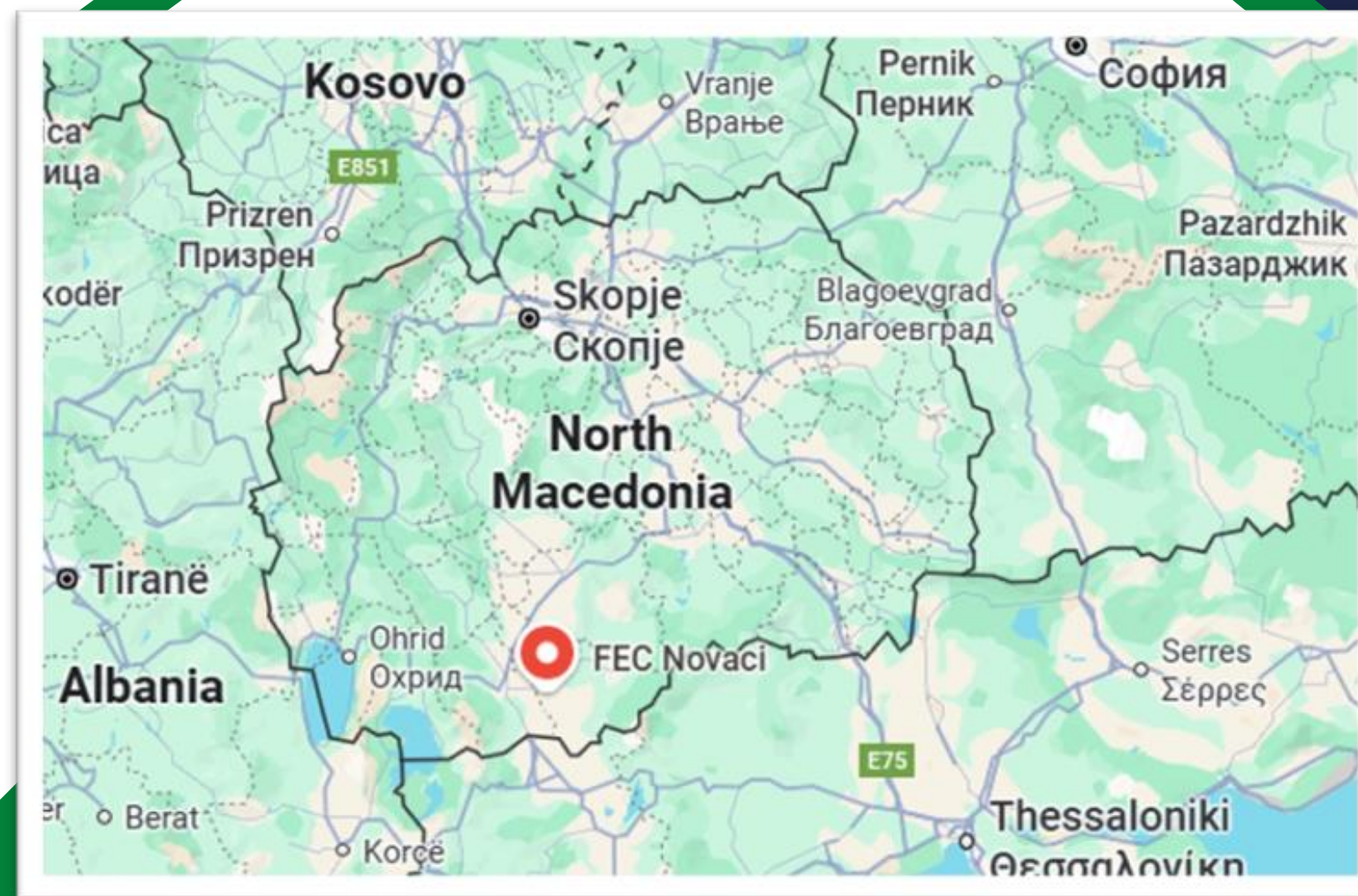


Introducing YESS Power's New BESS Project

“ **FEC NOVACI** ”

Presented by: Sedat Akar / GM

CEE Energy Storage Conference Warsaw
23 – 24 September 2025



STRATEGIC COLLABORATION FOR A LANDMARK PROJECT

- **Investor: Mey Energy / Skopje**
- Privately held company **founded in 2020** with a vision for a sustainable future
- Leading **renewable energy developer in North Macedonia**



