

Synergy Unique BESS Operating Models

26 August 2026





Acknowledgement of Country

Synergy acknowledges the Traditional Owners of the Land on which we operate and their continuing connection to the land, water and community. We pay our respects to all Aboriginal and Torres Strait Islander communities, their cultures and to Elders past and present.

Overview of Synergy's BESS portfolio

Operating models in practice

Evolution of Synergy's approach

Comparison: advantages and challenges

We're the catalyst for an energy system that best serves the lives of our customers and communities



WA's largest
electricity generator
and energy retailer



1.2 million+
electricity customers



Generate
~5,000 GWh
of electricity p.a.



Workforce of 1,250+
employees
and contractors



¹ Owned and operated by Bright Energy Investments (BEI).

² Provides electricity solely to Coral Bay. Does not feed electricity into the SWIS.

³ Provides electricity solely to Hopetoun. Does not feed electricity into the SWIS.

Expanding our battery capacity



KBESS1

- 2022–23 \$168 million
 - **100 MW / 200 MWh**
 - EPCM contract to NHOA
 - Energy and FCESS
-
- CATL EnerOne Plus × 64
 - PE Freemaq PCSK × 32



KBESS2

- 2023–24 \$660 million
 - **225 MW / 900 MWh**
 - EPC – Synergy & GHD engineering, Genus construction
 - Energy and FCESS
-
- CATL EnerC+ × 288
 - PE Freemaq PCSM × 72



CBESS

- 2023–25 \$1.65 billion
 - **500 MW / 2,400 MWh**
 - EPC – Synergy & GHD engineering, SCEE construction
 - Energy and FCESS
-
- CATL EnerC+ × 720
 - PE Freemaq PCSM × 180

Asset	EPC	330 kV Switchyard	BESS Yard	OEM interface and control system integrator	Operating model
KBESS1	Third-party	Synergy operated	Third-party operated	Third-party operator	Hybrid operational interface
KBESS2	Synergy - IPMT	Synergy operated	Synergy operated	Synergy	Integrated Synergy operated model
CBESS	Synergy - IPMT	Third-party operated	Third-party operated	Synergy	Third-party operations model

How did we get here?

KBESS1

First BESS asset in the WEM

- 2020 Whole of System Plan identified the need for large-scale storage in the SWIS.
- KBESS1 (100 MW / 200 MWh) commissioned in September 2023.
- BESS introduced new operational risks compared with traditional thermal generation.
- An EPC/EPCM approach provided specialist expertise and reduced early-stage risk.
- A hybrid operating model supported capability development within Synergy.



KBESS2 and CBESS

Big and Bigger, Fast and Faster

- WA Government coal retirement announcement on Synergy assets accelerated utility-scale storage deployment across the SWIS.
- Rising global demand for batteries and PCS increased costs and extended delivery lead times.
- Building on KBESS1 experience, Synergy adopted a direct procurement and integration model rather than a traditional EPCM approach.
- Critical equipment procured directly via competitive tender:
 - Power Electronics – Gen3 PCSM
 - CATL – EnerC+
- Enabled parallel delivery of two major BESS projects:
 - KBESS2 – 225 MW / 900 MWh (COD March 2025)
 - CBESS – 500 MW / 2,000 MWh (COD December 2025)
- Delivered greater control of cost, schedule and technical outcomes while accelerating internal BESS capability development.



Performance of each model

Comparing three BESS operating models

Capability / Outcome	KBESS1 Hybrid Model	KBESS2 Integrated Synergy Model	CBESS Third-Party Operations
Operational Control			
OEM Access			
Data Visibility			
Internal capability			
Knowledge Retention			
Scalability			
Resource Requirement			
Contract Management			
Value Optimisation Potential			
Operational Intelligence			
Strength Balanced Trade-off Key consideration			

When Does Each Model NOT Work Best?

ALL CHIPS IN (INTEGRATED)



ASSET OWNER
MARKET OPTIMISATION
OPERATIONS
MAINTENANCE

Owns the asset, operates it, maintains it, and captures all risks and rewards.

FULL CONTROL, FULL RISK, FULL REWARD

HEDGING THE BET (HYBRID)



OWNER (STRATEGIC CONTROL)
SERVICE PARTNER (OPERATIONAL EXPERTISE)

Responsibilities and risk are shared. Owner retains strategic control while leveraging third-party expertise.

SHARED RISK, SHARED EXPERTISE

BACKING THE EXPERT (THIRD-PARTY OPERATIONS)



OPERATIONS AGREEMENT

Owner retains ownership while a specialist operator manages day-to-day operations and optimisation.

OWNERSHIP WITHOUT DIRECT OPERATION

No operating model is universally superior. The optimal model depends on the balance between control, capability development, scalability and value optimisation.

Thank you
