FEMS App Multi-Use

Version:2026.7.1

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1. Introduction

Dear customer,

Thank you for choosing the "FEMS App Multi-Use". You are welcome to send us your suggestions so that we can further improve the quality of our products.

2. Description

FEMS App Multi-Use combines functions of the energy storage system with those of various FEMS Apps. FENECON GmbH selects and configures the FEMS Apps according to customer requirements. The **FEMS App Multi-Use is designed for industrial applications** and offers a flexible solution for integrating energy storage systems into complex energy management systems—it can even be described as the “Swiss Army knife of FEMS Apps.”

The following FEMS Apps can be combined:

- Self-Consumption Optimization
- Peak Shaving
- Manual Charging and Discharging

FEMS App Multi-Use is compatible with the following FENECON systems:

System	Compatibility
FENECON Industrial S	☑
FENECON Industrial M (452-904)	☑
FENECON Industrial L	☑

System	Compatibility
FENECON Industrial XL	☑

2.1. Use cases

Click on the text to expand it.

Case Study — Foundry

Background:

- Annual electricity consumption: 2,400 MWh

  Monday–Friday: 500–700 kW melting processes

  Weekends: 100–120 kW base load

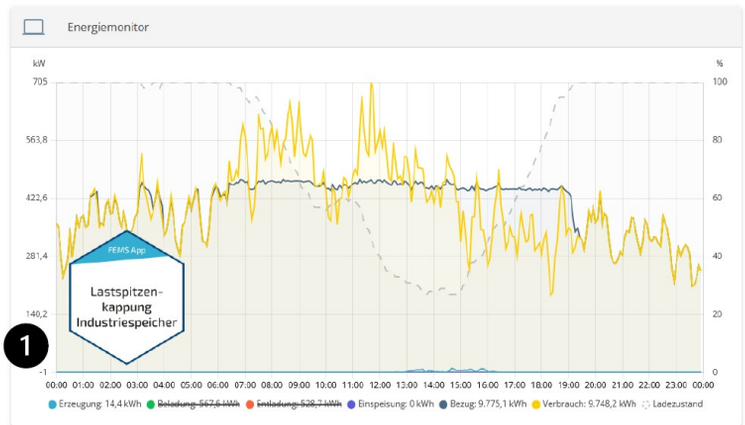
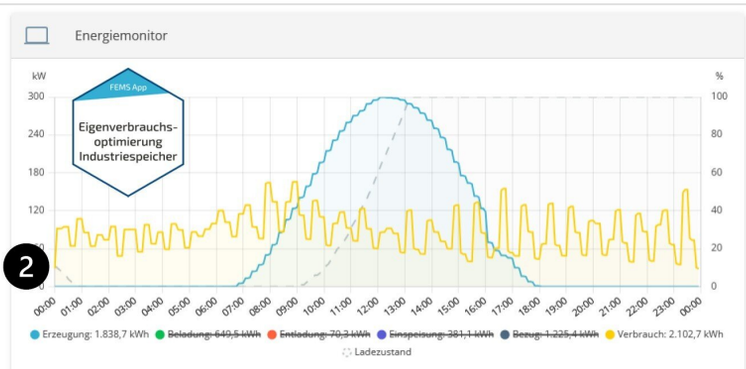
  Employee vehicle charging with 8 charging points
- 1,000 kW grid connection
- 450 kWp rooftop PV system
- System: FENECON Industrial M 368 kW/656 kWh

  Behind-the-Meter system for energy cost optimization

Challenges:

1. **Business day**: Peak loads have a particularly costly impact on electricity bills.
2. **Weekend**: Solar power is subject to lower remuneration and is fed into the grid.

Solution:

1. **Weekday**: Peak Shaving Peak Shaving to 450 kW grid withdrawal (black)	
2. **Weekend**: Self-Consumption Optimization 656 kWh from the PV system secured for weekend operations	

Automatic Operation: Multi-Use with FEMS

- Optimal utilization of the energy storage system
- Greater savings through the combination of standard applications

  Reduction of peak loads by 250 kW

  Increase in the self-consumption rate to 95%
- One-time setup, automatic operation

Case Study — Co-location Without Operating Electricity Costs

Background & Challenges:	**Amortization**
• Solar farm (10 MW) with a large grid connection point (8 MW) • Energy storage facility (8 MW | 14 MWh) for arbitrage trading • Operating power must be purchased at a high cost from the grid	• Solar farm + Energy storage facility: 3–5 years • Industrial M for operational electricity: 2–3 years

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*Goal: Operational electricity bill = € 0*
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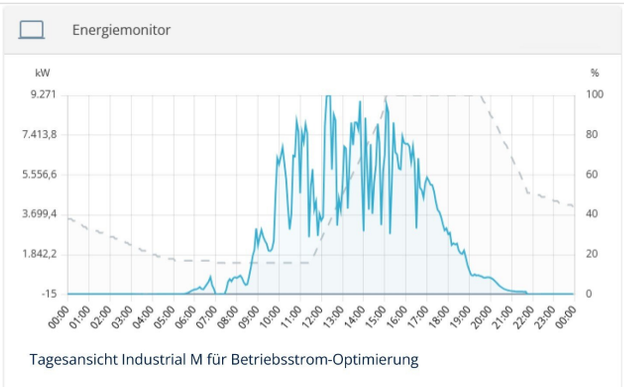
An auxiliary electrical energy storage system that charges slowly during the midday peak and shifts this energy to nighttime hours, when transformer losses occur and the facility's cooling systems are running. At the same time, the electrical energy storage system feeds its "remaining" energy into the grid during the expensive evening hours.

