KSTAR
Powering the Future

KSTAR Case Study

KSTAR C&I ESS Cases

BluePulse Series

www.kstar.eu

2025

BluePulse Series

Safe & Reliable

- CATL LFP Battery Cell
- Double Fire Suppression System Design
- 1+1 Redundancy Design

Simple & User-friendly

- Pre-installed in Factory for Easy Installation on site
- Integrated BMS/EMS, Suitable for Various Applications
- Effortless Operation, Cloud Control

Economical & Efficient

- Save CapEx, Expanding as Required
- Efficient and Energy-saving HVAC Design



KSTAR C&I ESS Installation Worldwide

EU

3,000+
units installed

180+ MW

283+ tons
CO_2 saved

Global

5,000+
units installed

300+ MW

471+ tons
CO_2 saved









Project Cases – Dynamic Control (VPP)

Location :

Murska Sobota, Slovania

Capacity:

1MW / 2MWh
10 units of 2*KAC50DP-BC197DE
No connected loads but installed as part of the local VPP project
Discharge to the grid at the evening to ease the energy peak





Project Cases - Peak Shaving

Location :

Meat Processing Factory, Guijuelo, Spain

Capacity:

600kW, 1.2MWh
12 sets KAC50DP-BC100DE







Project Cases - Dynamic Control

Location :

Communicatieweg 29 Mijdrecht, Netherlands

Capacity:

100kW / 200kWh
2*KAC50-BC100DE
Third party EMS with manural control



Project Cases - Peak Shaving

Location :

Prebold , Slovenia

Capacity:

150kW, 600kWh








Project Cases - Self Consumption

Location :
Madignano, Italy

Capacity:
400kW / 788kWh
4 units of 2*KAC50DP-BC197DE

Project Cases - Peak Shaving

Location :
Fish Farm, Zhmerynka, Ukraine

Capacity:
200kW / 394kWh
2 units of 2*KAC50DP-BC197DE











Project Cases – Time of Use

Location :

Nova Polom, Czech Republic

Capacity:

100kW, 200kWh



Project Cases - Dynamic Control

Location :

Cluj Napoca, Romania

Capacity:

1MWh

5 units of 2*KAC50DP-BC197DE



Project Cases - Dynamic Control

Location :

Mohács, Hungary

Capacity:

100kW / 200kWh
2 Units of KAC50DP-BC100DE + EMS01D
AC-coupled
Stable power supply for health facility







Project Cases - Dynamic Control

Location :

North Macedonia

Capacity:

700kW / 1.4MWh

14 sets KAC50DP-BC100DE with 1 EMS01D







Project Cases - Energy Independence (off-grid)

Location :

Khmelnytskyi district, Vinkovci, Ukraine

Capacity:

100kW / 394kWh
2*KAC50DP + 2*BC197DE + STS100D
Expanded from 197kWh to 394kWh for full off-grid capability
Scalable design allowed for post-installation capacity doubling
100% grid independence for milk farm operations







Project Cases – Self Consumption & Peak Shaving

Location :

Hansen Village, Norse, Ukraine

Capacity:

200kW / 400kWh & 1MW / 1.72MWh
2*KAC50DP + 2*BC100DE + 2*STS100D for backup power during outages
8*KAC125DP + 8*BC215DE for peak shaving and cost reduction
Dynamic energy solutions for a resilient community

01

Case - Self Consumption







Project Cases - Self Consumption

Location :

Milanovo, Bulgaria

Capacity:

250kW / 494kWh

5*KAC50DP + 2*BC197DE + BC100DE

Reduce utility cost for local dairy factory

PARSHEVITSA







Project Cases - Self Consumption

Location :

Ruse, Bulgaria

Capacity:

3*KAC125DH + 3*BC233DE
Charging from AC-couple installation
Reduce utility cost for local butchery **Borimes Ltd.**





Project Cases - Self Consumption

Location :

