Photon Energy

February 2026

BESS Monthly Financial Analysis

Breaking down revenue potential in the Czech Republic, Hungary, Poland and Romania

What's inside?

Breakdown of income sources, including DAM and aFRR

Revenue optimisation modelling using real market data

Comparison of results from the previous month

Introduction

This monthly report evaluates the financial performance of standalone 1 MW / 1 MWh and 1 MW / 2 MWh battery energy storage systems (BESS) in four key Central and Eastern European markets: Czech Republic, Poland, Romania, and Hungary.

We consider two main revenue streams:

- **Day-ahead market (DAM)** arbitrage
- **Automatic frequency restoration reserves (aFRR)** – including reservation and activation (Up and Down)

Methodology

All revenue figures are calculated using an advanced optimisation tool that assumes ideal hourly operation. This allows us to simulate how a battery system could perform in each market under realistic conditions, using real market pricing in February 2026.

Assumptions

Roundtrip efficiency:	**94%** (charging and discharging 97% each)
Battery availability:	**96%**
Max cycles/day:	**2**
Operational window:	**0–80% state of charge** (to prevent degradation)
Forecasting noise:	**5%**

Monthly revenues

The tables below compare the monthly revenues for standalone **1 MW / 1 MWh** and **1 MW / 2 MWh** BESS units across four Central and Eastern European markets. Results are broken down by revenue from **day-ahead market** (DAM) arbitrage alone and revenue from **all-market optimisation** (DAM + aFRR services). The decreasing (negative) or increasing (positive) trend with respect to previous month can be observed in columns marked "change".

All figures represent simulated earnings under optimal hourly operation during February 2026, based on typical system availability, roundtrip efficiency, and operating assumptions, country and market specification.

Optimisation results and change from last month – 1 MW / 1 MWh

	Czech Republic		Poland		Romania		Hungary	
	EUR/MW	change	EUR/MW	change	EUR/MW	change	EUR/MW	change
DAM only	1,261.7	-45.0%	2,183.8	-45.0%	1,786.6	-50.6%	2,036.7	-40.3%
aFRR Up reservation	2,521.8	-25.6%	10,389.4	-52.4%	2,583.3	4.0%	111.1	-88.0%
aFRR Up activation*	322.9	-82.6%	92.5	-10.3%	1,681.3	-54.0%	5,576.9	274.7%
aFRR Down reservation	11.0	-25.4%	5,897.2	-62.8%	1,130.4	101.1%	77.1	-49.4%
aFRR Down activation*	718.3	-30.8%	594.1	-39.9%	1,115.1	-36.9%	1,192.5	-42.0%
DAM within optimisation	767.2	-46.7%	1,311.9	-49.8%	1,408.4	-41.1%	894.2	-46.4%

