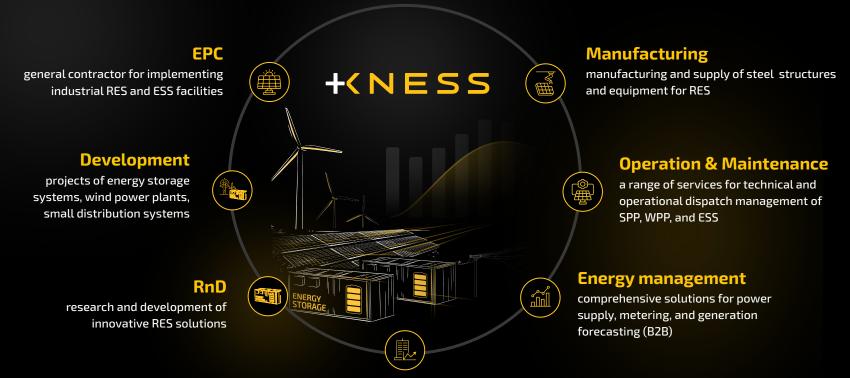


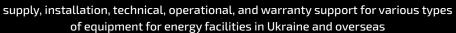
ABOUT KNESS

FULL SCOPE OF WORKS IN

RENEWABLE ENERGY



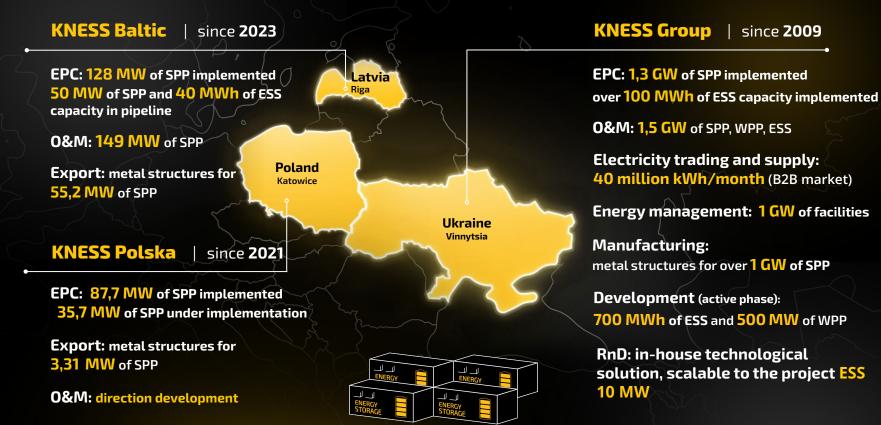
Trading House





KNESS | GEOGRAPHY OF BUSINESS ACTIVITIES





ENERGY STORAGE SYSTEM PARKS

+<NESS



PROJECTS DEVELOPMENT

500 MW of WPP in active development stage

End of 2026 — Ready to build





700 MWh of ESS capacity in active development stage

235 MWh of ESS capacity — at the stage of equipment supply and implementation

until 2027

1 GWh of ESS capacity to the RTB stage



+(NESS

ENERGY STORAGE SYSTEM

INVESTMENT PROJECT

construction of energy storage system **(ESS) Vinnytska** with installed capacity **72 MW** for the energy trading in the electricity market of Ukraine



PROJECT VALUE PROPOSITION



Investment indicators of Private Investor

Investment Asset:	Energy Storage System (ESS) Vinnytska
Installed Capacity:	72 MW
Location:	Komariv village council, Vinnytsia region
Connection Point:	Substation 750 kV "Humenne" NPC Ukrenergo

Total Investment :	€47,0M	
DEVEX	€3,1M	
CAPEX	€36,6M	
• VAT	€7,3M	
	Basic	Optimized
IRR (EUR)	10,3%	29,0%
NPV (EUR), for a 10-year period	12,5M	59,5M
DPP (operation period)	6,3 years	3,8 years

