AFRY

Capalo.AI Energy Day

BESS in Greece



AFRY Management Consulting

Lauri Neuvonen

AFRY's flexibility services and modelling cover all of Europe

AFRY Flexibility offering:

1. Detailed insight into markets
    1. Off-the-shelf reports and bespoke scenarios
    2. Workshops with our market experts
    3. Data through API

2. Market forecasting and BESS revenue projections
    — BID3 – our own market model, used by e.g. Nordic TSOs

3. Bespoke analysis can cover various types of assets, portfolios and products
    — Portfolio based PPA cost optimisation
    — Hybrid assets analysis
    — etc

Geographical and market coverage

Capacity price projections
Annual prices

Day Ahead price projections
Hourly prices

Intraday price projections
Quarter hourly prices

Primary balancing services
Holding prices (FCR)

Secondary balancing services
Activation and holding prices (aFRR)

Tertiary balancing services
Activation and holding prices (mFRR/RR)

Revenue streams analysed vary depending on local market arrangements



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AFRY Management Consulting is a leading advisor in energy asset transactions, financing and feasibility studies

INVESTORS: SELECTION OF CLIENTS



CORPORATES: SELECTION OF CLIENTS



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BESS and flexibility in Greece
Current status and outlook

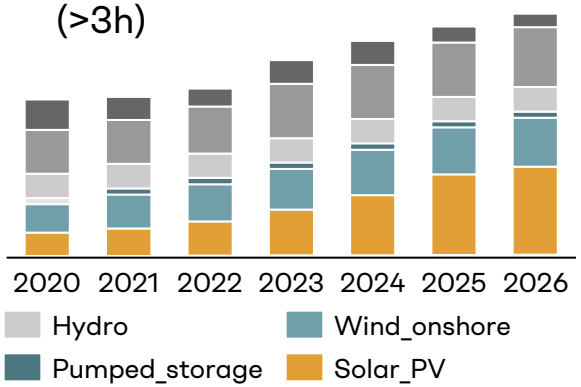


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Flexibility demand grows with Solar PV but access to aggregation is a race. Regional development increases competition and financing requirements

RES buildout drives need for flexibility

- Fast growth in the short term leading to demand for flexibility, 3x PV in last 5 years
- **Increases demand especially for longer duration BESS** (>3h)



Regional competition in flexibility is increasing

- Fast BESS capacity growth in Bulgaria and Romania
- Increases **regional storage competition**
- Reduces cross-border arbitrage opportunities and BESS gross margins in Greece

Race is on to secure Aggregator contracts

- Current spreads are high, over 120 EUR/MWh TB4
- Regional competition, 500 MW aggregator cap and uncertainty about future market **push for fast market entry**
- So far aggregators hold a lot of power. Situation might change if the anti-concentration limit is relaxed