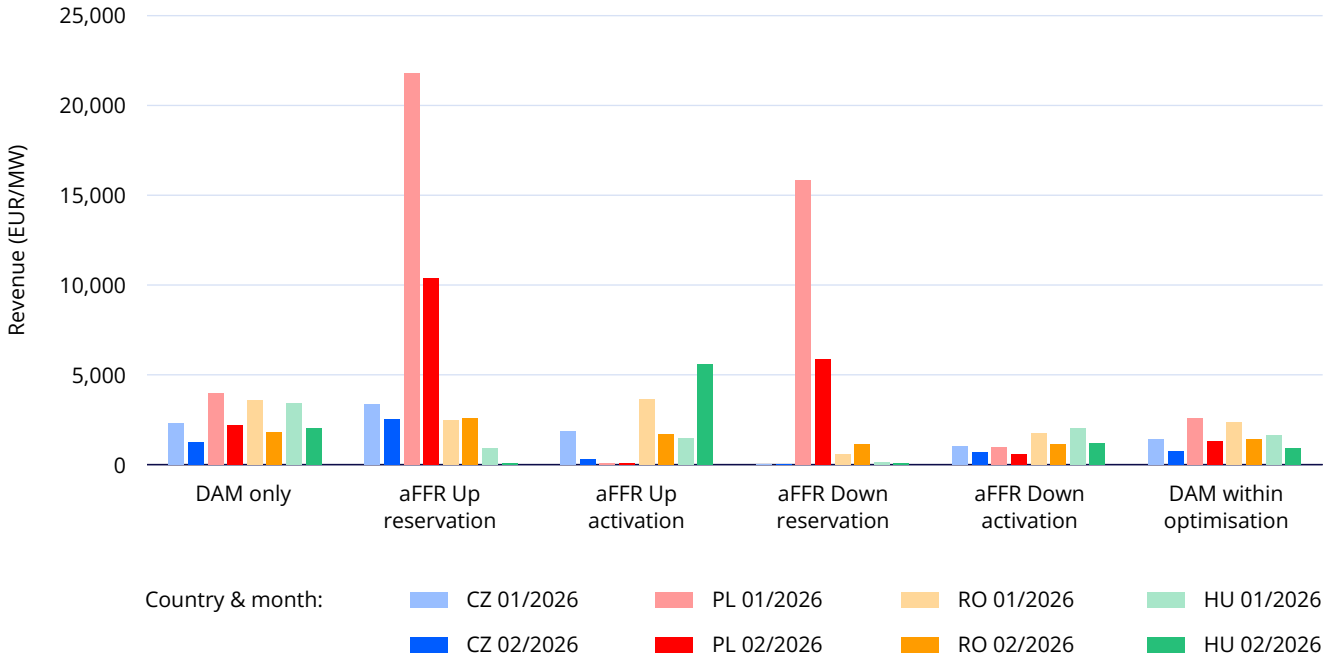
Optimisation results and change from last month – 1 MW / 2 MWh

	Czech Republic		Poland		Romania		Hungary	
	EUR/MW	change	EUR/MW	change	EUR/MW	change	EUR/MW	change
DAM only	2,095.6	-51.5%	4,023.8	-47.3%	3,389.5	-50.9%	3,808.6	-42.1%
aFRR Up reservation	3,093.0	-22.4%	12,828.2	-56.8%	3,237.1	-2.0%	121.5	-88.9%
aFRR Up activation*	1,174.3	125.7%	87.7	-45.4%	1,967.4	-57.5%	7,633.9	306.7%
aFRR Down reservation	13.4	-21.4%	6,673.1	-62.5%	1,412.5	88.2%	99.1	-52.3%
aFRR Down activation*	820.6	-52.8%	799.1	-41.2%	2,417.7	9.6%	1,958.0	-23.8%
DAM within optimisation	1,647.1	-46.8%	2,184.1	-55.7%	2,428.2	-46.2%	2,760.1	-37.7%