STRATEGIC COLLABORATION FOR A LANDMARK PROJECT

- **In 2023**, the construction of **55 MW Photovoltaic Plant** – “FEC Novaci” completed and commissioned.
- “FEC Novaci” **is the first private photovoltaic plant**, which is also one of the largest of its kind in the Western Balkans. It is located in the **Municipality of Novaci** on a site with a total area of **57 hectares**



YESS POWER: INTEGRATOR OF ENERGY STORAGE

- YESS Power is a Energy Storage brand of Topkapi Endüstri, reflecting its innovative strength.
- Mission is to lead and transform the energy storage sector.
- Tailored Energy Storage Systems and Energy Management Solutions



TOPKAPI ENDÜSTRİ

- Topkapi Endustri is in energy business since 1985
- Over 40 years of experience in power plant installation, operation and maintenance

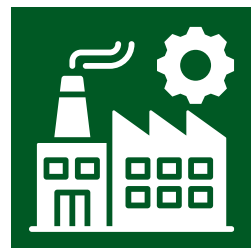


- Commissioned more than 150 power plants across Türkiye
- Various fuels, renewable gases, 1 GW Installed Power Output

MILESTONES ACHIEVED



BESS Supplier



Bloomberg NEF Top-Tier 1

Energy Storage Manufacturer
and integrator in China



5 GWh Global Deployment

450 BESS Plants



-  manufacturers that meet the highest standards for product quality, manufacturing capacity, and bankability, making them trusted suppliers for large-scale, finance-backed energy projects.

Project Snapshot:

NOVACI HYBRID ENERGY FACILITY



- **Location:** Novaci Municipality, North Macedonia
- Existing PV Plant: **55 MW** (commissioned in 2023)
- **Annual Electricity Production: 85,000 MWh**
- **Project Type: PV + BESS hybrid** infrastructure
- Battery Energy Storage System (BESS): **60 MWh** (commissioning planned in November 2025)
- **Regional Significance:** One of the **largest private PV + BESS** project in the Western Balkans

FUTURE DEVELOPMENT & REGIONAL OUTLOOK

Phase 1: 60 MWh BESS – Operational by end of 2025

Phase 2: Additional 40 MWh planned for 2026

Regional Strategy:

- YESS Power is actively developing BESS deployment strategies across the Balkans
- Strengthening regional energy infrastructure and storage capacity



