

Intro Slides

Tesla Grid-Forming Deployed and Operating Globally

Across Grid-Tied, Utility-Scale Projects

As of March 2026:

3.21 GW **7.52** GWh



NM, USA
USA

Shallow Basket

50 MW

200 MWh
MWh

Commissioned 2025
Grid-Forming 2025



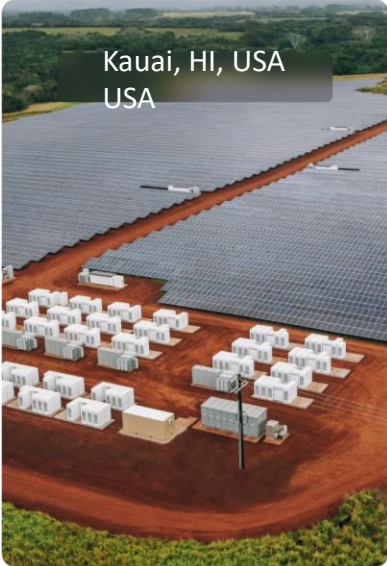
NSW, AUS

Hornsdale

150 MW

193 MWh

Commissioned 2017, Expanded 2020
Grid-Forming 2022



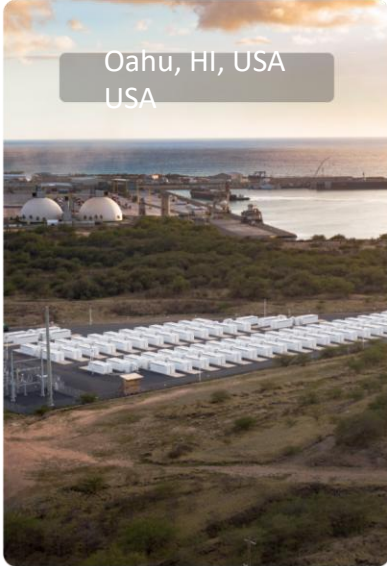
Kauai, HI, USA
USA

KIUC

13 MW

52 MWh

Commissioned 2017
Grid-Forming 2018



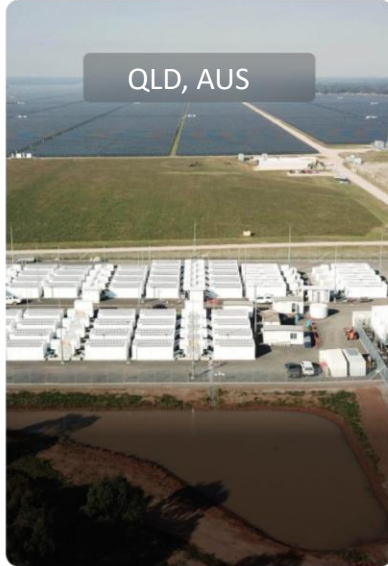
Oahu, HI, USA
USA

KES

185 MW

565 MWh

Commissioned 2023
Grid-Forming & Blackstart 2023



QLD, AUS

Western Downs 1 & 2

510 MW

1020 MWh

Commissioned 2025
Grid-Forming 2025

Tesla Projects for i2X Discussion

Takeaway: Multiple utility-scale grid-forming projects (>350MW) already operational in the Continental, Western United States, following ad-hoc switch from grid-following to address grid stability issues

All Projects Have Similar Background

- Location: Continental, Western United States
- Size: > 100MW BESS
- Commercial Operation: 2025, 2026
- Solar? Yes, all co-located or hybrid
- Why GFM?: Low SCR
 - High penetration of IBRs in the area

All Projects Followed Similar Pattern

1. Original Design: Grid-Following
2. Change at Commissioning: Switch to Grid-Forming to address low SCR related issues.
3. Next Steps: Planning/interconnection studies underway for permanent Grid-Forming approval. Requirements for Grid-Forming underway.



