



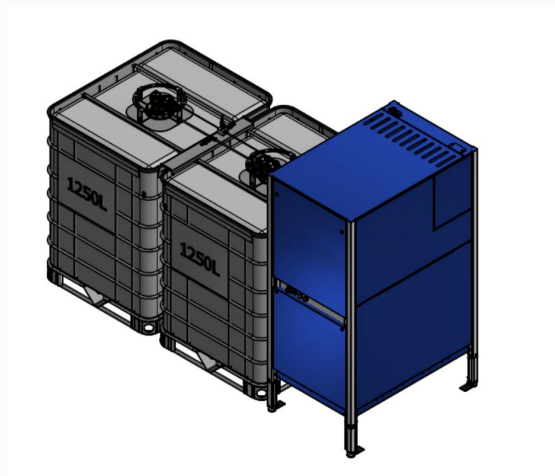
Agenda

- **Intro flow batteries and Bryte**
- **Analysis of PV production and energy consumption in building**
- **LCOS flow batteries vs. other technologies**
- **Q & A**

Flow Batteries

Bryte Batteries follow a modular approach for easy scalability, to meet any large scale energy storage requirements.

Batteries can be placed inside or outside buildings.



10 kW 50 kWh indoor setup



60 kW 350 kWh / 20-foot container



R. Kjeldsberg Property Mgt.

- Norway's first flow battery installation
- Pilot project with R. Kjeldsberg and NTNU
- Mainly installed for peak-shaving
- Smart charging with use of Bryte's EMS

Case: Construction City



PV production vs. energy consumption

Sample graph

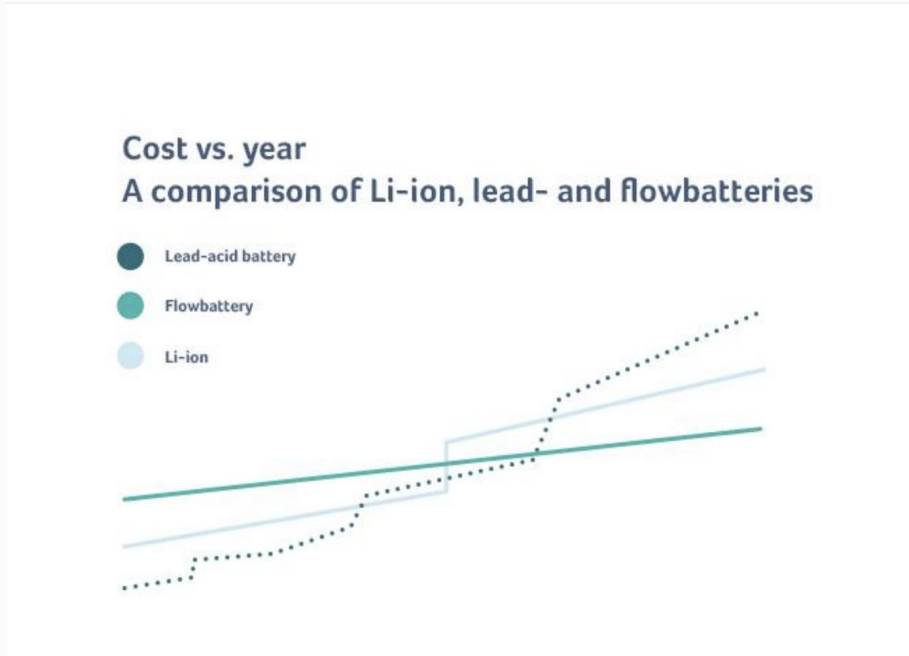
PV production vs. energy consumption

Sample graph

Why battery?

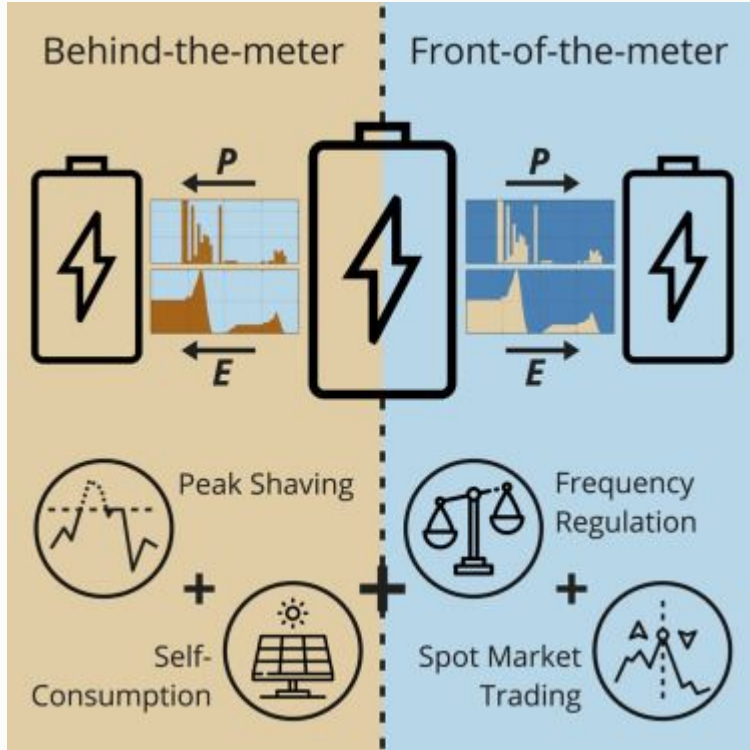
- **Energy saving/efficiency measures**
 - Local energy production
 - Thermal flexibility
 - *Battery*
- **Changes in power consumption patterns.**
- **Peak shaving, PV maximisation and optimisation, local in-house EV charging, etc.**
- **Grid support in future grid.**

LCOS



- 20 000 full charge / discharge cycles
- Equals to thruput of 15 MWh+ for every installed kWh over expected lifetime.
- Easy and cost effective to refurbish / recycle, with high salvage value.
- Leads to low expected LCOS.
- Bryte will deliver with 20 year guarantee as part of O&M agreement.

Battery Compound Value



- Low LCOS (necessarily) depends on total number of full cycles.
- Maximise value of every cycle.
- Asset management front-of-meter: Flex-markets and frequency response. (frequency response time < 20 ms.)
- Behind-the-meter optimization.
- High probability for decent ROI combined with operational reliability



The Team



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