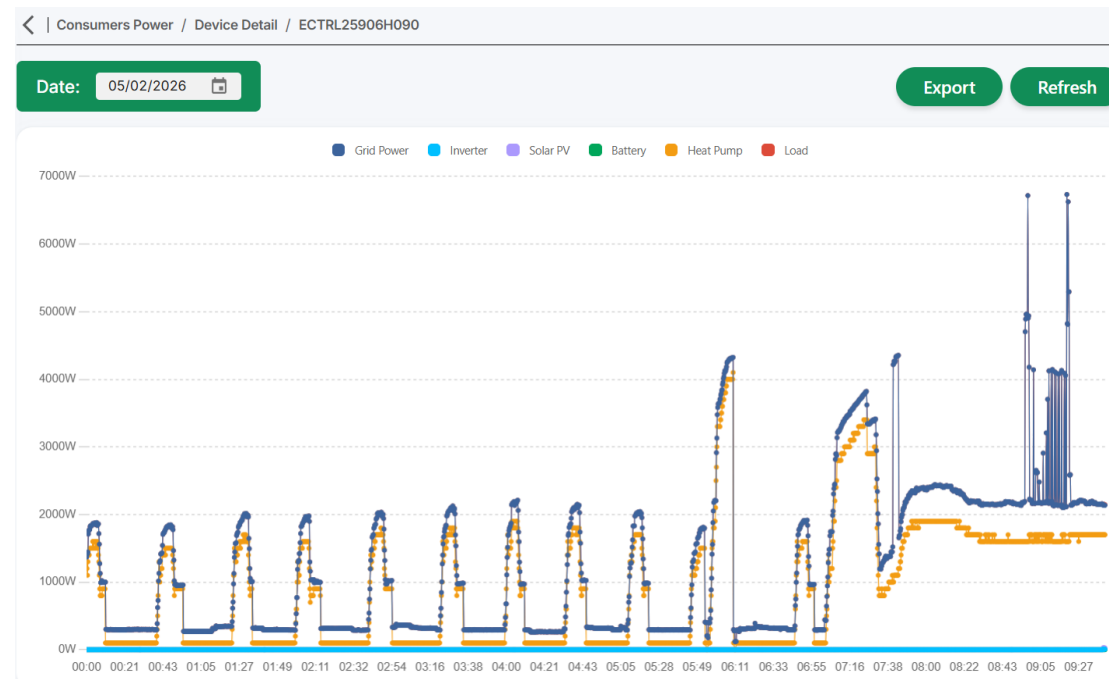
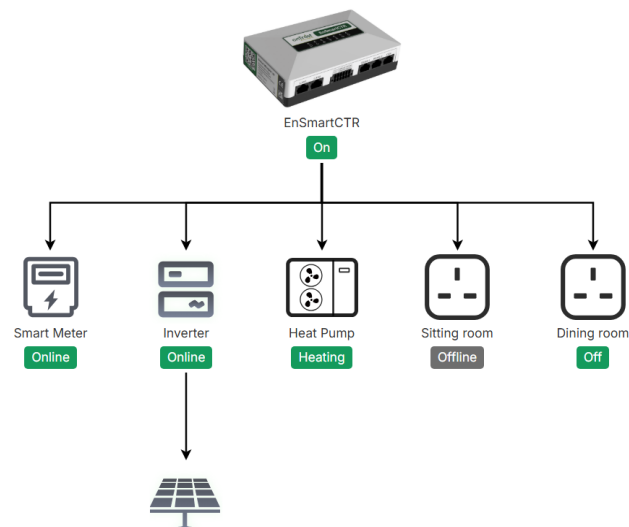
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EnSmartHEMS – Smart EMS for Your Home and Business

