PREDICTIVE BATTERY ANALYTICS PLATFORM

From Contract to Commissioning: De-Risking the Early Phases of BESS Projects.

DECEMBER 2025 | MARC LOCKE

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Battery Intelligence

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POP QUIZ

What is a typical oversizing factor for most battery projects online today?

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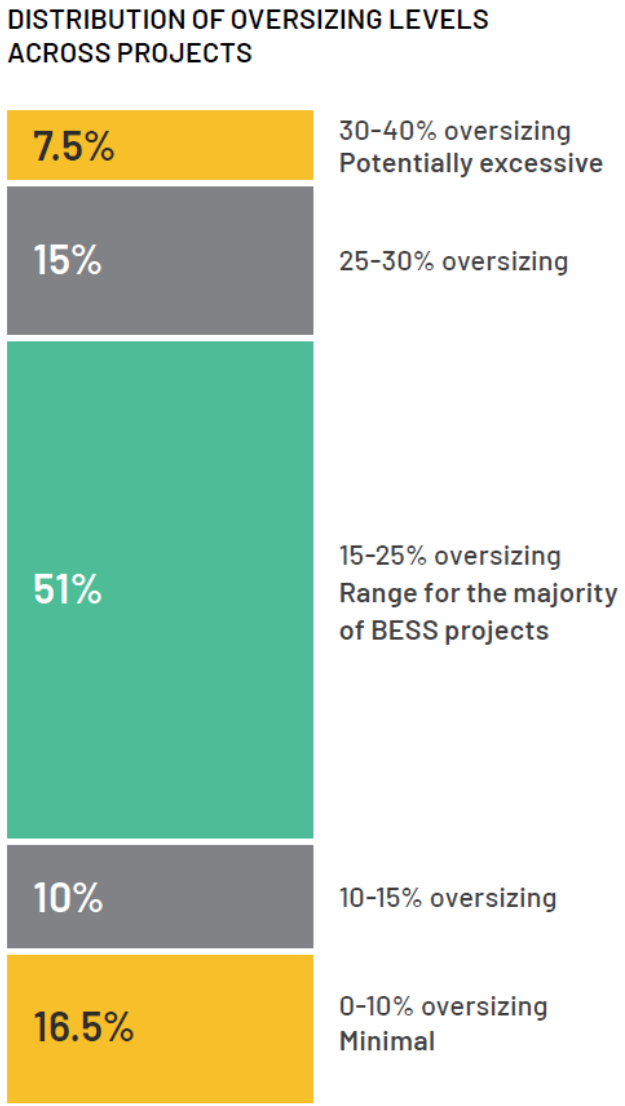

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How many assets perform below capacity targets at site acceptance testing (SAT)?

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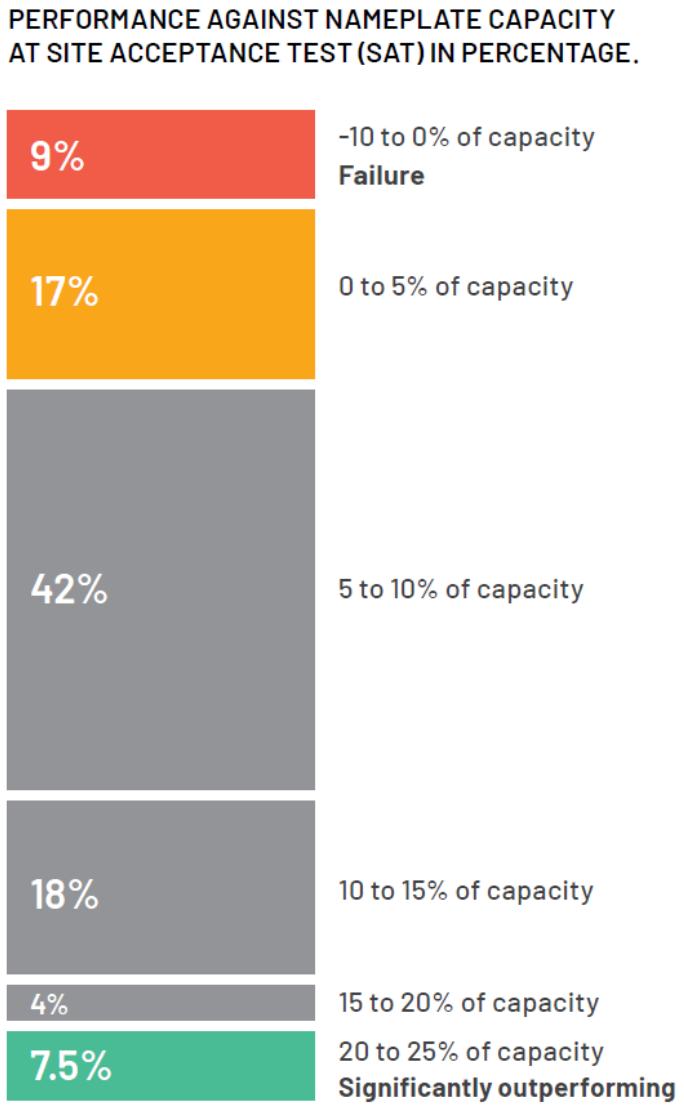