TECHNICAL OVERVIEW

20C2H1600K

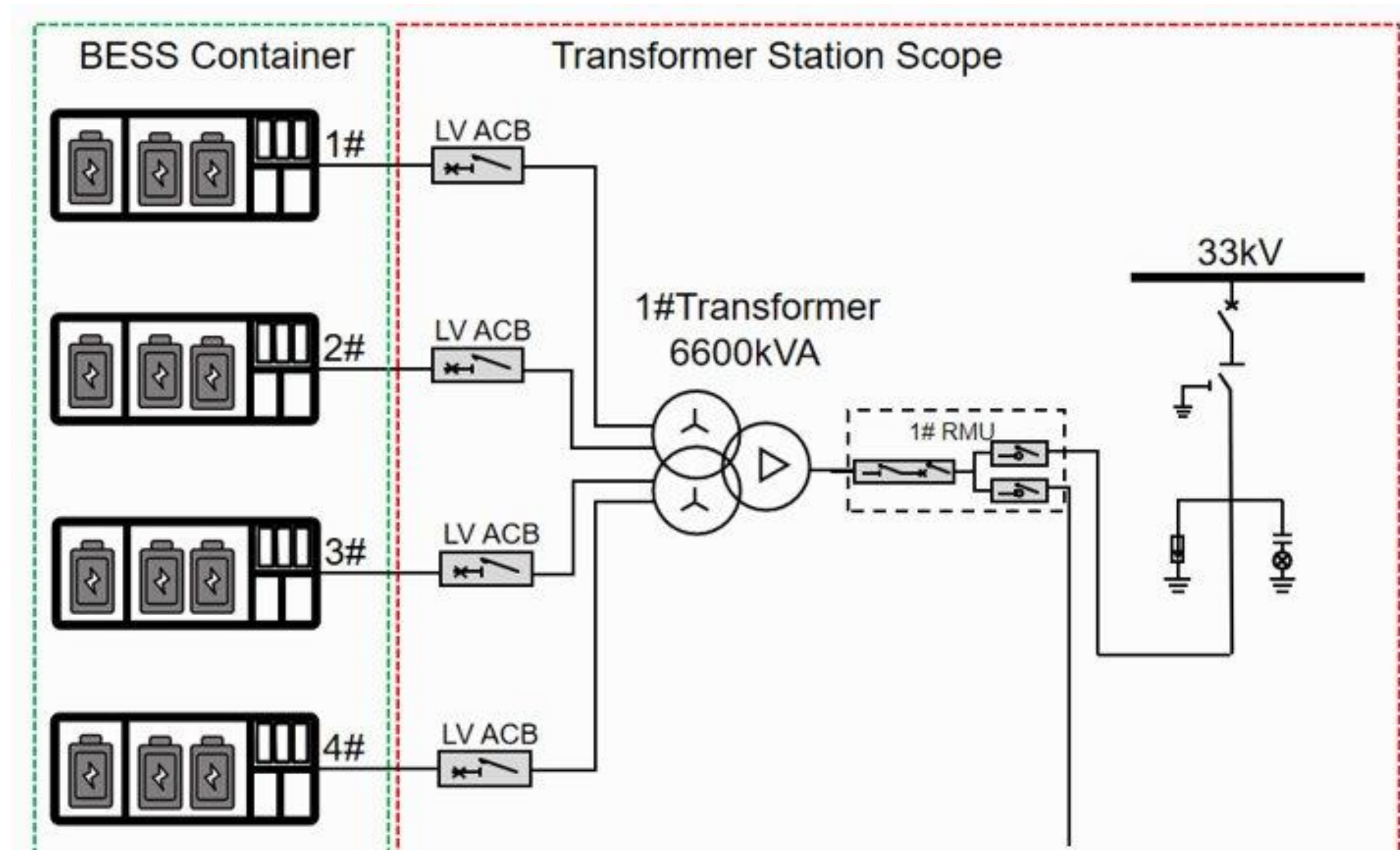
1,600kW / 3,086kWh
Rated power
derating to 1.500kW

20 units

Transformer Container

690V -> 33kV
6600kVA

5 units



TECHNICAL OVERVIEW



System Configuration	60MWh
Applications	On-grid, Frequency Regulation, Arbitrage
Battery Chemistry	Lithium Iron Phosphate (LFP)
Energy Capacity	60.16 MWh (DC Side), 56.52 MWh (AC Side)
Active Power	30 MW (0.5C)
Cycle Life	Avg. 1 cycle/day (max. 2/day)
Protection Rating	IP54

TECHNICAL OVERVIEW

Operating Temp.	-20°C to 50°C (max -30°C to 55°C)
Coupling Design	AC Coupling
Cooling	Liquid cooling (DC hatch)
Inverters	Cubenergy EH-0200-HA-M (8 units per ESS container)
Transformers	5 x 690V / 33kV in containers
Battery Containers	20 x Power Combo 20C2H1600K (690Vac output)



TECHNICAL OVERVIEW

- AC/DC all-in-one integrated design in one 20'HC, 1.500Vdc platform
- High efficiency unipolar conversion 3-level string PCS
- Intelligent temperature control: the temperature difference between liquid cooled PACK cells is less than 4°C
- Active balancing BMS, Pack and rack level optimization design