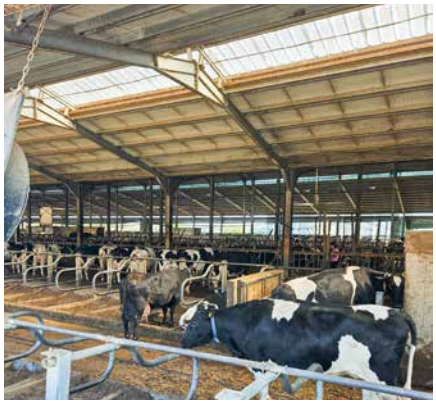
Lovets, Bulgaria

Capacity:

125kW / 215kWh
KAC125DH-BC215DE
Charging from AC-couple installation









Project Cases - Self Consumption

Location :

Dobri Dol, Bulgaria

Capacity:

250kW / 494kWh

5*KAC50DP + 2*BC197DE + BC100DE

Reduce utility cost for local milk farm



Project Cases - Self Consumption

Location :

Bykev, Czech Republic

Capacity:

100kW / 200kWh
2*KAC50DP + 2*BC100DE + STS100
Reliable backup power for cardboard factory





Project Cases - Self Consumption

Location :

Bakov nad Jizerou, Czech Republic

Capacity:

50kW / 197kWh

KAC50DP-BC197DE

Reliable solar solution for energy-intensive veterinary surgery and indoor pool heating





Project Cases - Self Consumption

Location :

Rodnow, Poland

Capacity:

50kW / 100kWh
KAC50DP-BC100DE + STS100D
Integrated with existing PV and diesel generator
Decreased grid dependency with seamless backup for entire bakery
Optimized diesel generator usage through STS integration



Project Cases - Self Consumption

Location :

Deszk, Hungary

Capacity:

250kW / 500kWh
5 Units of KAC50DP-BC100DE + STS250
On/off grid switching for regional blackouts
Stable power supply for water pumps, help with agri-PV







Project Cases - Self Consumption

Location :
Bulgaria

Capacity:
100kW / 394kWh
2 units of KAC50DP-BC197DE



Project Cases – Self Consumption

Location :

Molding Factory, Lichtenstein, Germany

Capacity:

100kW / 200kWh
2 units of KAC50DP-BC100D







Project Cases - Self Consumption

Location :
Hungary

Capacity:
250kW / 500kWh
5 units of KAC50DP-BC100DE

Project Cases - Self Consumption

Location :
Murovane, Ukraine

Capacity:
100kW / 394kWh
2 units of KAC50DP-BC197DE + EMS01D









Project Cases - Self Consumption

Location :

Verona, Italy

Capacity:

100kW / 100kWh

40kW on-grid inverter with KAC50DP-BC100DE







Project Cases - Self Consumption

Location :

Casaletto vaprio, Italy

Capacity:

100kW / 197kWh

2*KAC50DP-BC197DE

Project Cases - Self Consumption

Location :

Milk farm, Chernihivskyi region, v. Tarasa Shevchenka, Ukraine

Capacity:

200kW / 394kWh
2 units of 2*KAC50DP-BC197DE + STS250D











Project Cases - Self Consumption

Location :

Petrol station with car wash, Chromna, Poland

Capacity:

50kW / 100kWh
KAC50DP-BC100DE + STS100D







Project Cases - Self Consumption

Location :

Valladolid, Spain; Agrivoltaics with water pump and diesel generator

Capacity:

50kW / 100kWh
KAC50DP-BC100DE + STS100D



Project Cases - Self Consumption

Location :

Esztergom, Hungary

Capacity:

250kW / 500kWh
KAC50DP-BC100DE + STS100D
Continuous off-grid operation for regional blackouts
Stable power supply for Zen Temple
Zero export to grid







Project Cases - Self Consumption

Location :

Andalucía, Spain

Capacity:

100kW / 197kWh

2*KAC50DP-BC197DE

Reduce electricity bill for project owner





Project Cases - Self Consumption

Location :
Azerbaijan

Capacity:
100kW / 396kWh
2 units of KAC50DP-BC197DE + STS100D







Project Cases - Self Consumption

Location :