Solution: Industrial M with Multi-Use

- At night, the system automatically discharges to meet consumption.
- During the day, the customer can create recurring SmartEvents at any time to ensure optimal driving.



Tagesansicht Industrial M für Betriebsstrom-Optimierung

3. Bedienung

Klicken Sie auf den Seitenmenü-Chip *Speichersystem* und dann auf den Chip *Serieller Multi-Use*, um eine Übersicht über die festgelegten Aufgaben des Speichersystems zu erhalten:

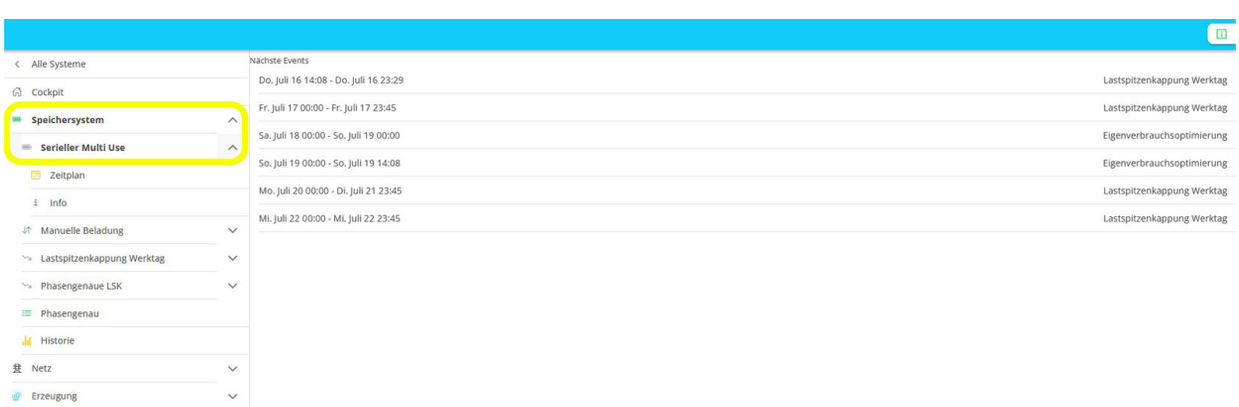


Figure 1. Übersicht der Aufgaben des Speichersystems

Um die Aufgaben des Speichersystems zu bearbeiten, klicken Sie auf den Chip *Zeitplan*. Sie erhalten im Hauptfenster folgende Übersicht:

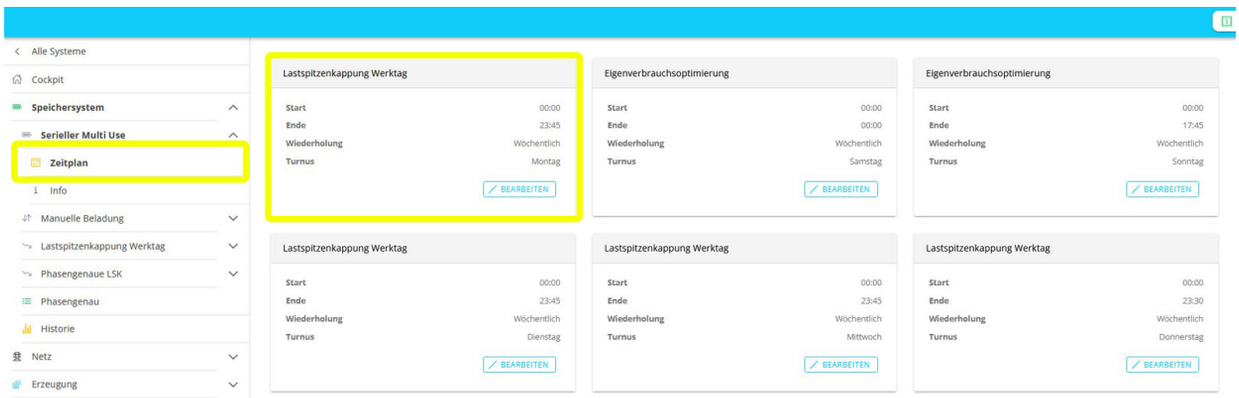


Figure 2. Zeitplan der Aufgaben des Speichersystems

Klicken Sie auf *Bearbeiten*.