**Megapacks pictured not from project discussed on this slide*

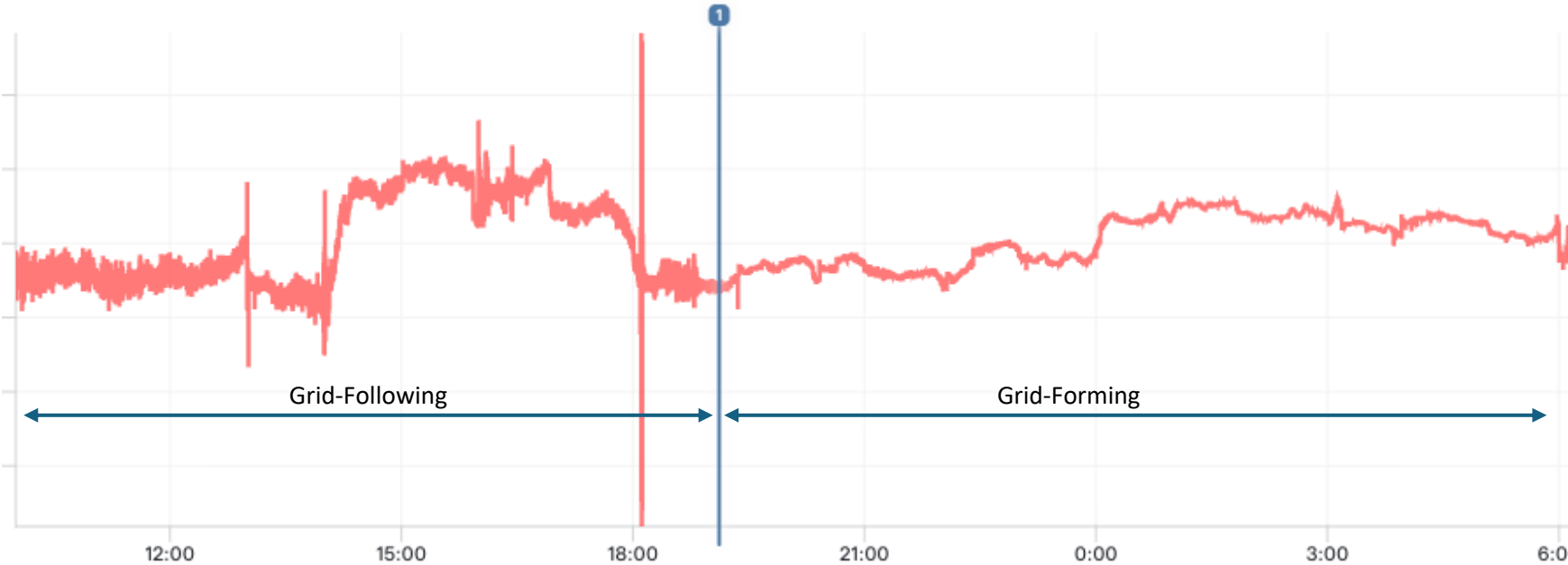
Question Slides

Any special considerations at commissioning?

“Piloting” grid-forming behavior

- Real-time switching can be enabled via software
- 100% of projects that have tested it, left it permanently enabled.