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What percentage of BESS construction crews did not work with batteries two years ago?

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POP QUIZ

What percentage of BESS construction crews did not work with batteries two years ago?

> 50%

As with anything, experience matters. Shortcuts during the BESS construction phase have lasting effects.

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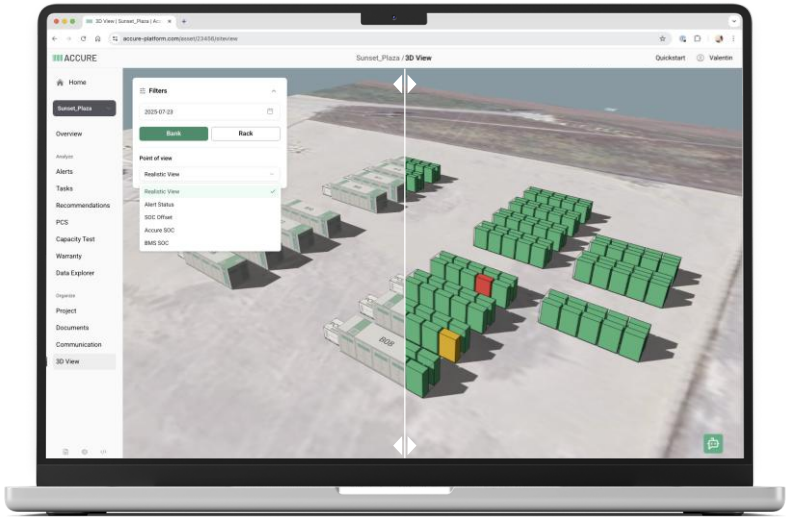
We are part of a young and fast-growing industry with a low level of standardization.

Therefore,
the early phases of BESS projects define long-term success.

THE GLOBAL LEADER IN BATTERY ANALYTICS

ACCURE turns battery data into action.



Award-winning platform built by world-class battery experts.

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Real-world examples: De-Risking the early phases of BESS projects.

