

BESS Monthly Financial Analysis

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

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 five key Central and Eastern European markets: Czech Republic, Poland, Romania, Hungary and Slovakia.

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 March 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 March 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		Slovakia	
	EUR/MW	change	EUR/MW	change	EUR/MW	change	EUR/MW	change	EUR/MW	change
DAM only	2,724.4	115.9%	3,787.8	73.4%	3,336.3	86.7%	4,205.2	106.5%	3,521.0	88.0%
aFRR Up reservation	3,893.9	54.4%	21,039.7	102.5%	2,743.0	6.2%	262.5	136.3%	14,686.8	20.2%
aFRR Up activation*	501.8	55.4%	199.3	115.5%	999.1	-40.6%	1,984.8	-64.4%	23.4	21.6%
aFRR Down reservation	90.6	723.6%	17,289.6	193.2%	1,904.1	68.4%	398.7	417.1%	4,323.0	31.8%
aFRR Down activation*	1,073.3	49.4%	1,222.4	105.8%	2,962.3	165.7%	2,145.0	79.9%	1,990.3	66.4%
DAM within optimisation	2,564.5	234.3%	3,614.3	175.5%	3,141.2	123.0%	3,499.5	291.4%	2,976.0	506.3%

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

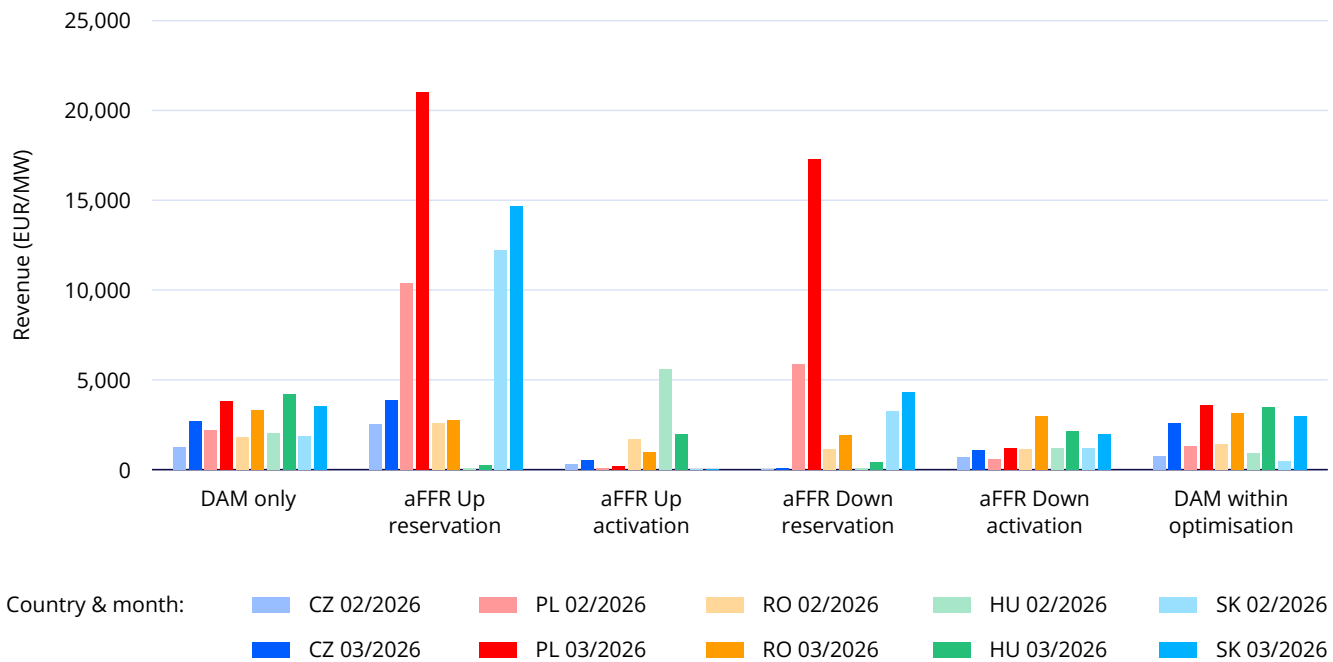
	Czech Republic		Poland		Romania		Hungary		Slovakia	
	EUR/MW	change	EUR/MW	change	EUR/MW	change	EUR/MW	change	EUR/MW	change
DAM only	4,974.3	137.4%	7,157.1	77.9%	6,392.8	88.6%	8,073.6	112.0%	6,994.2	99.4%
aFRR Up reservation	4,405.4	42.4%	25,651.3	100.0%	3,399.9	5.0%	323.8	166.5%	18,420.7	14.9%
aFRR Up activation*	255.8	-78.2%	101.9	16.2%	858.4	-56.4%	1,556.1	-79.6%	48.1	-46.6%
aFRR Down reservation	104.9	682.8%	22,066.2	230.7%	2,340.7	65.7%	452.3	356.4%	5,488.4	32.4%
aFRR Down activation*	1,333.9	62.6%	1,395.8	74.7%	4,887.6	102.2%	2,491.0	27.2%	2,315.2	54.6%
DAM within optimisation	5,118.7	210.8%	7,330.8	235.6%	6,312.3	160.0%	7,302.5	164.6%	6,182.0	249.4%

