Annex No. 1 to the Terms and Conditions for the Provision of the "ENNO-EMS" Application Usage Service by Ennovation Technology Sp. z o.o.

ENNO-EMS Package Price List
Effective as of May 1, 2025

1. ENNO-EMS Package Price List

L.p.	Service / Package	Detailed Description	Billing Period	Price PLN, net
1.	Basic Package	Device integration, self-consumption, peak shaving, load balancing, reactive power compensation, zero export	Month	490
2.	Advanced Package	Device integration, self-consumption, peak shaving, load balancing, reactive power compensation, zero export + price arbitrage, capacity market	Month	690
3.	Premium Package	Device integration, self-consumption, peak shaving, load balancing, reactive power compensation, zero export, price arbitrage, capacity market + balancing services	Month	990
4.	Weather Forecasting	Weather Forecasting	Month	100
5.	Activation Fee	EMS Activation Fee for a single account representing one location, with access for up to 10 users	One time	300
6.	Commission Fee	No commission Fee	-	-

A Package refers to the service of a single location using one EMS controller. Under one package, access may be granted to up to 10 users assigned to that location.

2. Service Description

The Service Description refers to the version available on the website https://ennovationtech.eu/en/ems-energy-management-system/. The EMS Application is optimized for use in both web and mobile versions for businesses and offers all essential functions in appropriately adapted formats. Functions that require optimization for larger screens (e.g., complex diagrams or data export) may not be available in the mobile application.

Below is a description of the differences between the available functions in the selected packages.

Functionality	**Basic Package**	**Advanced Package** Recommended for installations with capacity >200 kW	**Premium Package** Recommended for installations with capacity >1 MW
Full real-time control and historical data analysis	●	●	●
Production and revenue forecasting		●	●
Management of distributed energy sources (aggregator functionality)		●	●
Energy security assistant	●	●	●
Integration with external data sources			●
Security	●	●	●
Cybersecurity	●	●	●
Support for virtual prosumers			●
Reporting and analytics		●	●
Automation and control			●
Responsibility for electric vehicle (EV) charging infrastructure			●
Advanced energy management	●	●	●
Account and operational security management		●	●
Daily data storage for 12 months	●	●	●
Daily data storage for 24 months	●	●	●
Daily data storage for 60 months		●	●
Daily data storage for 120 months			●
TARIFFS			
Profitability analysis[1)]		●	●
Overview of revenues and costs [1)]		●	●
Energy cost assistant *Automated, optimized operation of the installation, including the energy storage system, based on flexible energy tariffs*			●
Inclusion of flexible energy tariffs[4)] *Clear visualization of daily flexible energy tariffs*			●
ALGORITHMS			
Zero export mode	●	●	●
Scheduled operation mode		●	●
Savings mode with forecasting		●	●
Off-grid mode	●	●	●
Peak shaving mode	●	●	●
Load balancing	●	●	●
Energy trading (price arbitrage)		●	●
Emergency power supply		●	●

Reactive power compensation	●		●
Guaranteed power supply mode – uninterruptible power			●
Frequency regulation			●
Voltage regulation			●
TECHNICAL SUPPORT			
Support within 3 business days	●	●	
24/7 support			●

EXPLANATIONS

The functionality can only be implemented if information regarding the commercial terms and energy tariff has been provided, and only if the installation includes metering devices capable of measuring energy flow throughout the entire installation and enabling energy balancing.

If integration with an advanced weather tool is required, it is possible to integrate the EMS system with the selected tool. In such cases, the client must indicate the specific tool and provide contact details for the relevant entity to facilitate technical arrangements.

Currently available for installations in the following countries:
Belgium, Cyprus, Denmark, Germany, Estonia, Spain, France, Croatia, Italy, Luxembourg, Lithuania, Hungary, Netherlands, Norway, Austria, Poland, Romania, Finland, Sweden, Switzerland, Bulgaria, Ukraine.

Availability of dynamic tariff support must be confirmed by the manufacturer prior to purchasing the given functionality.

3. Detailed Descriptions of Functionalities

3.1 Full Real-Time Control and Historical Data Analysis

With the monitoring and data analysis feature in the ENNO-EMS system, the user gains full insight into the operation of their energy installation—both in real-time and historically. The system collects data from key devices (e.g., batteries, inverters, meters) and presents it in a clear format, enabling both immediate and long-term decision-making.

