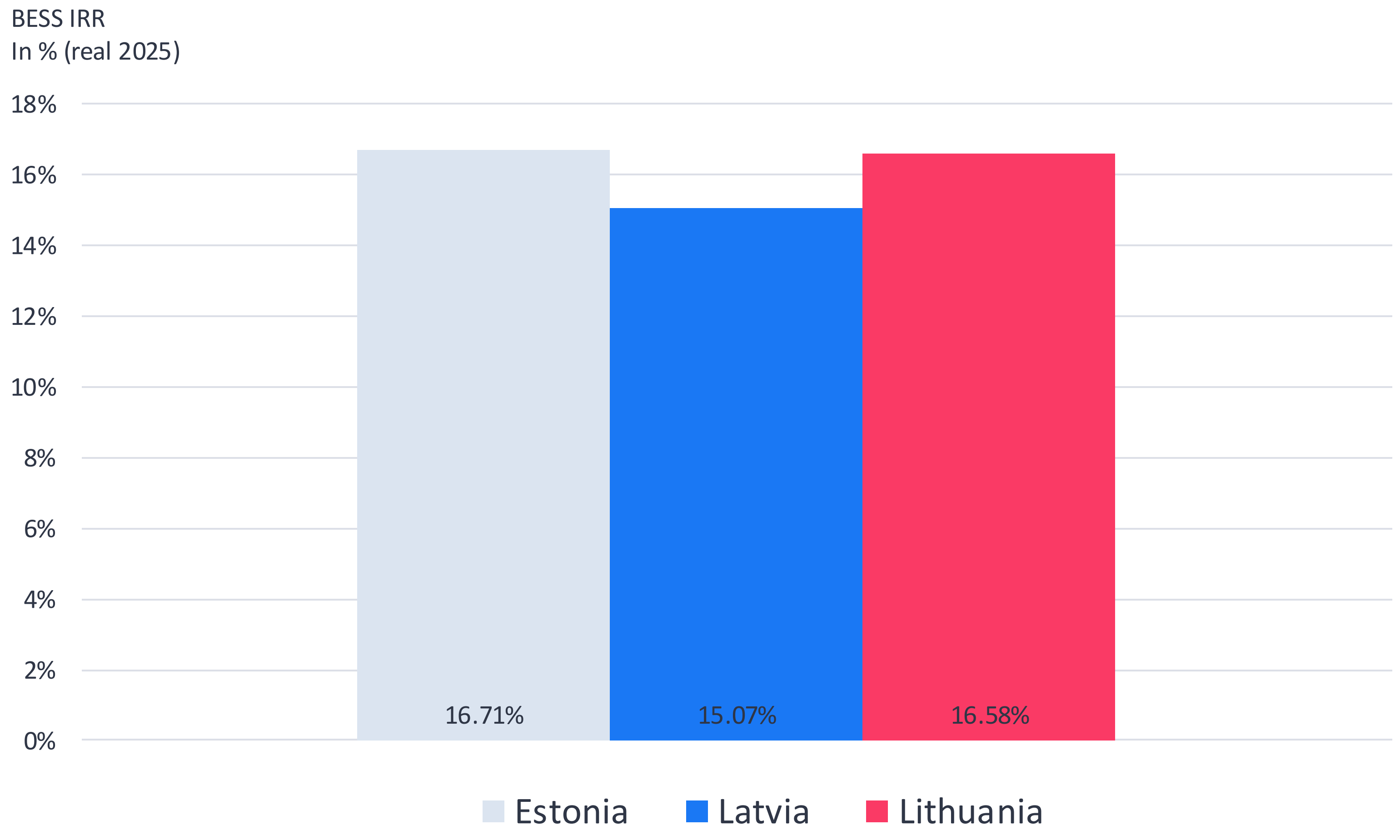
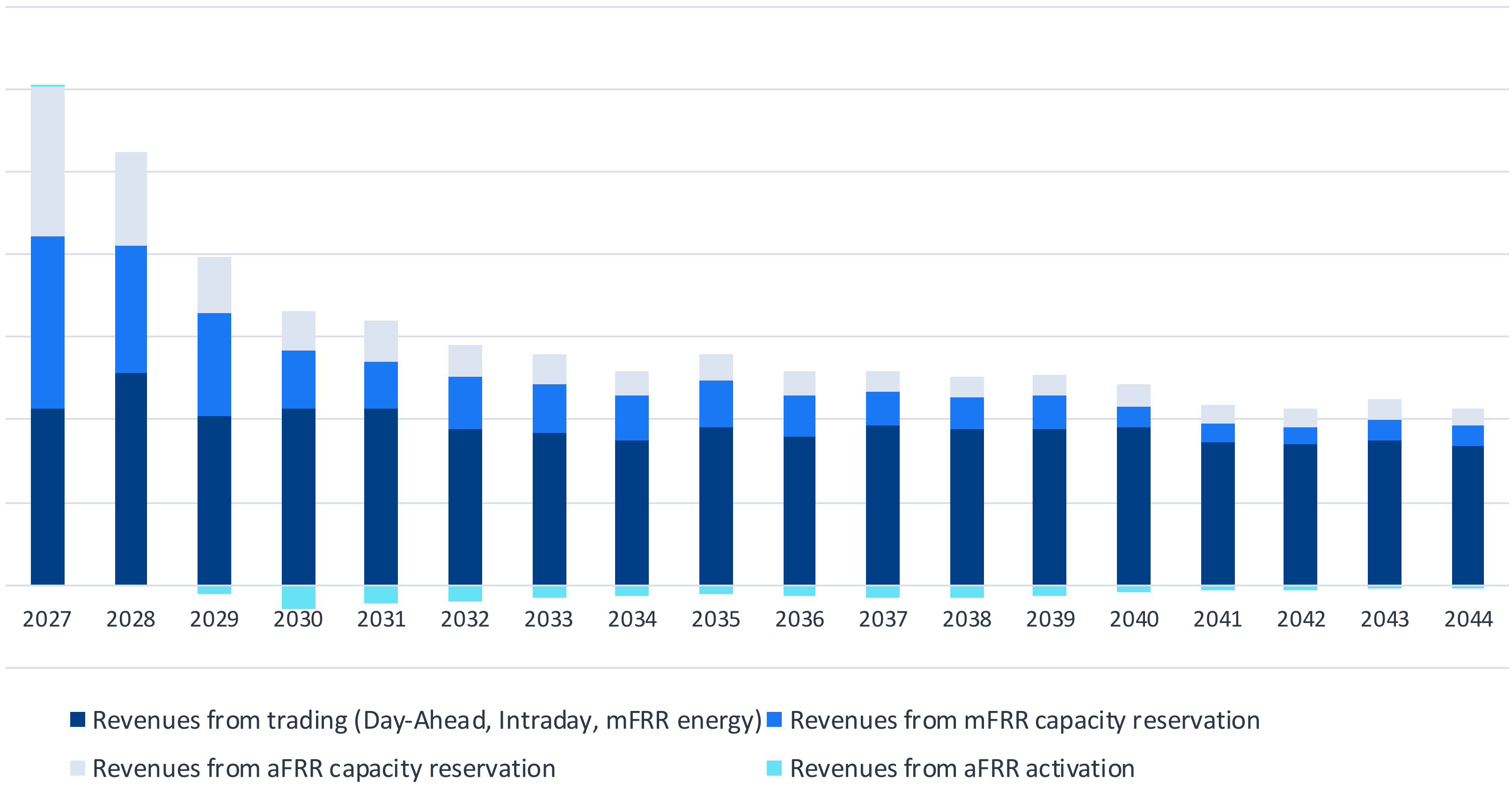
2-hour BESS IRR comparison for the central scenario (COD in 01/01/2027 – 18 years)