SYSTEM TOPOLOGY & ARCHITECTURE



Cell

- 314Ah
- 3,2V



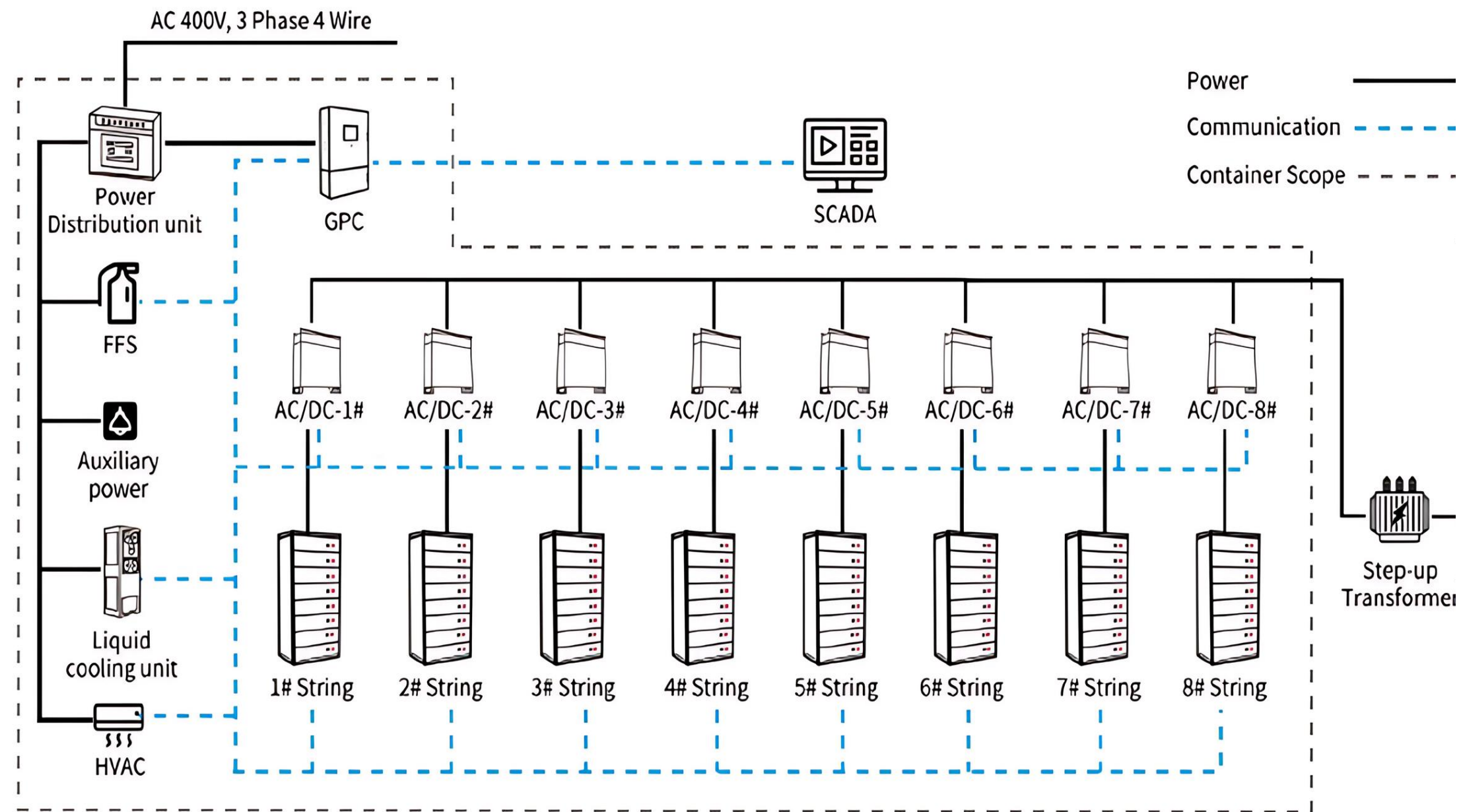
Battery Pack LP48

- 48 cells
- Liquid cooling



String LS385

- 8 battery packs



MV CONTAINER OVERVIEW

- **The main transformer** : Three-phase 0.69kV/33kV
- **RMU cabinet** : includes 2 x Load Switch Cabinet and 1 x Circuit Breaker Cabinet



- **Auxiliary Transformer**: to provide auxiliary power to the control systems
- **200 KVA**
- ISO 20'HC ~20 tons

SMART CONTROL WITH EMS ARCHITECTURE

- **Hierarchical and distributed system design**
- **Covers full process:** Data Collection → Processing → Application → Management
- Supports **real-time monitoring, control,** and coordination of new energy stations
- Applicable to: PV plants, charging stations, energy storage systems

Functional Modules:

- Configuration Interface
- SCADA
- Query
- Alarm Management
- Strategy Configuration
- Curves & Reports