This enables:

- Real-time response to changes in operating parameters such as power, voltage, or energy flows.
- Identification of losses and inefficiencies, leading to tangible savings and system optimization.

3.2 Production and Revenue Forecasting

Through the ENNO-EMS software, the user gains access to forecasts of energy production as well as revenues and savings. The system analyzes historical data, current consumption, and market prices, and then estimates the profitability of operating the PV installation and energy storage system.

This enables:

- Planning of charging and discharging strategies for the storage system based on projected future energy prices.

- Making data-driven operational decisions in advance, rather than relying on guesswork.

3.3 Management of Distributed Energy Resources as an Aggregator

ENNO-EMS is a system that aggregates various energy generation and consumption units, as well as energy storage owners/locations, managing them as a single entity to optimize costs, increase energy efficiency, and facilitate participation in the energy market.

Benefits of energy aggregation:

- **Cost optimization**: Aggregation can help reduce energy costs for prosumers and producers.
- **Support for system stability**: Aggregation assists in stabilizing the energy system by managing demand and supply.
- **Facilitated energy sales**: Aggregation can simplify the sale of energy generated from renewable sources, particularly for prosumers.
- **Greater flexibility**: Aggregation enables better energy management and alignment with specific needs.

3.4 Energy Security Assistant

ENNO-EMS enhances the resilience of a facility against power outages by automatically responding to weather warnings. The system monitors meteorological alerts and, in the event of risk, proactively begins charging the energy storage system.

This enables:

- Protection of critical loads in the event of blackouts.
- Continuity of operations without the need for manual intervention.

3.5 Integration with External Data Sources

Through integration with external data sources, the EMS system enhances its performance with up-to-date market information and technical data from external systems. The system retrieves, among other things, energy prices from the Polish Power Exchange (TGE), forecasts for energy demand and renewable energy production, and data from SCADA systems, enabling precise alignment of energy management strategies with changing conditions. ENNO-EMS also communicates with telemetry systems, continuously monitoring and interfacing with the distribution system operator.

This enables:

- Informed decisions regarding energy purchasing, selling, or storage based on market forecasts.
- Automatic adjustment of system operation to external conditions—without manual intervention.

3.6 Safety

Thanks to the safety module, the ENNO-EMS system not only manages energy but also actively monitors the technical condition of the installation. The system analyzes battery health (State of Health – SOH), charge level (State of Charge – SOC), and continuously detects overloads, failures, and other irregularities.

This enables:

- Immediate response to potential threats before they affect system performance.

- High reliability and safety of the installation through automated alerts and protection mechanisms.

3.7 Cybersecurity

The ENNO-EMS system complies with cybersecurity requirements, meeting the standards for connection to critical infrastructure.
The devices comply with the following standards:

- **IEC 62351** – Security in low and medium voltage networks

And the solutions are compliant with:

- **NERC CIP** – Protection of critical infrastructure in energy systems
- **EU NIS2 Directive** – Regarding the security of infrastructure/enterprises
- **ISO/IEC 27001** – Information security management

3.8 Support for Virtual Prosumers

Virtual prosumer support allows the use of renewable energy without the need to own a personal PV installation. For example, a user in Gdańsk can benefit from renewable energy located in Warsaw. The energy is settled through the electricity bill, and the consumer gains savings and participates in the energy transition—without the need to install panels on their own property.

- Enables the use of renewable energy without owning a personal installation
- Provides access to green energy regardless of the user's location
- Ideal for apartment residents or those without technical capabilities

3.9 Reporting and Analytics

The ENNO-EMS system enables comprehensive energy analysis and full reporting, supporting business owners and installation operators in making informed business decisions.
With access to real-time data and archived parameters, users can monitor system performance and plan optimization actions.

The system offers, among other things:

- Generation of energy consumption and financial savings reports
- Comparison of energy efficiency on a weekly, monthly, and seasonal basis
- Monitoring of KPIs for real-time system performance evaluation
- Real-time analysis of PV installation and energy storage performance
- Flexible user and measurement variable management
- Remote access to data – including across multiple locations simultaneously

3.10 Automation and Control

The ENNO-EMS system enables automated and remote control of energy processes, relieving businesses and installation operators from managing infrastructure manually. The algorithm handles it automatically while reducing costs.