- The IRRs across the three countries are very similar, but some differences emerge in revenue and cost distribution.
- Latvia slightly underperforms on the Intraday market compared to Estonia, while Lithuania benefits from relatively low grid fees, which improves its economic performance.

Revenue stack

Revenue stack for a 50 MW / 100 MWh BESS project in **ESTONIA** – Central scenario
In k€ – real 2025



Revenue Analysis

2027-2028: During the first two years, batteries benefit from high prices on the aFRR and mFRR capacity markets, and high revenues are generated at the start of the project.

2029-2033: After 2029, revenues are expected to drop due to aFRR and then mFRR market saturation.

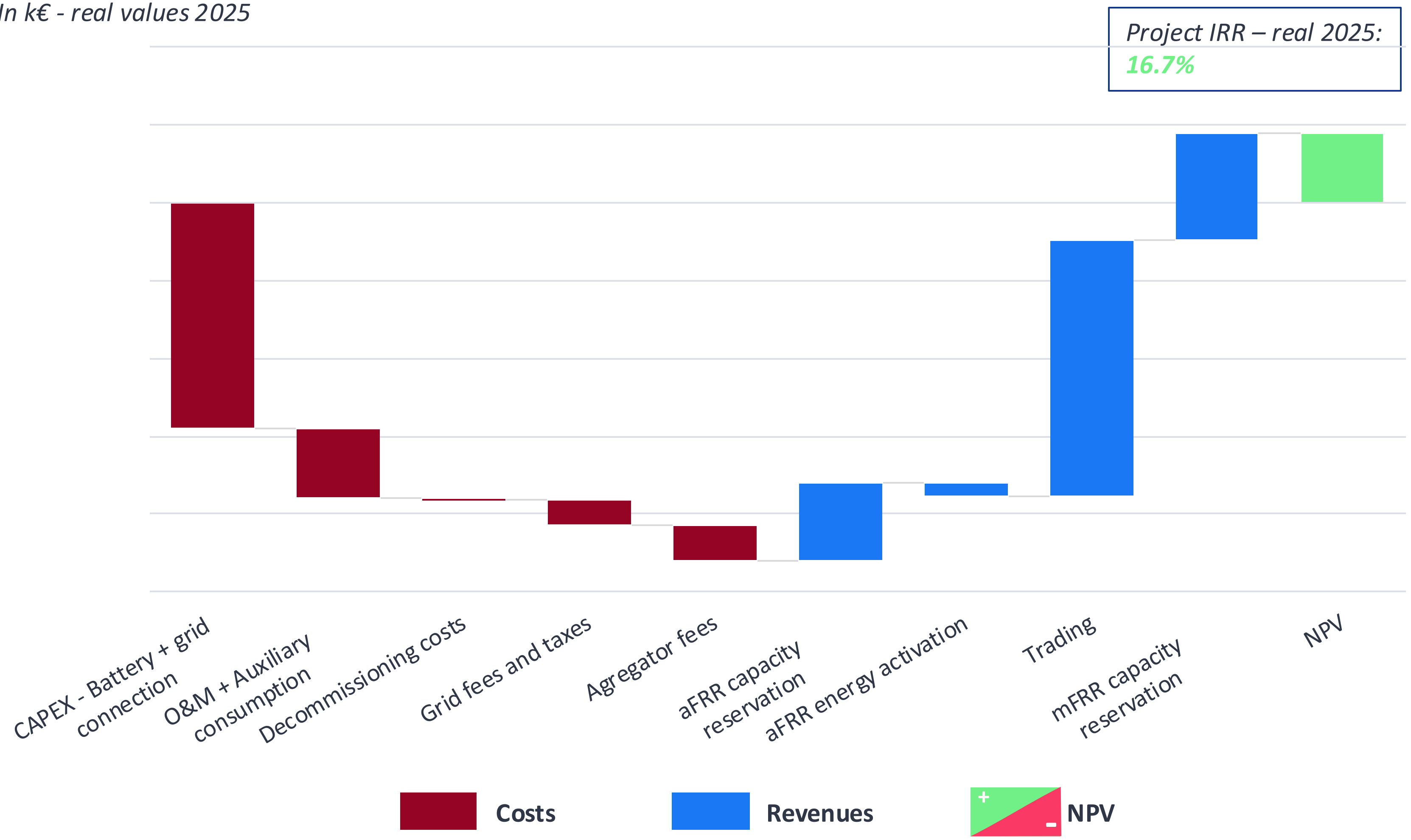
2033 onwards: After 2033, trading (mostly day-ahead, intraday) represents a larger share of the revenue stack.