Tesla Controls: On-site Voltage Responses during Grid-Following to Grid-Forming

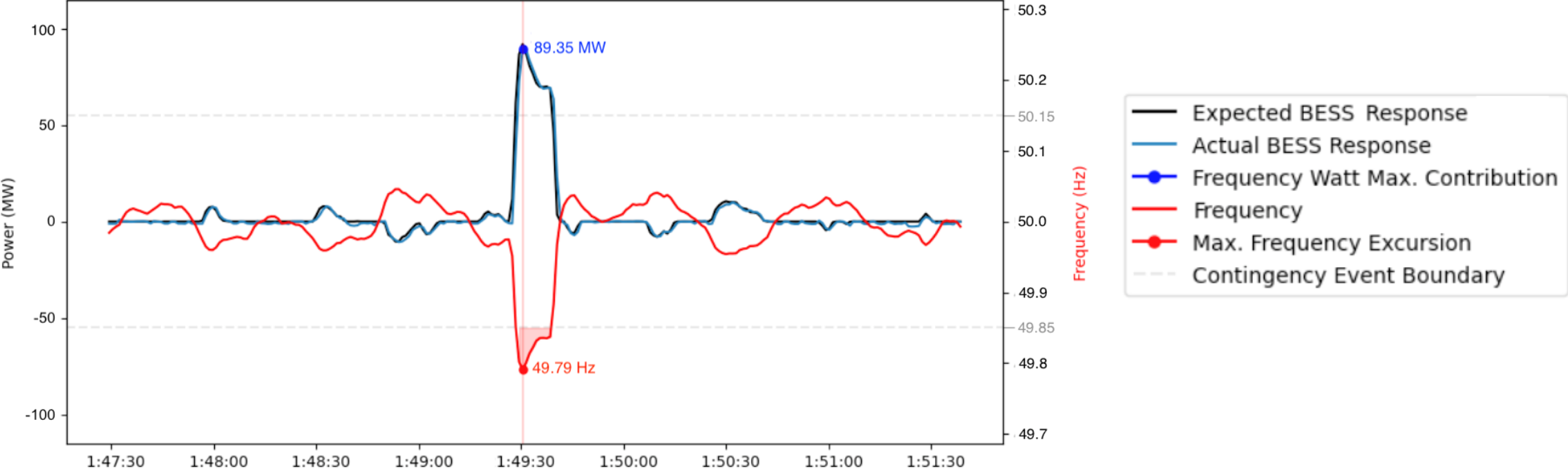


- Low SCR oscillations reduced when grid-forming enabled

**Are there any post commissioning performance assessments?
Have the plant performed as expected during the events? How do you know?**

Benchmarking: For reliable grid-planning, modelled behavior must accurately match actual plant output.

Tesla Controls: Expected (PSCAD) vs. Actual Plant Behavior During Grid Frequency Event in Australia

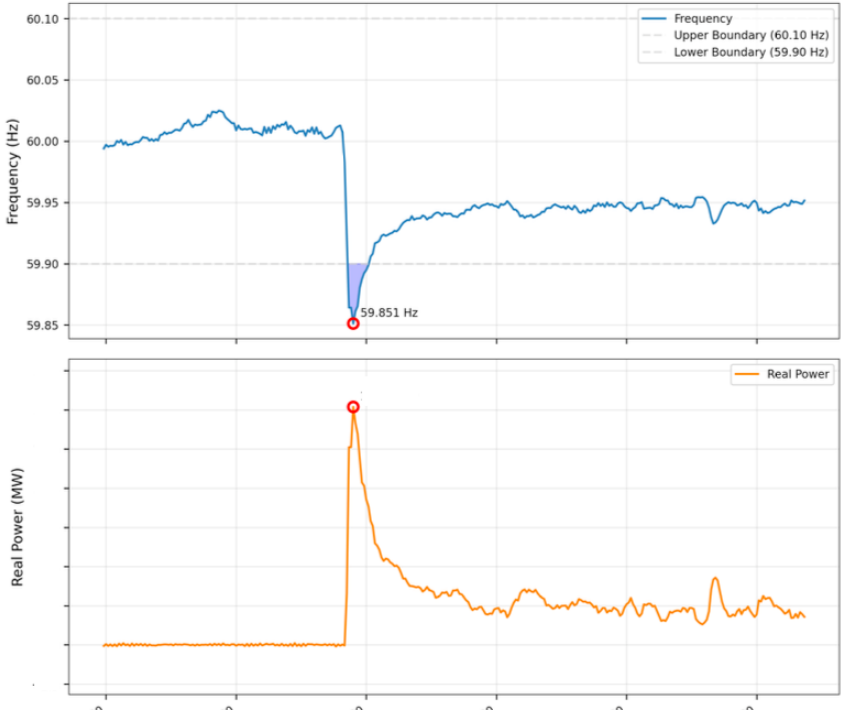


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Have the plant performed as expected during the events? How do you know?**

US Industry Practice: Hybrid & co-located sites commonly rely on non-Tesla control such as a power plant controller (PPC) for response to frequency & voltage which vary widely in performance

Non-Tesla Controls: Plant Behavior During Recent Grid Frequency Event in US

Excellent Response



???



BESS Manufacturer likely not the only party responsible for plant behavior

- Post commissioning performance is critical for the success of the grid (Grid-Following or Grid-Forming)
- Enforcement of mandatory behaviors in lacking the US (NERC MOD 27) No enforcement leads to poor behavior.