*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

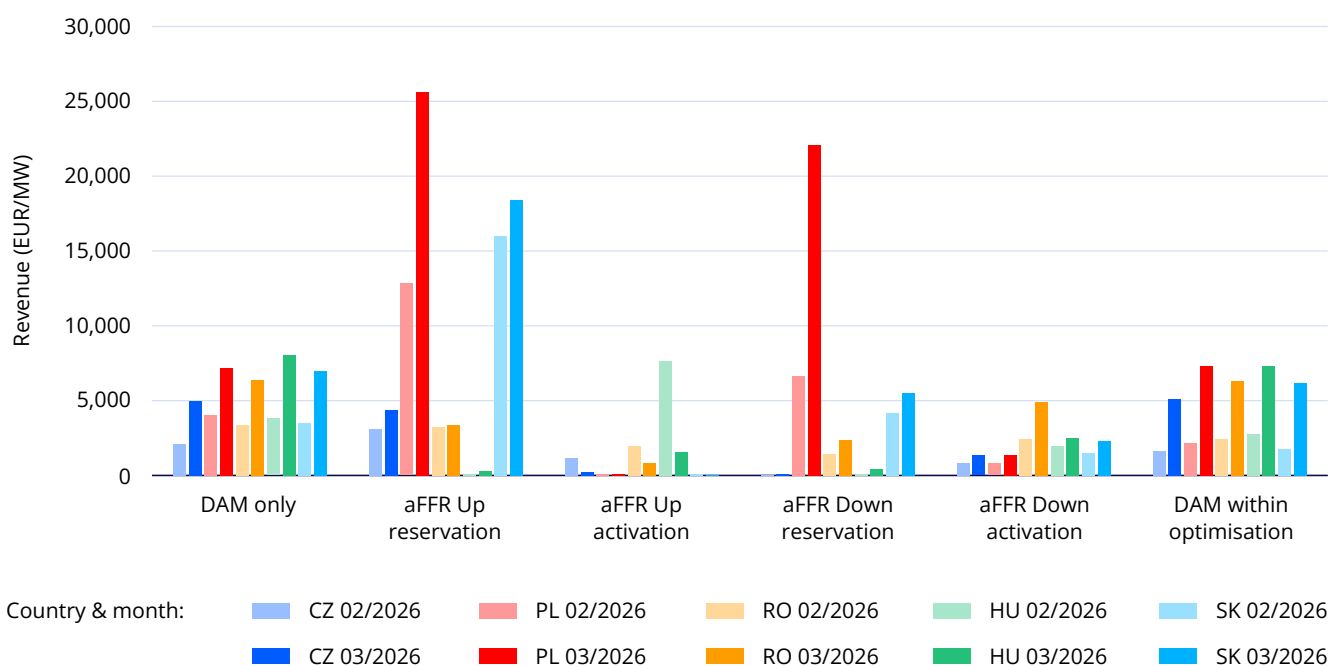
Revenue for March 2026:

1MW / 1MWh standalone battery compared to previous month



Revenue for March 2026:

1MW / 2MWh standalone battery compared to previous month



Market price summary

March 2026

This section presents pricing data from March 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	108.9	-0.8	285.9	48.5
	aFRR Down reservation	0.2	0.0	0.5	0.1
	aFRR Up reservation	8.3	1.5	37.6	7.6
	aFRR Down activation	60.2	-669.0	182.8	43.5
	aFRR Up activation	104.4	5.8	393.5	40.5
Poland	DAM	109.2	-7.6	284.1	53.6
	aFRR Down reservation	37.2	5.0	240.1	34.8
	aFRR Up reservation	44.9	5.5	232.6	41.3
	aFRR Down activation	64.6	-144.8	184.3	41.9
	aFRR Up activation	103.3	-10.3	332.0	32.0
Romania	DAM	104.7	-4.1	282.1	59.8
	aFRR Down reservation	4.2	0.8	6.9	1.4
	aFRR Up reservation	6.5	4.1	8.1	0.8
	aFRR Down activation	-25.8	-1,243.3	100.0	168.2
	aFRR Up activation	148.2	0.0	1,395.3	169.4

Market price summary

Country	Market type	Mean	Min	Max	Std dev
Hungary	DAM	118.5	-5.4	300.0	60.3
	aFRR Down reservation	0.9	0.0	13.6	2.0
	aFRR Up reservation	0.7	0.0	26.8	2.8
	aFRR Down activation	-2.6	-318.2	51.5	18.5
	aFRR Up activation	159.7	0.0	4,375.0	342.8
Slovakia	DAM	113.7	-2.2	284.8	53.6
	aFRR Down reservation	9.5	0.0	10.7	1.6
	aFRR Up reservation	31.9	17.9	35.1	3.0
	aFRR Down activation	13.6	-293.7	60.7	23.7
	aFRR Up activation	116.9	0.0	390.6	44.1

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.

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