In some years, the net aFRR energy activation revenues can be negative. This occurs when the BESS chooses to buy energy from the aFRR market – taking advantage of lower prices – so it can sell it at a profit on another market with higher prices.

Discounted cashflow

Discounted costs and revenues of the 50 MW / 100 MWh BESS project in **ESTONIA** – Central scenario

In k€ - real values 2025



Cost Analysis

- The battery CAPEX represents a significant amount (63%) of the total cost of the project.
- A 2-hour battery generates most of its revenues through trading (60%) and mFRR (25%) capacity reservation, and the rest mostly through aFRR capacity reservation (18%).
- In the Central scenario, the 2-hour battery reaches profitability due to high revenues on mFRR capacity and energy trading.

Changes from Q3 2024 to S1 2025 prices and revenue stack

Revised renewables and battery penetration within the forecasted electricity mix	In light of the Baltic States' raised ambitions, our S1 2025 update revises upwards the forecasts for wind, solar PV and BESS capacity installation in the Baltics.
Short term day ahead prices have been increased and long-term volatility decreased	Earlier years on the day-ahead market have been updated reflecting the historical high price trends. For the long term, the day-ahead volatility is stabilized showing the growing role of flexibility assets in dampening price fluctuations.
Project duration has been extended to 18 years	Most of the guaranteed degradation curves for 1.5c/day have 18 years of duration. Thus, the lifetime of the business model has been updated accordingly.
Updates in grid fees	Grid fees have been updated according to the latest TSOs publications.
Intraday revenues has been forecasted	BESS participation in this volatile market has been added in the business model, enhancing the revenue potential of the project in the long term and compensating partly the drop in ancillary services markets.

Long-term forecast based on market fundamental parameters

The following assumptions are used as inputs to the model:

- Country load evolution and flexible assets
- Installed thermal capacity (gas, nuclear, coal, etc.)
- Installed wind & solar capacity
- Future electricity mix of neighbouring countries
- Fuel prices: gas, coal and CO2 price

Other fundamental parameters used in the modeling:

- Electricity and storage market knowledge
- Storage deployment
- Market depth evolution
- Weather scenarios
- Regulatory changes
- Opportunity cost of energy storage on other markets (day-ahead, intraday, and aFRR)

Clean Horizon's dedicated in-house expertise

- Expertise in energy storage
- Critical view of storage experts on inputs and obtained scenarios
- AI algorithm tailored for storage
- Mathematically reliable algorithm simulating scenarios
- Multiple iterations and data post-treatment to verify accuracy of results