The system offers, among other things:

- Scheduling system operations – for charging, discharging, and power source selection (grid/PV)
- Remote control and device configuration via the application or web interface
- Automatic switching of power sources in emergency situations – operating in UPS mode without user intervention

3.11 Responsibility for Electric Vehicle (EV) Charging Infrastructure

The ENNO-EMS system supports comprehensive management of electric vehicle (EV) charging infrastructure.

The system offers, among other things:

- Real-time monitoring of technical status and availability of EV chargers
- Dynamic power allocation to individual charging points based on current demand and available energy
- Remote control of the charging process – e.g., based on energy prices, schedules, or energy storage levels

3.12 Advanced Energy Management

The ENNO-EMS system provides intelligent energy management, allowing users to maximize savings and efficiency through data-driven and forecast-based automation.

The system offers, among other things:

- Advanced algorithms that optimize energy flow between the grid, photovoltaics, energy storage systems, and EV chargers
- Automatic adjustment of energy consumption based on weather forecasts and dynamic tariffs
- Seamless switching between operating modes (e.g., power from the grid, PV, or batteries) based on cost-effectiveness and energy availability

3.13 Account and Operational Security Management

- Hierarchical permission assignment based on roles and responsibilities
- User activity monitoring through detailed system logs

4.Detailed Descriptions of Algorithms

4.1 Zero Export Mode

The **Zero Export Mode** allows the energy system to operate entirely locally—without feeding excess energy into the grid.
Zero Export means that any surplus energy generated is not exported to the grid. Instead, the system charges the energy storage, activates devices (e.g., EV chargers, heating elements), or limits production when necessary.

Benefits: Enables the installation of larger photovoltaic systems, improves self-consumption, and ensures full compliance with the issued grid connection conditions—all while maintaining zero grid feed-in and controlled energy export.

4.2 Scheduled Operation Mode

The **Scheduled Operation Mode** allows for precise energy flow management at the point of energy consumption (PPE) by setting a predefined profile for each day of the week.
This mode enables you to define the maximum amount of energy that can be exported to the grid. If PV production exceeds consumption and storage capacity, the system limits export, for example, by reducing the installation's output or activating local loads (e.g., EV chargers, heat pumps), in order to maintain the predefined profile at the point of energy consumption.

Benefits: Maximizes use of local energy, enables power consumption to be adjusted to the contracted capacity limits, and complies with the requirements of the distribution system operator—guaranteeing avoidance of penalties for exceeding contracted power levels.

4.3 Cost-Saving Mode with Forecasting

The **Cost-Saving Mode** enables intelligent energy management based on dynamic pricing and PV production forecasts—all aimed at minimizing energy costs.

- **Price management with TGE** – The system analyzes real-time energy prices from European energy exchanges. It charges the battery when energy is cheap and reduces grid consumption when prices are high.
- **PV production forecasting** – Integration with weather forecasts allows the system to anticipate solar energy production. On predicted sunny days, it forecasts the required available storage capacity, manages charging and discharging accordingly, and minimizes grid consumption during later hours.
- **Consumption optimization** – The system schedules the operation of devices to use energy when it is cheapest or available from local sources (PV, wind turbines, biogas plants).

Benefits: Real cost savings, greater operational efficiency, and reduced grid load—all through automatic adjustment of consumption to market and weather conditions.

4.4 Off-Grid Mode

The **Off-Grid Mode** enables the energy system to operate entirely independently from the external grid—ensuring continuous power supply and protection during emergencies.

- **Energy island (off-grid)** – The system manages local sources (PV, energy storage, generator), allowing the facility to operate without grid access—for example, in remote or grid-unstable locations.
- **Grid outage response** – The system automatically switches to battery power in the event of a grid voltage drop, maintaining operation of critical devices until grid power is restored.
- **Generator integration** – If the battery charge level drops below a defined threshold, the system activates a generator, either taking over the power supply or supporting the batteries in hybrid mode.

Benefits: Independence from the power grid, assured power supply, high reliability, full equipment protection, and the ability to power essential loads even during extended grid outages.