Scope of works by KNESS





READY TO BUILD | March 2026

- Site Selection. Feasibility study
- Obtaining technical conditions for connection
- Design works
- Obtaining a construction permit



FULL EPC | October 2026

- ESS construction
- Pre-commissioning and testing
- Commissioning



LICENSING | December 2026

- License obtaining
- Acquiring the status of market participant



ASSET MANAGEMENT

- Commercial: effective operational energy management
- Financial: financial and economic, legal management
- **Technical**: technical maintenance and operational management of ESS

ESS OPERATION MODELS

Basic model

Passive management of the ESS

- SPP sells electricity on the DAM according to the day-ahead forecasts.
- SPP imbalances are sold through the balancing group.
- ESS purchases electricity on the DAM during 4 hours with minimum prices and sells - during 4 hours with maximum prices.
- The hours of purchase and sale are determined based on the analysis of the average monthly hourly retrospective prices for the last year.
- There is almost no conflict between the energy generation of SPP and ESS, since the maximum hours of SPP operation are usually accompanied by low prices on the DAM and do not involve the energy resale from the ESS..
- The model does not require active management, complex predictive models, and generates a clear and achievable result with low risk.

Optimized model KNESS

Active expert management of the ESS

- SPP sells electricity according to a day-ahead forecast optimized for imbalances ESS purchases/sells electricity on various markets (DAM,IDM, BM), and also participates in the imbalances settlement of the SPP.
- The imbalances of the hybrid SPP-ESS facility are settled within a balancing group.
- The model requires active hourly professional management by a trader, but generates maximum financial results.

EPC + AM

- Supply of the main equipment (ESS and PCS);
- Commissioning;
- Commercial asset management:
- Full management of the purchase and sale of electricity;
- Activations on the balancing market;
- Imbalance settlement and commercial accounting of electricity (provides a guarantee of a minimum financial result at the level of the basic operating model and a bonus of 20% of the excess of the financial result over the basic guaranteed one).

• Technical asset management:

- Full scope of maintenance, operational and dispatch management services;
- Planned and preventive repairs;
- + Elimination of technological failures;
- Security services;
- Spare parts management (provides a guarantee of the facility's functional suitability coefficient).

ESS OPERATION MODELS

Basic model

Passive management of the ESS

- ESS purchases electricity on the DAM during 4 hours with minimum prices and sells - during 4 hours with maximum prices.
- The hours of purchase and sale are determined based on the analysis of the average monthly hourly retrospective prices for the last year.
- The model does not require active management, complex predictive models, and generates a clear and achievable result with low risk.

Optimized model KNESS

Active expert management of the ESS

- ESS purchases/sells electricity on various markets (DAM,IDM, BM)..
- The imbalances of the ESS facility are settled within a balancing group.
- The model requires active hourly professional management by a trader, but generates maximum financial results.

EPC + AM

- Supply of the main equipment (ESS and PCS);
- Commissioning;
- Commercial asset management:
- Full management of the purchase and sale of electricity;
- Activations on the balancing market;
- Imbalance settlement and commercial accounting of electricity (provides a guarantee of a minimum financial result at the level of the basic operating model and a bonus of 20% of the excess of the financial result over the basic guaranteed one).

• Technical asset management:

- Full scope of maintenance, operational and dispatch management services;
- Planned and preventive repairs;
- + Elimination of technological failures;
- Security services;
- Spare parts management (provides a guarantee of the facility's functional suitability coefficient).

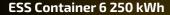
TECHNICAL SPECIFICATIONS OF ESS AND PCS

The most mature and advanced energy storage technology is **lithium iron phosphate (LFP) batteries**. This technology provides **up to 11,000** nominal charge-discharge **cycles**.

Basically, ESS is a set of battery clusters assembled in parallel in the form factor of a standard 20-foot container (module) with liquid cooling. Each container is connected through a bidirectional conversion system (PCS) or a group of two PCS connected in parallel and a separate 0.55 (0.69) / 10 kV power transformer.