Case Studies

ECTRL25906H090





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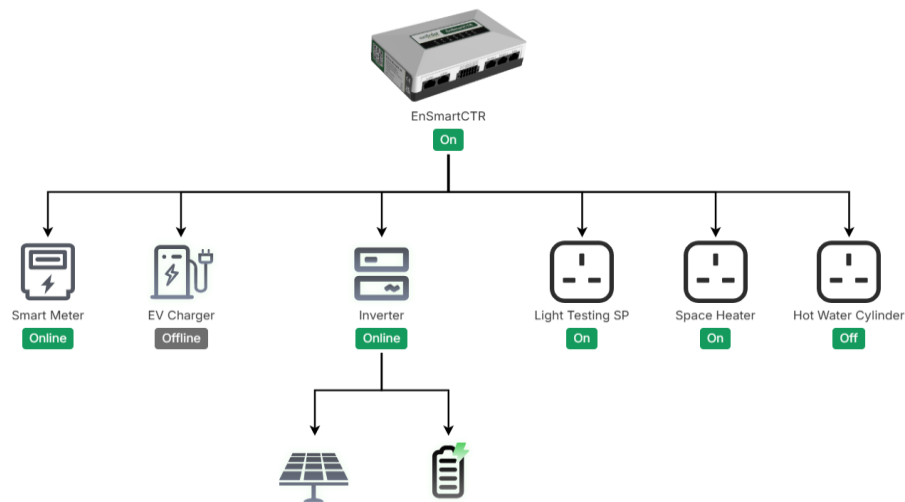
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Case Studies

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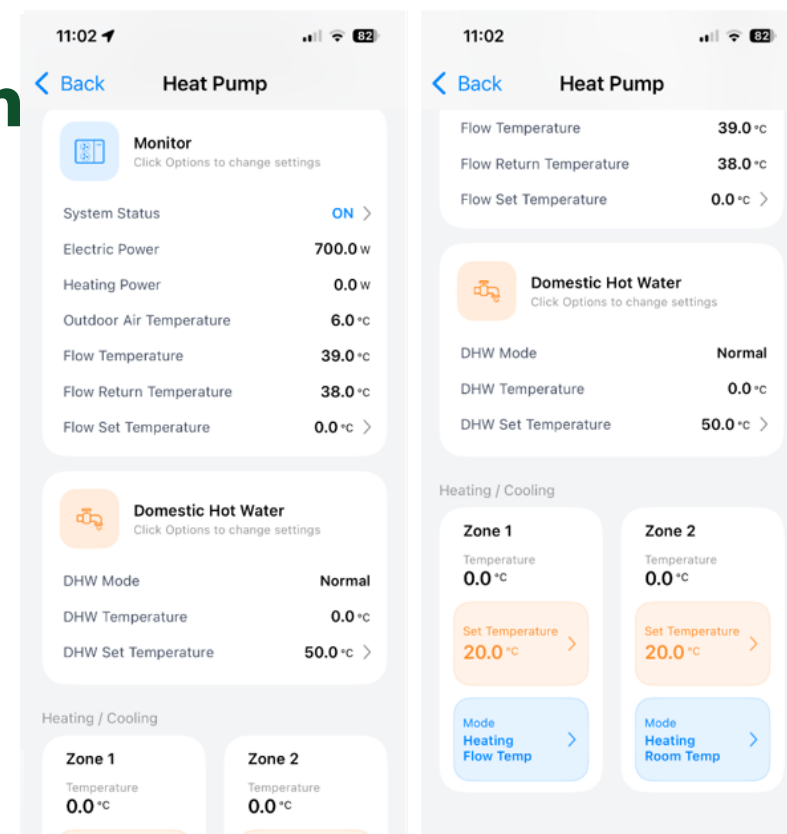
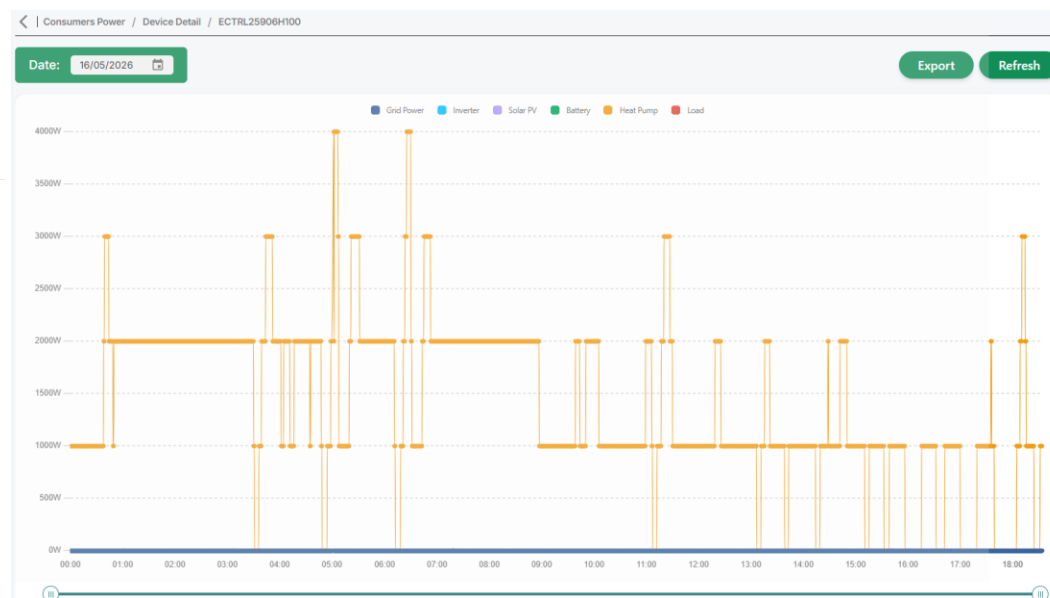
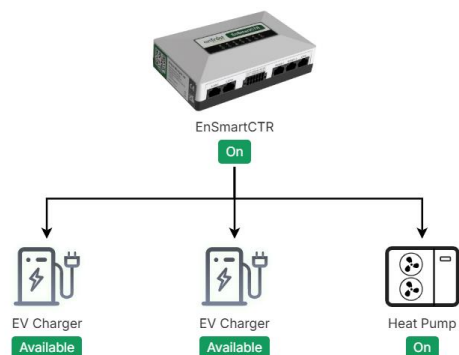
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EnSmartHEMS – Smart EMS for Your Home and Business Case Studies