4.5 Peak Shaving Mode

The **Peak Shaving** function flattens the energy consumption profile by eliminating momentary power spikes, which helps reduce distribution charges: fixed and variable capacity fees. The system automatically manages energy flow from the energy storage or PV to balance the consumption profile at the point of energy delivery (PPE).

- **Lower costs** – Reduction of distribution charges
- **Stability and efficiency** – Reduced strain on the grid and better battery utilization

Benefits: Lower energy bills, more predictable consumption, and increased energy efficiency—particularly important for businesses and facilities with high energy usage.

4.6 Load Balancing

The **Load Balancing** function evenly distributes the energy load over the course of the day so that energy consumption at the point of energy delivery (PPE) remains consistent, regardless of actual demand and device power requirements.

Benefits: Lower energy bills, reduced distribution charges, and prevention of grid overloads.

4.7 Energy Trading (Price Arbitrage)

Energy arbitrage involves taking advantage of differences in energy prices across different periods or markets to generate profit. It is a strategy where energy is purchased when prices are low and sold when prices are higher. Decisions on when to buy or sell energy are based on data from the energy exchange and a price forecasting model.

Benefits: Opportunity to earn revenue from energy sales and to optimize energy costs.

4.8 Emergency Power Supply

In the event of a power outage from the electrical grid, the energy storage system takes over the power supply. The energy storage maintains a set minimum charge level below which it cannot discharge, serving as a reserved backup in case of a grid outage.

- **Integration with a generator** – When the energy storage is depleted in guaranteed power mode, the system activates the generator to take over the power supply or recharge the battery.
- **Integration with a fuel cell** – When the energy storage is depleted in guaranteed power mode, the system activates the fuel cell.

Benefits: Avoids power interruptions and ensures operational stability for the business.

4.9 Reactive Power Compensation

The energy storage system dynamically compensates for reactive power based on measurements taken at the point of energy delivery (PPE), so that the infrastructure does not generate reactive power from the perspective of the power grid. This minimizes both energy losses and quality degradation.

Benefits: Avoids penalties and charges related to reactive power generation. With dynamic compensation via energy storage, even in cases of production line upgrades or equipment replacement, additional costs for replacing static compensators are avoided.

4.10 Guaranteed Power Supply Mode – Uninterruptible Power Supply

In situations where guaranteed power is required—meaning electronic devices must operate continuously even during a grid outage—energy storage systems with contactless switches provide the solution. The EMS system controls the devices and ensures a switching time of as little as 4 ms, performing the function of a UPS.

Benefits: A solution designed for critical infrastructure such as hospitals, strategic and public facilities, with dual independent power sources and automatic transfer switch (ATS). Uninterruptible power supply ensures continuous operation of electrical equipment.
ENNO-EMS also allows integration of power sources such as PV installations and generators with existing dual-supply systems equipped with automatic switching to backup.

4.11 Frequency Regulation

Increases or decreases in grid power supply must be proportional to frequency deviations when the frequency moves outside the 49.99 Hz to 50.01 Hz range. The full primary control range spans from 49.8 to 50.2 Hz. The objective of energy storage operation is to maintain correct frequency, which affects the performance of powered devices, ensuring, for example, a stable production process.

Benefits: Proper operation of powered devices and operational stability of the business.

4.12 Voltage Regulation

Voltage regulation using energy storage involves stabilizing grid voltage, e.g., in cases of overvoltage caused by PV system overproduction. The energy storage system absorbs energy when grid voltage is too high and releases it when the voltage drops too low.

Purpose of voltage regulation:

- **Maintain permissible voltage range:** Prevent equipment failures and ensure stable system operation.
- **Stable voltage:** Energy storage systems help stabilize grid voltage, even during sudden changes in production or load.
- **More efficient energy use:** Storing excess energy enables more effective use of PV system production.
- **Device protection:** Stable voltage helps protect electrical equipment from damage.

Utrzymanie stabilnego napięcia: Magazyny energii pomagają w stabilizacji napięcia sieci, nawet w przypadku nagłych zmian w produkcji energii lub obciążeniu.

Efektywniejsze wykorzystanie energii: Magazynowanie nadmiaru energii pozwala na efektywniejsze wykorzystanie energii produkowanej przez instalację fotowoltaiczną.

Ochrona urządzeń: Utrzymanie stabilnego napięcia chroni urządzenia elektryczne przed uszkodzeniami.