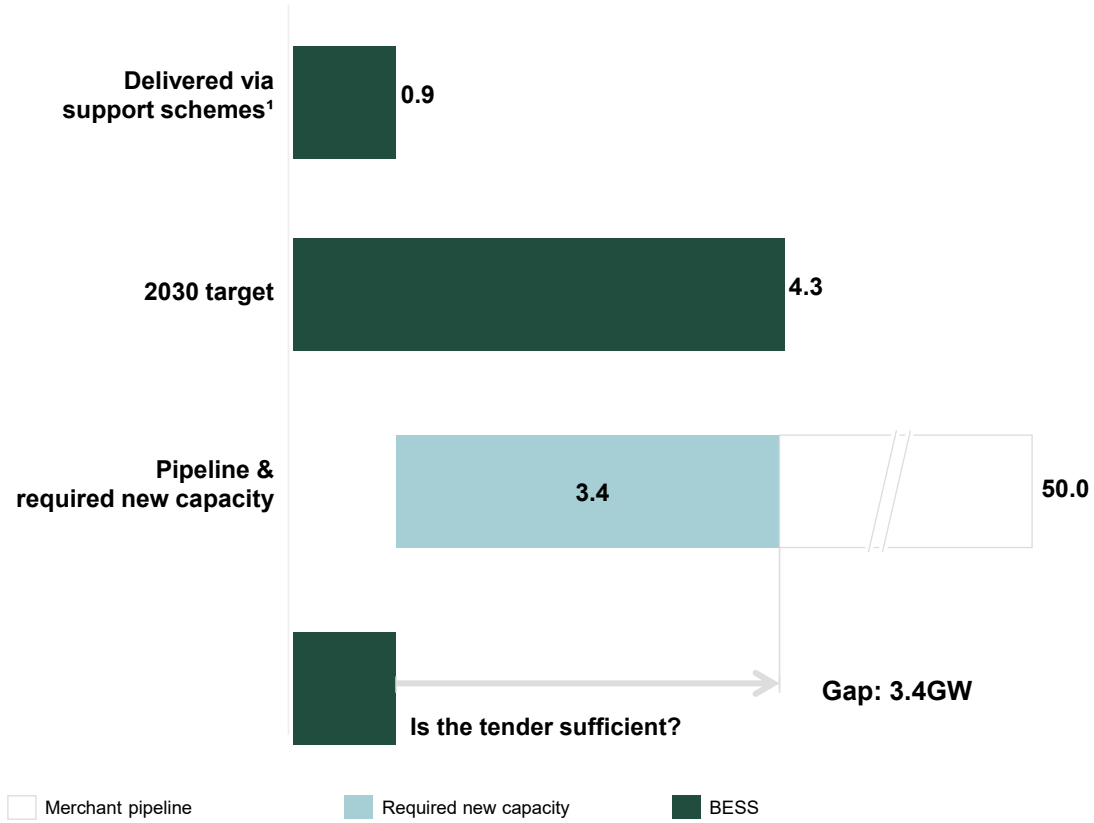
BESS capacity will increase

- Rapid uptake in the short term, decreasing pace later depending on spread development and barriers
- New projects are over 3h in duration as PV dominated market is more suitable for longer duration storage
- Investors might be worried about market saturation, increasing demand for revenue security and offtake contracts

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Government has an ambitious BESS target and supports BESS capacity deployment – achieving the set target, however, will be challenging

BESS targets and new capacity requirements (GW)



Source: *[source names unclear in original image]*

Routes to achieve capacity requirement

Policy support

4.7 GW of standalone merchant BESS have been selected for **fast-track grid connection**

A new 200 mEUR battery subsidy programme for 2027–28

- 50 mEUR for standalone BESS and
- 50mEUR for batteries co-located with RES.
- 100 mEUR will support batteries for self-consumption, split equally between businesses and municipalities.

Market driven

Government 4.3 GW standalone BESS target by 2030

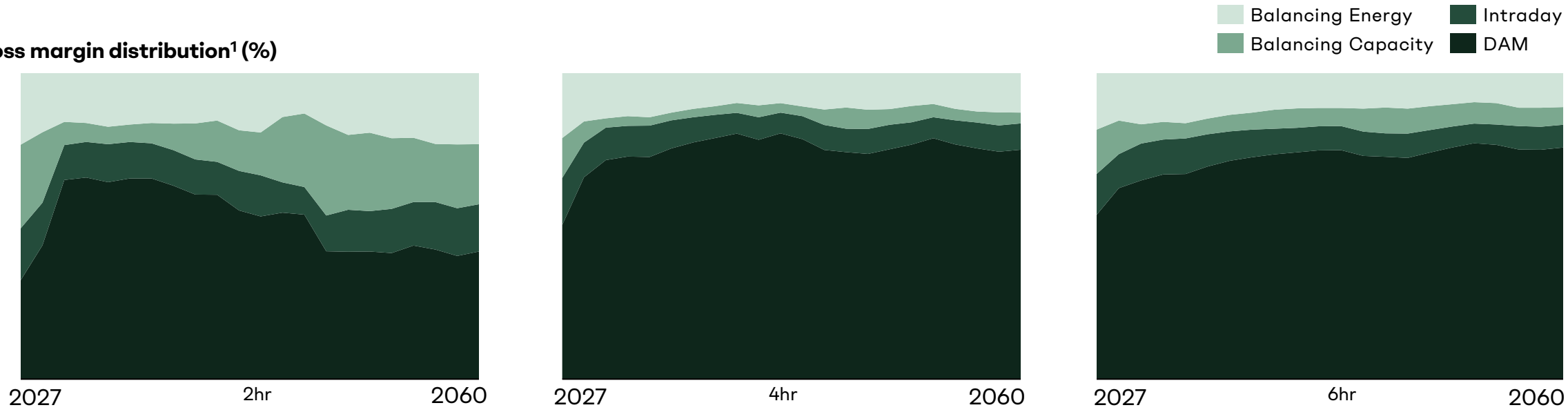
500 MW grid-connection limit per aggregator is likely to narrow the market development potential,

Project financing also remains challenging due to the absence of commercial revenue mechanisms and Greece's limited track record of merchant BESS market depth.