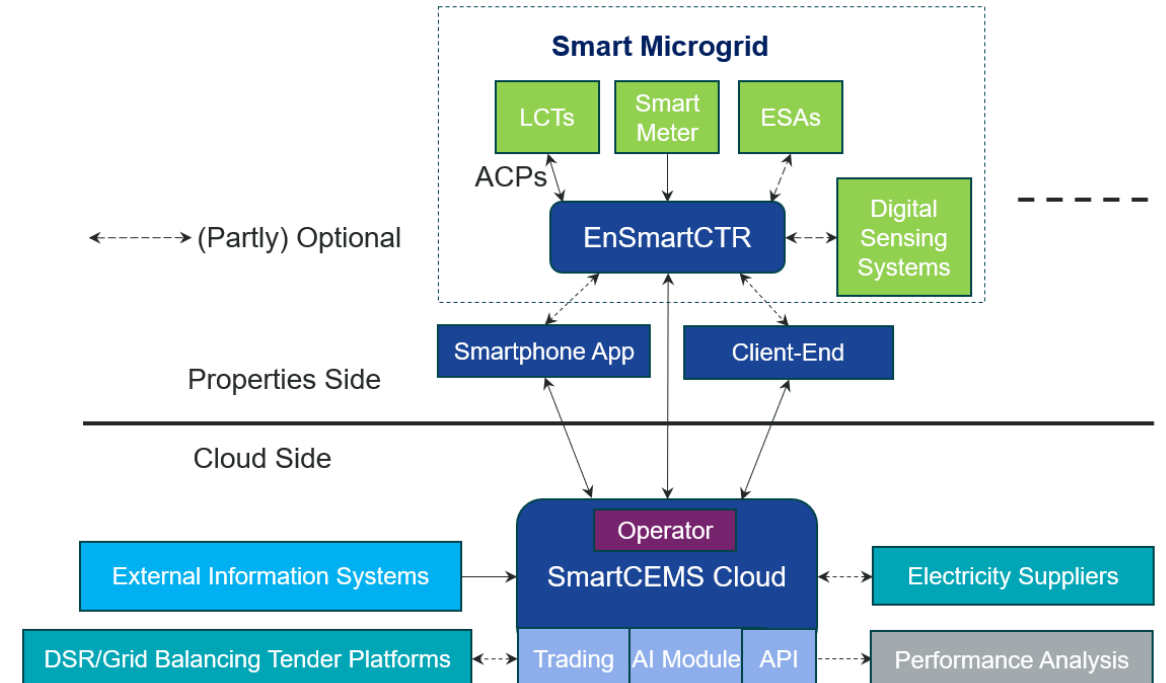
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EnSmartCEMS with EnSmartHEMS