The scope of main equipment:

Unit capacity ESS, kWh	6 250
Quantity of containers, pcs	48
Total capacity of ESS, kWh	300 00
Unit capacity of Power Conversion System (PCS), kW	1500
Quantity of PCS, pcs	48
Total capacity of PCS. kW	72 000



Type HiTHIUM LFP 1175-4*1P416S

Manufacturer : Xiamen HiTHIUM Energy Storage Technology Co., Ltd.

Nominal capacity, kWh 6250

Voltage DC, V 1040 - 1500 Type of battery cells LFP, 1175Ah

Dimensions, mm 6058 × 2438 × 2896

Weight, kg 48 000

HTHIUM

O HTHIUM

Hithium guarantees a residual capacity of at least 65,0% of the initial state for the 25th year of operation, subject to an average intensity of use of 1 cycle per day with a power not exceeding 25% of the nominal (0.25P).

Bidirectional Power Conversion System AC/DC (PCS)

 Type
 PCS-9567TU-1575

 Manufacturer
 NR Electric Co, Ltd

 Capacity, kW
 1 575

 Nominal voltage AC, V
 630

 Efficiency
 99 %

 Dimensions, mm
 860 x 2270 x 1725

 Weight, kg
 1 500



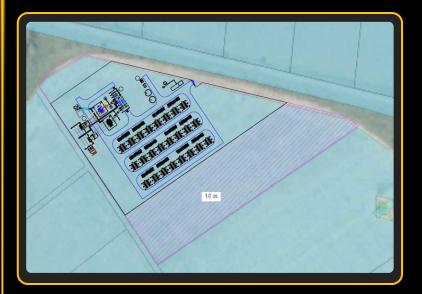
PROJECT LAYOUT

The project envisages the construction of a 72 MW / 300 MWh Energy Storage System.

48 ESS containers of 6.25 MWh manufactured by HiTHIUM and 48 pcs. of 1575 kW PCSs manufactured by NR Electric are being installed at the construction site.

To collect capacity on the ESS land plot, it is planned to construct a 110/10 kV substation with two 40 MVA power transformers. This substation will be connected by an approximately 0.5 km long 110 kV cable to the Switchgear 110 kV of the 750/330/110 kV Substation 'Vinnytska' (owned by NPC 'Ukrenergo')."

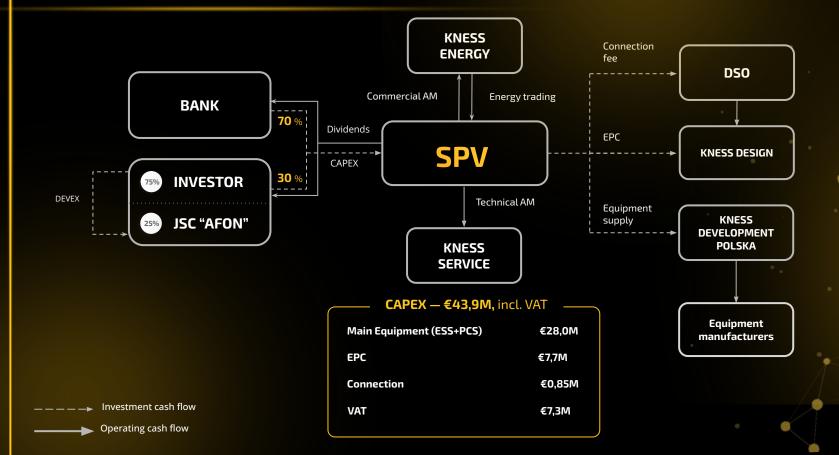
The construction of a new additional 110 kV switchgear is planned at the 750/330/110 kV Substation 'Vinnytska."





Project Layout Site Plan

CORPORATE AND INVESTMENT STRUCTURE OF THE PROJECT



+<NESS

Tetiana Petrovska

Chief Marketing Officer



+380 67 430 59 86



petrovska_ty@kness.energy



kness.energy