INNOVATIVE SOLUTIONS

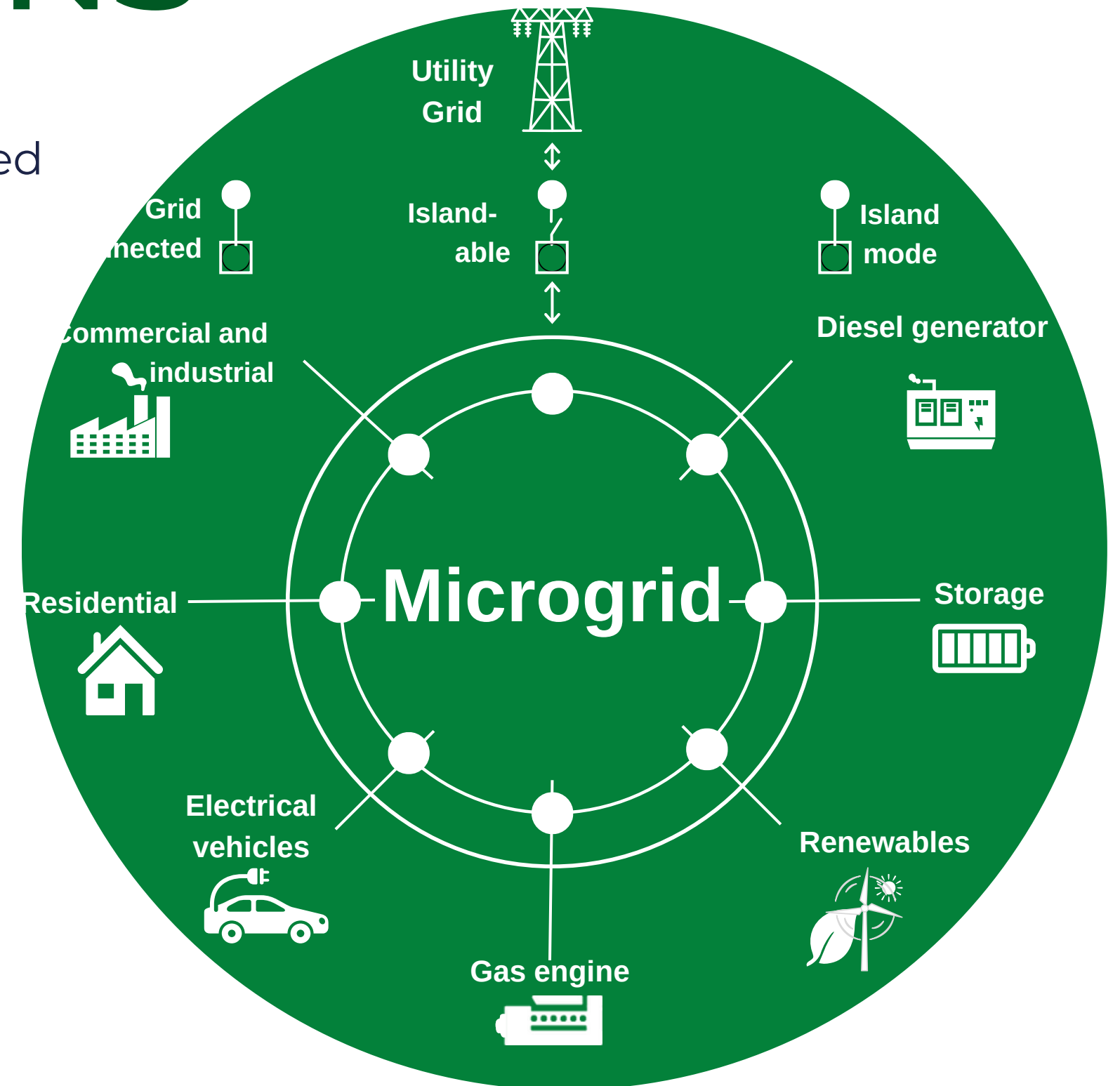
A microgrid is a localized power network that includes distributed energy sources, storage, and loads, capable of operating either connected to the main grid or independently in island mode

Advantages of Microgrids:

- Renewable Integration
- Peak Shaving
- Energy Arbitrage
- Power Reliability & Islanding
- Spinning Reserve
- Ancillary Services
- Optimized Self-Consumption



Commercial and industrial microgrid installations nearly doubled last year in EU





EMPOWERING THE FUTURE
WITH
YOUR ENERGY STORAGE SOLUTION

**THANK
YOU!**

Contact Information



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