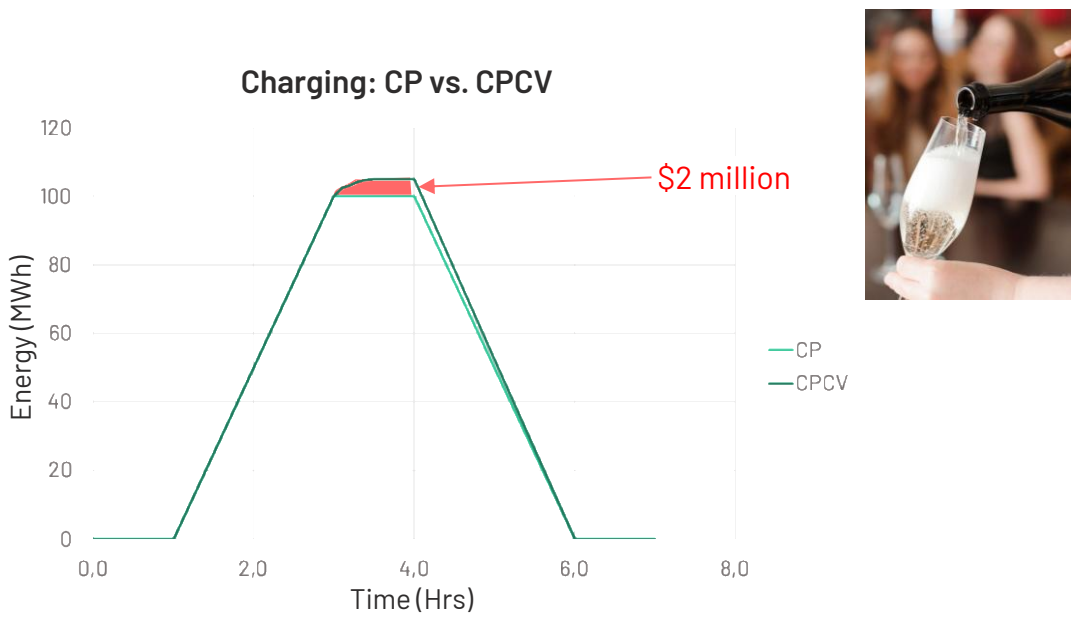
REAL-WORLD EXAMPLES: CONTRACTING

There are no standards for capacity testing procedures. Due to different approaches results can vary by up to 5% leading to increased CAPEX.

Contracting | Factory Acceptance Testing | Commissioning | Operations

Analysis
- No standard definitions for capacity testing procedures
- CPCV vs CP charging can inflate results by ~5%
- Example:
  - 5% of 200 MWh = 10 MWh
  - At $200/kWh → +$2m CAPEX

Solution
- Fully define test procedure in your contracts
- Match your real operations



REAL-WORLD EXAMPLES: FACTORY ACCEPTANCE TESTING

FAT lays the foundation for high system performance and reliability. Cell grading is a crucial factor to ensure highest quality standards.

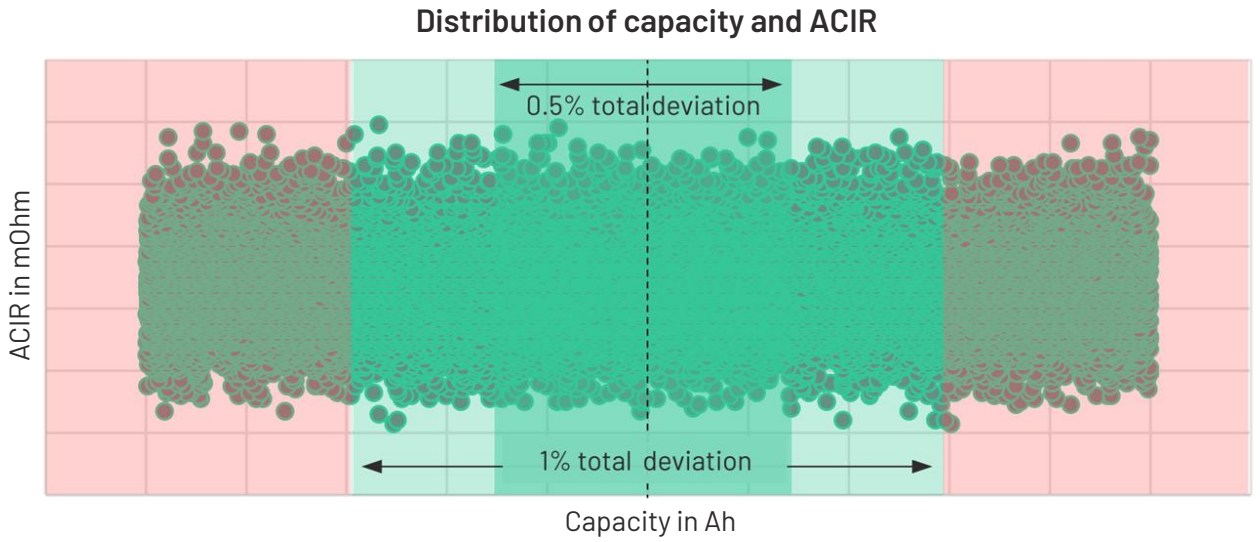
Contracting | **Factory Acceptance Testing** | Commissioning | Operations

Analysis

- Capacity analysis spec: ≤ 1% spread
- Result: only 57% of cells in range

Solution

- Customer claimed additional cell batches and re-grouping of cells.