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The need for flexibility is real but success in the markets requires finding a good aggregator with available capacity. Gross profit will be arbitrage dependent

Gross margin distribution[1] (%)



- Aggregation is a key revenue generation, and market access question
- Longer duration BESS are more profitable
- Capacity markets hold limited potential and are subject to saturation
- In addition to high-quality optimizer with availability, financing benefits from contractual revenue security

Note: 1. Excluding potential capacity payments.

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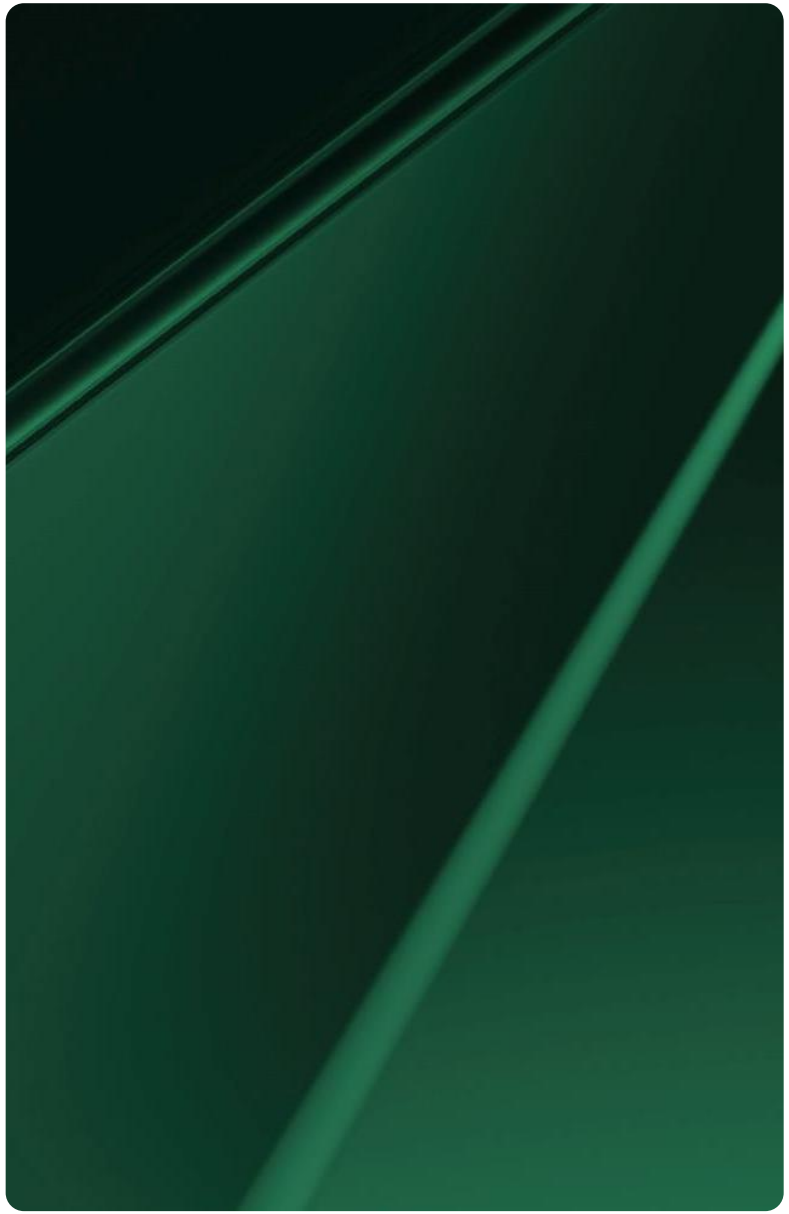
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