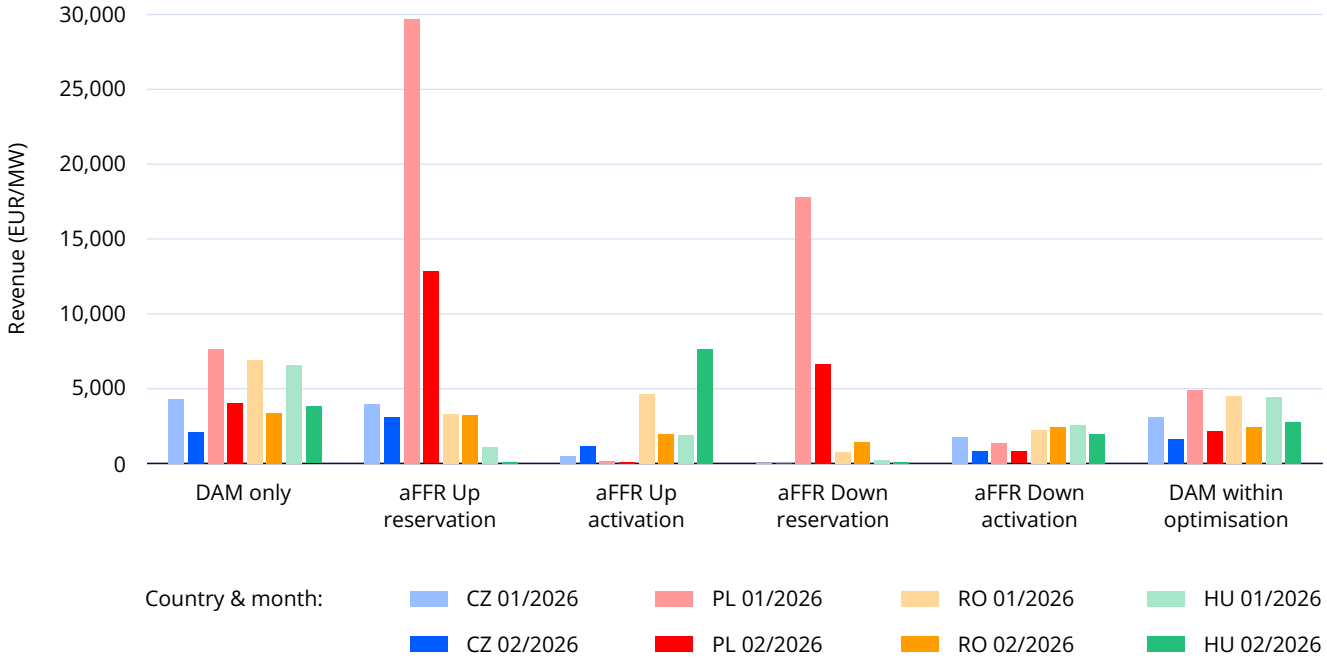
**Note: The activation portion of income includes the cost of recharging the battery after aFRR Up activation, and the revenue earned from discharging after aFRR Down activation.*

Month-on-month comparison

Revenue for February 2026: 1 MW / 1 MWh standalone battery compared to previous month



Revenue for February 2026: 1 MW / 2 MWh standalone battery compared to previous month



Market price summary

February 2026

This section presents pricing data from February 2026 across day-ahead and ancillary service markets. These prices form the basis for the revenue modelling presented earlier and help explain changes in financial performance across Central and Eastern Europe.

All prices are reported in **EUR/MWh (or EUR/MW in case of reservation) as monthly averages** and include:

- Day-ahead market (DAM) prices
- aFRR reservation (Up and Down)
- aFRR activation (Up and Down)

This table provides detailed pricing information (in EUR) for different countries and different energy market mechanisms. The table captures a range of statistics for each country, including the **mean**, **minimum**, **maximum**, and **standard deviation**.

Country	Market type	Mean	Min	Max	Std dev
Czech Republic	DAM	130.9	35.0	260.1	40.1
	aFRR Down reservation	0.0	0.0	0.1	0.0
	aFRR Up reservation	7.5	1.5	28.3	6.2
	aFRR Down activation	80.2	0.0	298.4	38.3
	aFRR Up activation	148.2	15.5	3,699.7	212.2
Poland	DAM	149.5	-0.7	479.8	79.4
	aFRR Down reservation	31.0	5.5	152.4	21.7
	aFRR Up reservation	45.4	8.4	252.6	51.4
	aFRR Down activation	95.1	-52.4	386.5	34.6
	aFRR Up activation	134.9	7.5	497.5	51.9

Market price summary

Country	Market type	Mean	Min	Max	Std dev
Romania	DAM	150.5	25.7	455.2	68.2
	aFRR Down reservation	1.3	0.2	5.5	1.2
	aFRR Up reservation	6.3	3.4	7.6	1.1
	aFRR Down activation	30.2	-889.7	156.3	70.4
	aFRR Up activation	232.2	0.0	1,986.8	238.7
Hungary	DAM	149.2	26.9	418.7	64.2
	aFRR Down reservation	0.3	0.0	4.0	0.6
	aFRR Up reservation	2.6	0.0	33.1	5.0
	aFRR Down activation	25.0	-68.9	104.4	29.4
	aFRR Up activation	98.9	0.0	1,647.5	199.3

Note: The positive Down activation prices represent a situation when the client is paying for charging the battery during activation, the negative Down activation prices represent a situation when client gets paid for charging the battery during activation.