REAL-WORLD EXAMPLES: COMMISSIONING

Cell quality differences lead to inhomogeneous system performance and missed site capacity and power targets during commissioning.

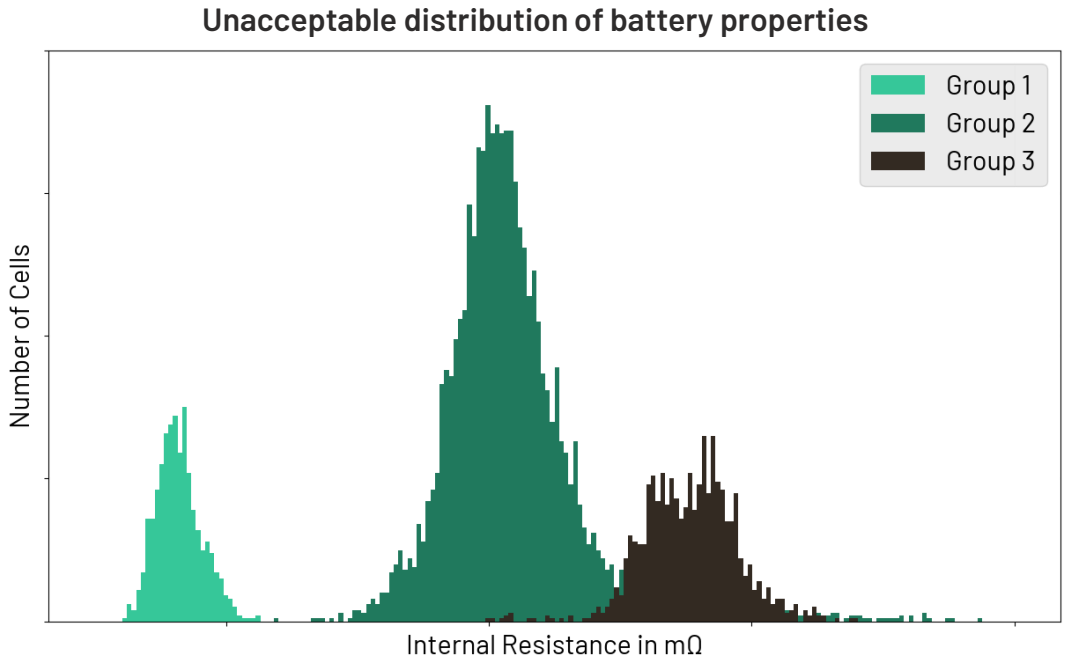
Contracting | Factory Acceptance Testing | **Commissioning** | Operations

Analysis

- The data showed batteries from three distinct production batches. There was a >30% internal resistance spread between batches.
- This dramatic difference in quality leads to imbalance and accelerated aging.

Solution

- The EPC added more containers worth >$5m to reach the specified capacity and power



REAL-WORLD EXAMPLES: OPERATIONS

Incorrect SOC calculations lead to mismanagement of target SOC and permanent unused potential of 21 MWh on site level.

