

SUCCESS CASE 40.2025

Self-Service Warehouse

SELF-SERVICE ELECTRICITY
METERS WAREHOUSE

INTRODUCTION

Each of these devices has a unique serial number assigned by the manufacturer. In order to **streamline meter warehouse processes** (i.e., speed up the work, reduce costs, increase employee efficiency, and reduce the number of errors) and to enable unambiguous identification of meters, Enea Operator needed to find and implement an appropriate technological solution. After analysing solutions available on the market, the Polish DSO decided to use the **Radio-Frequency Identification (RFID) technology**.

In 2020, as part of the development of a central application for metering devices management, Enea Operator launched a full-scale warehouse circulation scheme based on radio identification of products. The next step consisted of building the **first self-service warehouse based on the RFID technology** in 2022. The self-service warehouse implementation project was selected by the jury of the [RFID Journal Awards](#) 2023 as a finalist in the “Best RFID or IoT Implementation” category. This nomination was one of the key factors that led the Board of Enea Operator to approve the full-scale implementation of the self-service warehouse project in the company. As part of the project, the DSO now plans to build **19 warehouses**.

REORGANISATION OF THE WAREHOUSE LOGISTICS NETWORK

Enea Operator commissioned the preparation of an expertise document aimed at **reorganising the model of measuring devices logistics network with the inclusion of self-service warehouses**. The recommendations resulting from the document indicated a reduction in the number of stationary field warehouses (from the current 27 to 7), in favour of self-service warehouses, whose optimal number was determined to be 19.

ADVANTAGES OF SELF-SERVICE WAREHOUSES

The basis used for building a self-service warehouse was the largest sea container commonly used in maritime transport. Compared to a stationary warehouse, this facility offers several advantages, such as:

- **Availability:** The stock can be collected and returned at any time, 24/7. This is an advantage particularly appreciated by field workers.
 - **Self-service:** Accessing and using the contents of the warehouse does not require the presence of additional warehouse staff.
 - **Security:** Access to the contents of the warehouse is possible only with authorisation in the internal application, which guarantees access control and asset protection against damage or theft.
 - **Flexibility:** The warehouses can be located where they are needed (e.g., in places with increased fitter activity). Enea Operator has adopted a policy of placing such facilities on its own company's premises.
 - **Time saving:** The registration of the warehouse opening, the recording of the taken/returned assortment, and the creation of the warehouse documents are performed automatically.
 - **Reliability:** The use of the RFID technology ensures the accuracy of automatically collected data.
- More information on the self-service warehouse can be found in [this](#) and [this](#) video.



The self-service warehouse in pictures.

SUMMARY AND WAY FORWARD

Enea Operator is a promoter of the implementation of the RFID technology in the energy distribution industry. The self-service warehouse based on the RFID technology, which is a proprietary solution

by Enea Operator is an innovative product that brings a set of unique benefits. These have been recognised by many of the Polish DSO partners who are planning to implement similar solutions in their companies. This indicates that, in the future, the product may find many new recipients and the implementation in Enea Operator may be the beginning of a cascading change in the reorganisation of the energy devices' logistic networks. Moreover, the universal character of the idea would allow for its application in many other industries, requiring only minor modifications.