Bukovel ski-resort, Polianytsa, Ukraine

Capacity:

100kW / 197kWh

2*KAC50DP-BC197DE

Project Cases - Self Consumption

Location :
Brescia, Italy

Capacity:
50kW / 100kWh





Project Cases - Self Consumption

Location :

Factory and house mixed, Brescia, Italy

Capacity:

50kW / 100kWh

Mainly used for charging EV







Project Cases - Self Consumption

Location :
Lithuania

Capacity:
100kW, 197kWh
2*KAC50DP-BC197DE





Project Cases - Self Consumption (AC coupled)

Location :
Italy

Capacity:
50kW / 100kWh

Project Cases - Self Consumption

Location :
Badajoz, Spain

Capacity:
150kW / 300kWh (Retrofit)













Project Cases - Self Consumption

Location :

Gabrovo, Bulgaria

Capacity:

100kW / 197kWh

2*KAC50DP-BC197DE





Project Cases - Self Consumption

Location :

Magánkórház, Hungary (Hospital)

Capacity:

100kW / 200kWh
STS100 (on/off grid switching)



Project Cases - Self Consumption

Location :
Varna, Bulgaria

Capacity:
125kW / 215kWh
KAC125DH-BC215DE





Project Cases - Self Consumption

Location :
Westhoek, Netherlands

Capacity:
50kW / 100kWh







Project Cases - Self Consumption



Location :

Olive Oil Mill, Ignazia BN, Italy

Capacity:

50kW / 100kWh







Project Cases - Self Consumption

Location :

Kazanlak Kazanlyk, Bulgaria

Capacity:

50kW / 100kWh





Project Cases - Self Consumption

Location :

2*2kW AC Charge Stations, Turkey

Capacity:

50kW / 100kWh



Project Cases - Self Consumption

Location :

Dunavecse, Hungary

Capacity:

150kW / 300kWh



02

Case - Peak Shaving





Project Cases – Peak Shaving



Location :
Poland

Capacity:
50kW / 100kWh
BluE-20KT-M1*2 + KAC50-BC100DE + STS100D
STS100D integrates with diesel generator for off-grid backup
Weak grid causes voltage rise on high export and drops on high import
Battery charges during excess generation and discharges during peak grid demand