Features

- Extended LV network life span accommodating high penetration of LCT installations: heat and transport electrification
- Smart and resilient LV networks: congestion management
- Potential community energy resources sharing and P2P energy trading
- Potential VPP: virtual power plant
- Independent on LCT/ESA vendors clouds: high reliability, cybersecurity, GDPR





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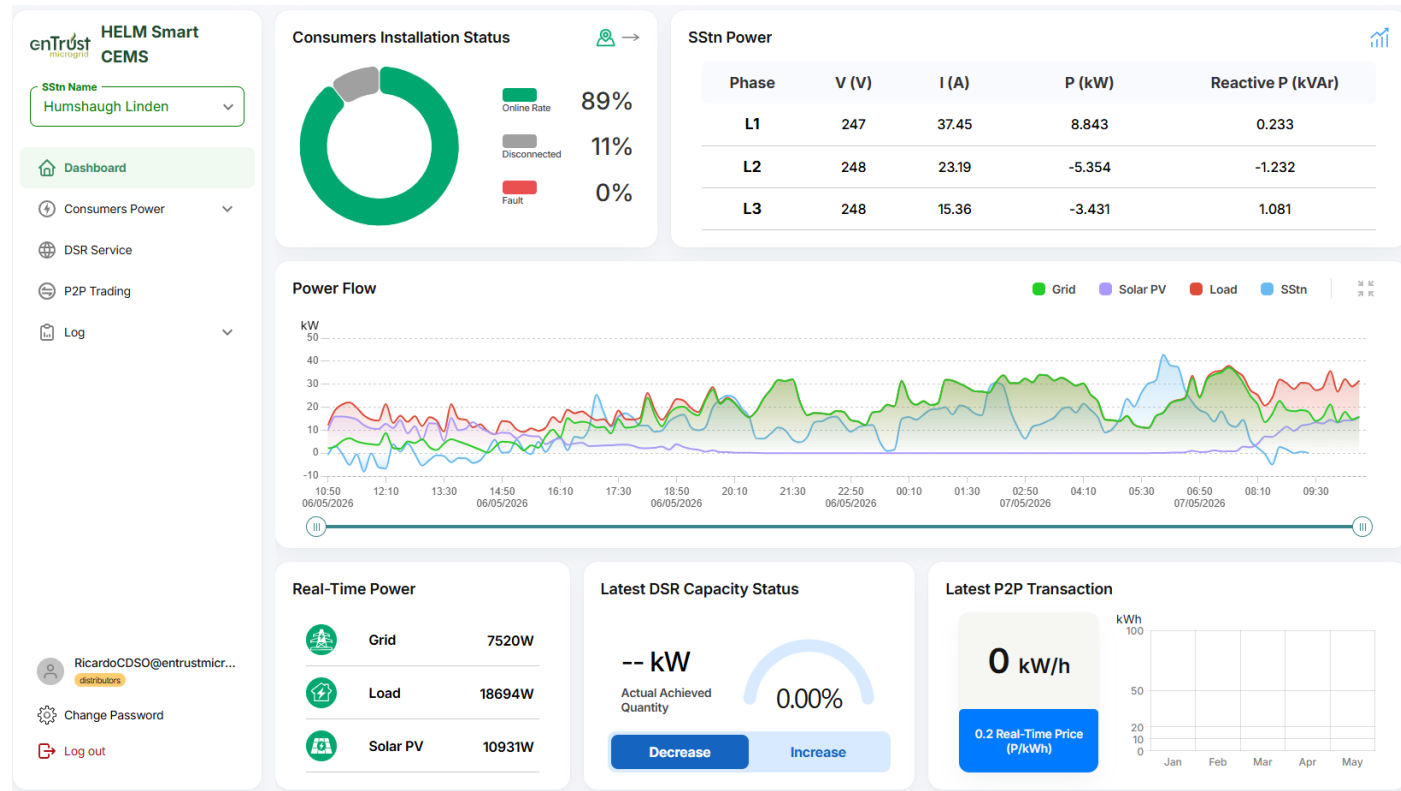
EnSmartCEMS with EnSmartHEMS

Case Study:

- Ofgem CDSO Trial 2
Project HELM

Partners:

- Ricardo
- HNZ CIC
- Entrust Microgrid



**THANK
YOU**



- Professor Xiongwei Liu
- Xiongwei.liu@entrustmicrogrid.com
- <https://www.entrustmicrogrid.com/>
- www.linkedin.com/in/xiongwei-liu-entrust-microgrid