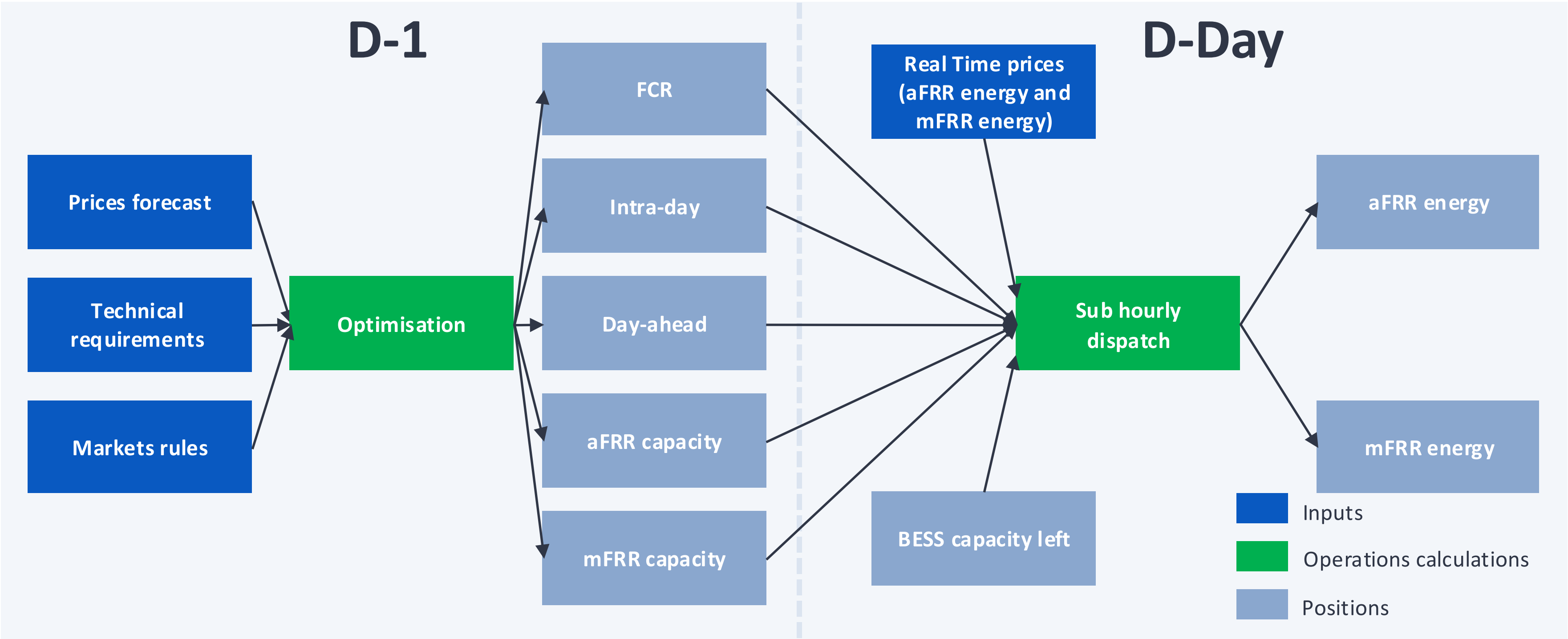
Forecast provided	Granularity
Day-ahead market	1h
mFRR reservation	1h
mFRR activation	15min
FCR	1h
aFRR reservation	1h
aFRR activation	15min
Intraday revenues	15min

Trading Model: COSMOS optimizes battery revenue by simulating market participation decisions across D-1 and D-day markets throughout the project's lifetime

We are using COSMOS to simulate the dispatch and maximize the revenue.

COSMOS runs a simulation over the lifetime of the project and decides for each timeslot in which market the battery should participate. The considered markets are divided into two types:

- D-1 markets which are markets where the decision is taken one day before delivery: **day-ahead, FCR, aFRR and mFRR capacity, ID (capacity reserved for the participation in this market)**
- D markets which are markets where the decision is taken on delivery day: **aFRR energy, mFRR energy**



To take positions for D-1 markets, a **D-1 optimization model** under constraints is solved. The model chooses for each time period what the battery usage should be to maximise its revenues, based on the market prices forecasts, technical requirements and market rules.

Once the D-1 markets positions are taken, the trading model takes decisions for the D-day markets in order to maximise the revenue. Having a forecast of D-day market prices is an unrealistic assumptions, therefore, the **D-day simulation** is based on **logical decisions** that use thresholds that determine when to buy or sell energy (logic control when a certain price is reached).

These thresholds are calculated based on historical prices and they modulated as a function of the state of charge and the consumed cycles during the year

In the trading simulation, it is decided to sell (respectively buy) energy if the real-time price is higher (respectively lower) than the upper (respectively lower) threshold of the given month if the state of charge of the battery permits the operation.