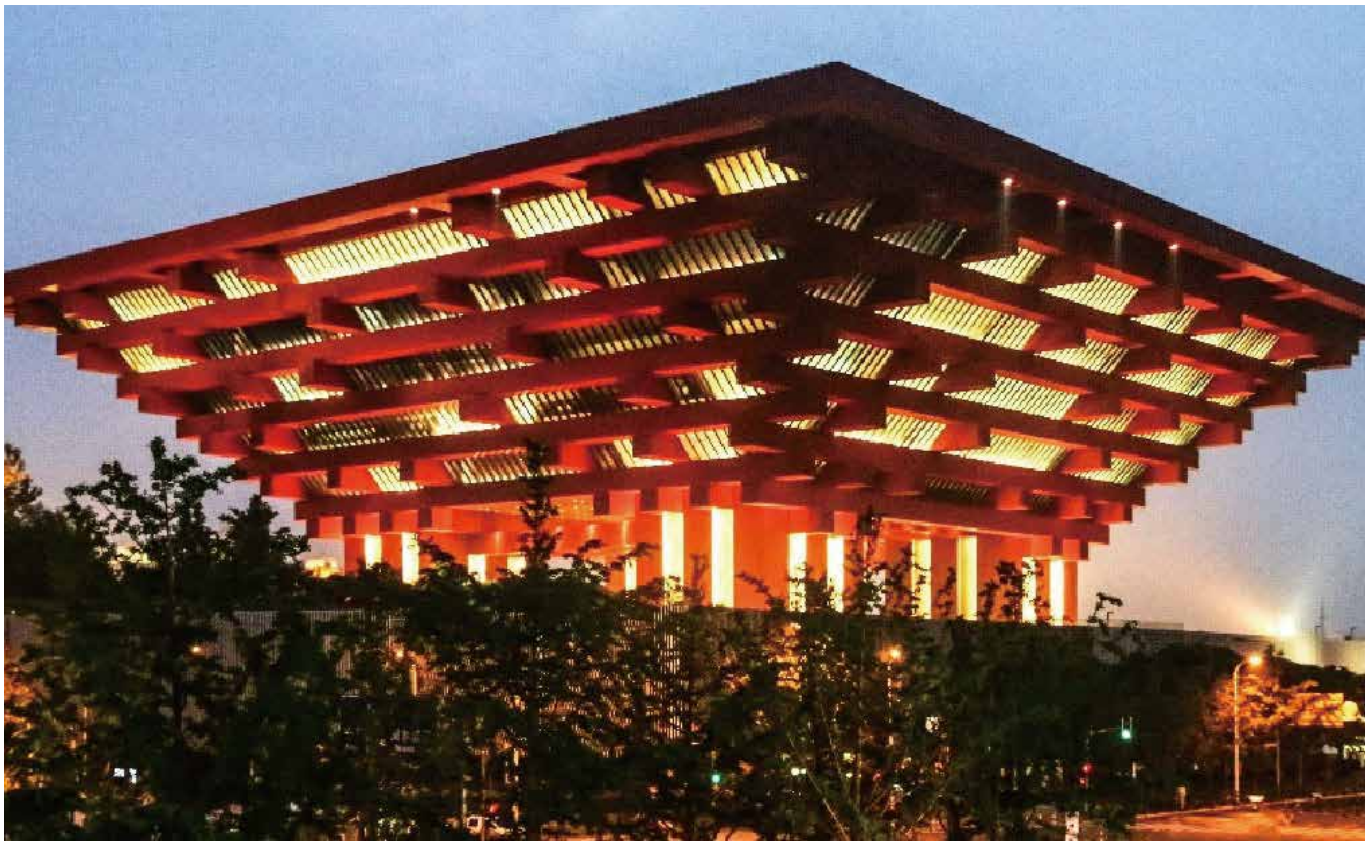


Project Cases - Peak Shaving

Location :
Žirovnica, Slovenia

Capacity:
50kW / 100kWh







Project Cases - Peak Shaving

Location :