Hier passen Sie unter *Controller* die Art der Aufgabe, z. B. Manuelle Entladung, den Wiederholungsintervall, die Start- und Endzeiten sowie den Turnus an:

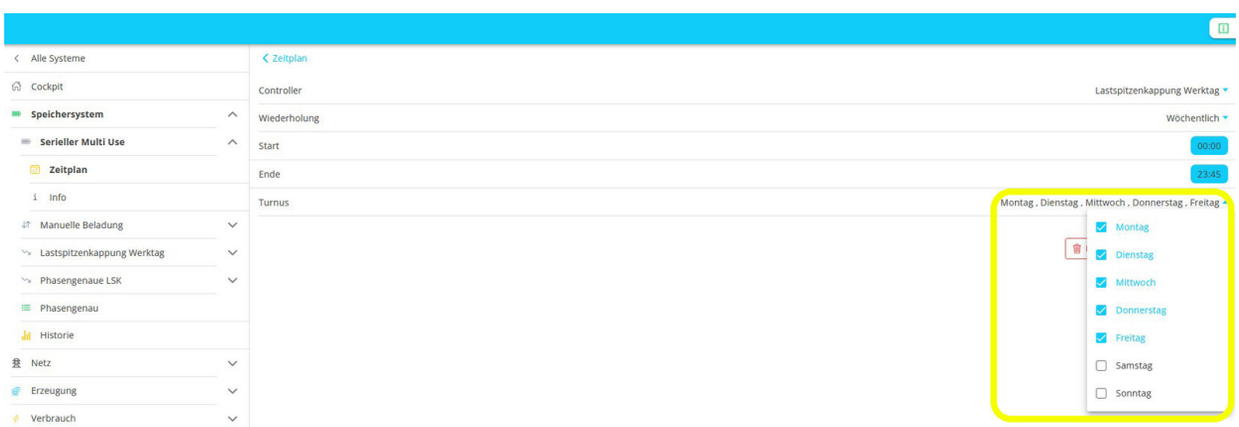


Figure 3. Bearbeiten der Aufgaben des Speichersystems

3.1. Festlegen der individuellen Leistungen

Bekannte Leistungseinstellungen werden weiterhin in den jeweiligen FEMS Apps unter dem Seitenmenü-Chip *Speichersystem* vorgenommen (hier am Beispiel Manuelle Be-/Entladung):

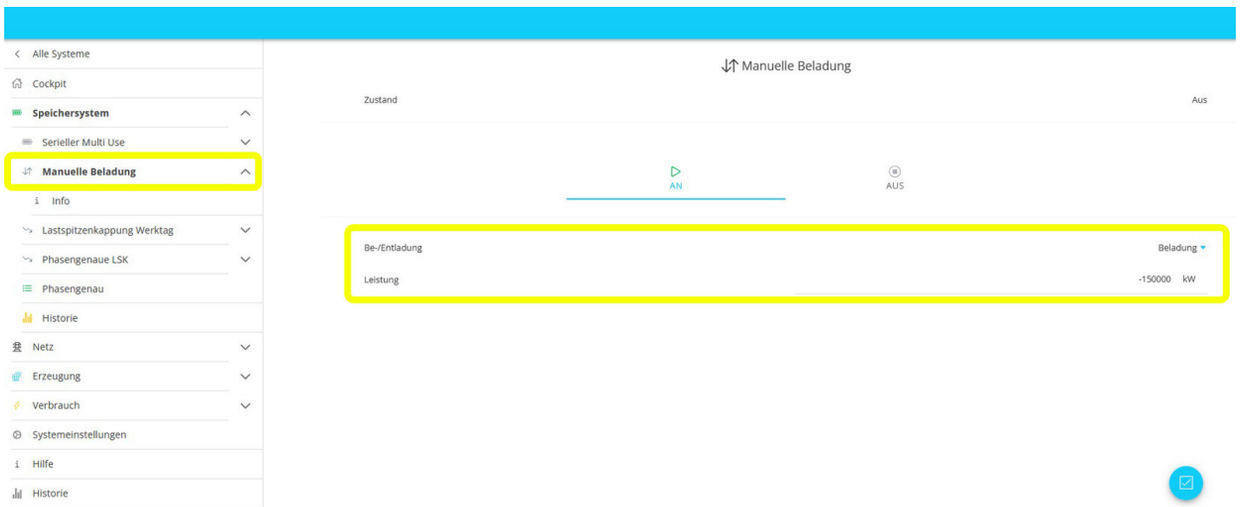


Figure 4. Festlegen der individuellen Leistungen

In folgenden FEMS Apps können die individuellen Leistungen festgelegt werden:

- Manuelle Beladung
- Manuelle Entladung
- Lastspitzenkappung
- Eigenverbrauchsoptimierung

FENECON konfiguriert die FEMS Apps nach Kundenwunsch. Es ist auch möglich, FEMS Apps mehrfach zu installieren. Bitte wenden Sie sich an Ihren Ansprechpartner unter projekt@fenecon.de.

include::/workspace/FENECON/docs/docs/en/modules/ROOT/partials/themes/fenecon/OEM_Contact_config.adoc[]
include::/workspace/FENECON/docs/docs/en/modules/ROOT/partials/themes/fenecon/OEM_Contact.adoc[] <<<

4. Directories

4.1. List of illustrations