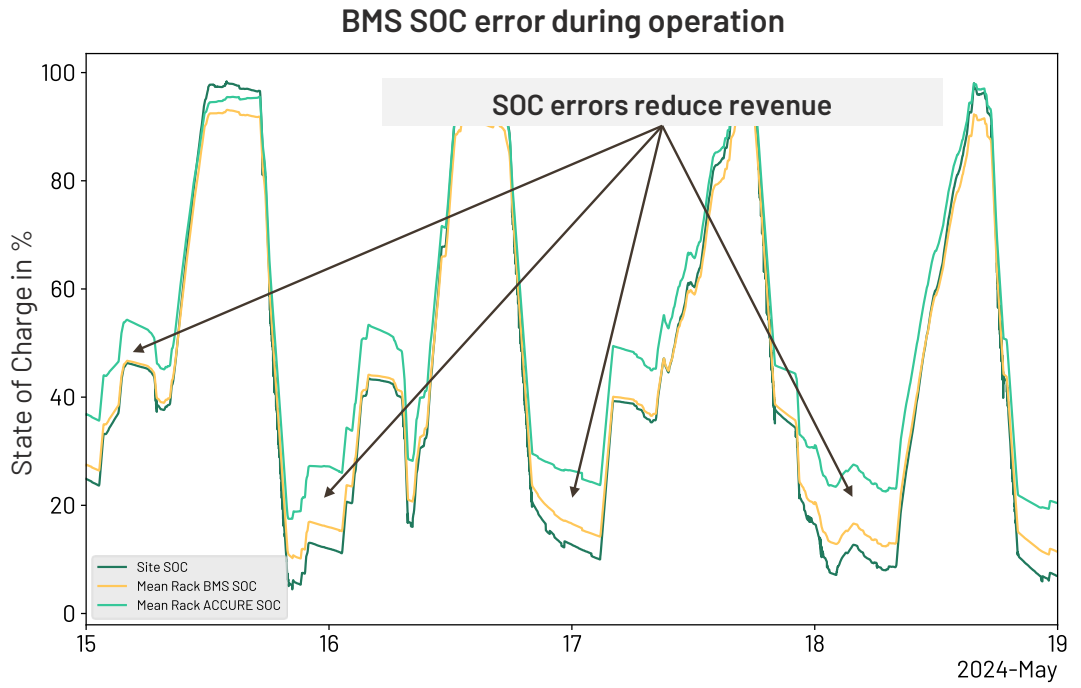
Contracting | Factory Acceptance Testing | Commissioning | **Operations**

Analysis

- An LFP-based BESS showed persistent SOC errors leading to 21 MWh of stranded energy

Solution

- Targeted calibration and strategic cycling recovered 8 MWh
- Automated SOC correction will unlock additional 10-13 MWh



OTHER RISKS IN EARLY PHASES OF BESS PROJECTS

Risks and challenges continued: Many other topics need to be considered in the early phases of a BESS project to ensure maximized revenue streams.

Data logging

- Define how missed data is handled
- Set reasonable data requirements

Data ownership

- Own and control system data
- Ensure full lifecycle access

SOC accuracy guarantee

- Push for SOC accuracy guarantees
- Avoid restrictive conditions

Maintenance

- Require preventative not reactive
- Approve timing around revenue spikes

Performance guarantee

- Demand clear testable terms
- Align with your use case
- Include flexibility

Liquidated damages (LDs)

- Define LDs tightly
- Watch for caps and carve outs

Balancing definition

- Insist on clear balancing procedures
- Define how balancing impacts availability and performance tests

Many, many more...

- Cell grading/batching
- Deductibles
- Reporting rates
- Excuse events
- Etc.

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VALUE ALONG THE BATTERY JOURNEY

We're your partner combining data, software, and deep expertise to support you throughout your battery journey.

Engineering Services
Choose the right vendor and bring clarity to your contracts

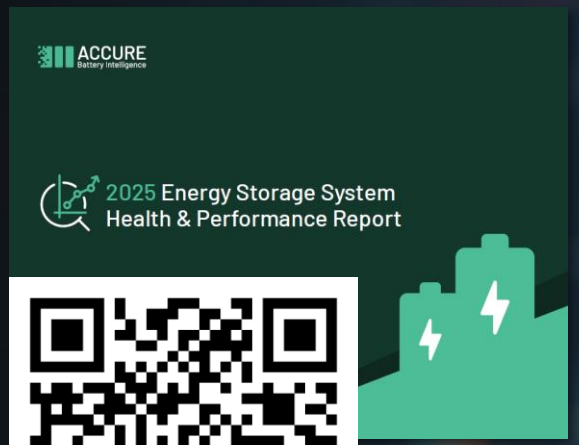
Commissioning Support
Pinpoint problems to protect timelines in FAT & SAT

Augmentation Support
Long term success demands strategic adaptability

Project Management
Use templates to keep track of your project progress

Operation & Maintenance Task Management
Keep track of open tasks and share relevant info with external teams

Monitoring & Asset Management
Automated alerts and reports let you know when and what to do



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Thank you.

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