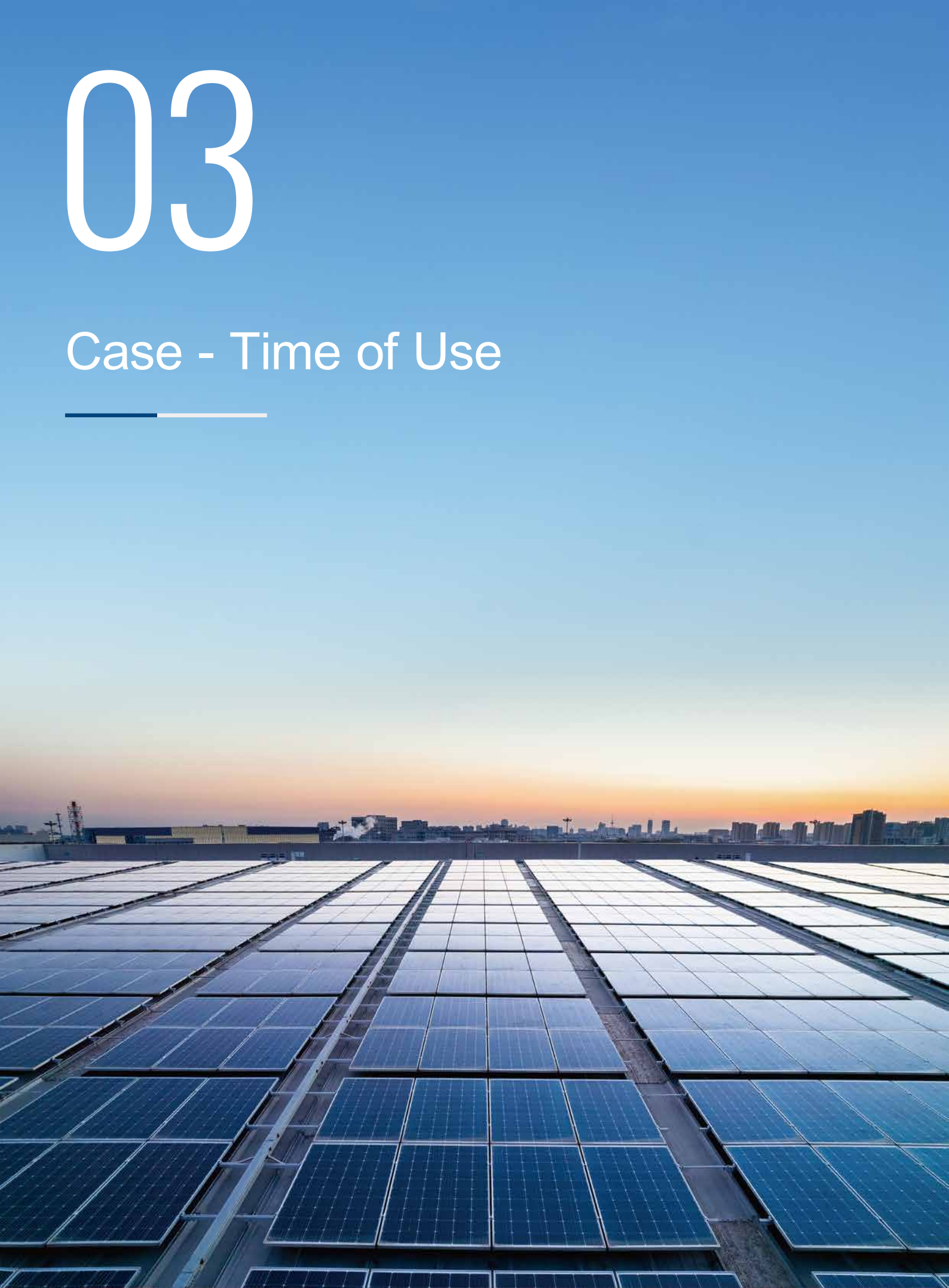
World Expo Park, Shanghai, China

Capacity:

50kW / 100kWh

03

Case - Time of Use







Project Cases – Time of Use

Location :

Rome, Italy

Capacity:

100kW / 400kWh
2 units KAC50DP, 4 units BC100DE
With 1 unit EMS01D



Project Cases – Time of Use

Location :
Chelmiec, Poland

Capacity:
50kW / 100kWh



04

Case - Dynamic Control







Project Cases – Dynamic Control

Location :
Radawa, Poland

Capacity:
150kW / 300kWh
Integrate with existing automatic systems in the facility





Project Cases – Dynamic Control

Location :
Poland

Capacity:
100kW / 300kWh
Integrate with existing automatic systems in the facility



Project Cases - Dynamic Control

Location :

Geldermalsen Apple Farm, Netherlands

Capacity:

200kW / 400kWh





Project Cases - Dynamic Control

Location :
Geldermalsen, Netherlands

Capacity:
250kW / 500kWh



Project Cases - Dynamic Control

Location :
Schiedam, Netherlands

Capacity:
150kW / 00kWh





Project Cases - Dynamic Control

Location :

Charging stations and restaurants on the highway, Hatvan, Hungary

Capacity:

50kW / 100kWh







Project Cases - Dynamic Control

Location :
Netherlands

Capacity:
150kW / 300kWh





Project Cases - Dynamic Control

Location :
Ospel, Netherlands

Capacity:
150kW / 300kWh



Project Cases - Dynamic Control

Location :
Cegled, Hungray

Capacity:
50kW / 100kWh







Project Cases - Dynamic Control

Location :
Vessem, Netherlands

Capacity:
100kW / 200kWh



Project Cases - Dynamic Control

Location :

Helmond, Netherlands

Capacity:

50kW / 100kWh