Leading the transition: Synergy's role in advancing behind-the-meter interoperability

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Synergy in a snapshot

WA's largest
electricity generator
and energy retailer

1.1 million +
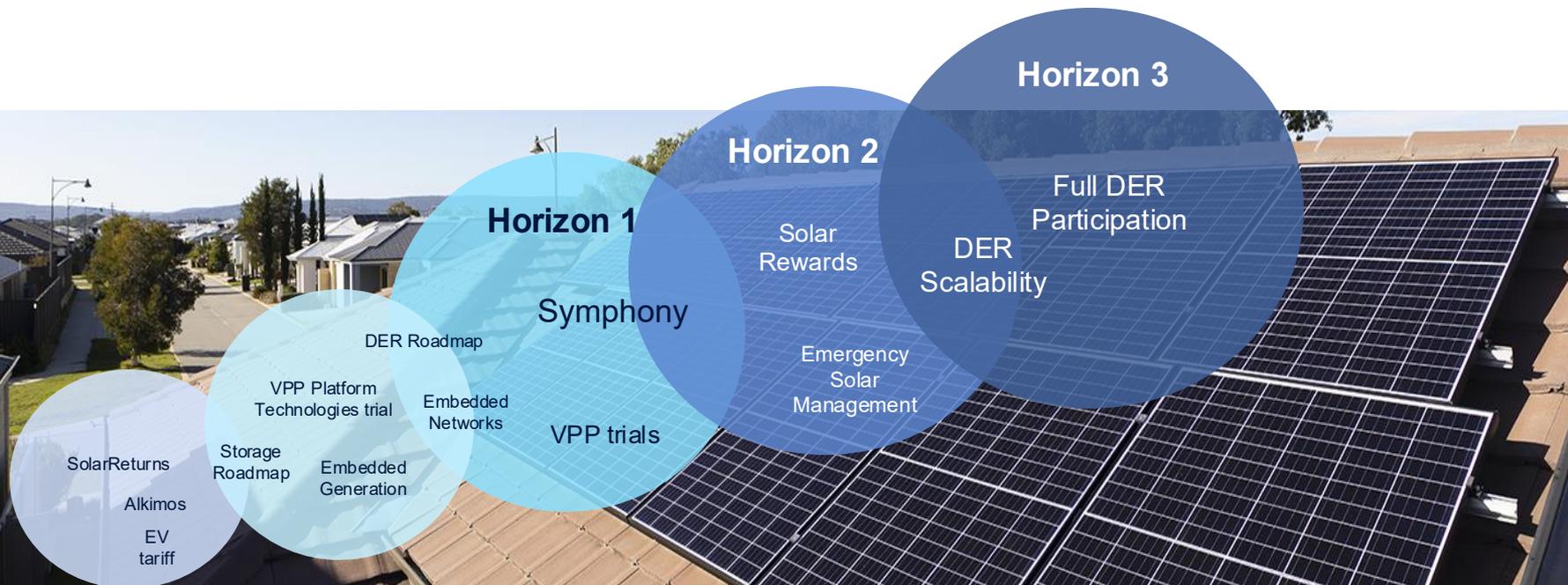electricity customers

Generate
~6,500 GWh
of electricity p.a

Workforce of 1,500+
employees
and contractors

Coral Bay [2]

WESTERN AUSTRALIA

- South West Interconnected System
- Coal-fired power station
- Gas-fired power station
- Wind farm
- Solar farm
- Utilty-scale battery energy storage system
- Under construction
- Under development
- EV charging station

Kalbarri

Mungara

Greenough River (BEI) [1]

Warradarge (BEI) [1]

Kalgoorlie

Pinjar

King Rocks

PERTH
Cockburn
Kwinana

Hopetoun [3]

Collie
Muja

Bremer Bay

Albany Grasmere (BEI) [1]

[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.
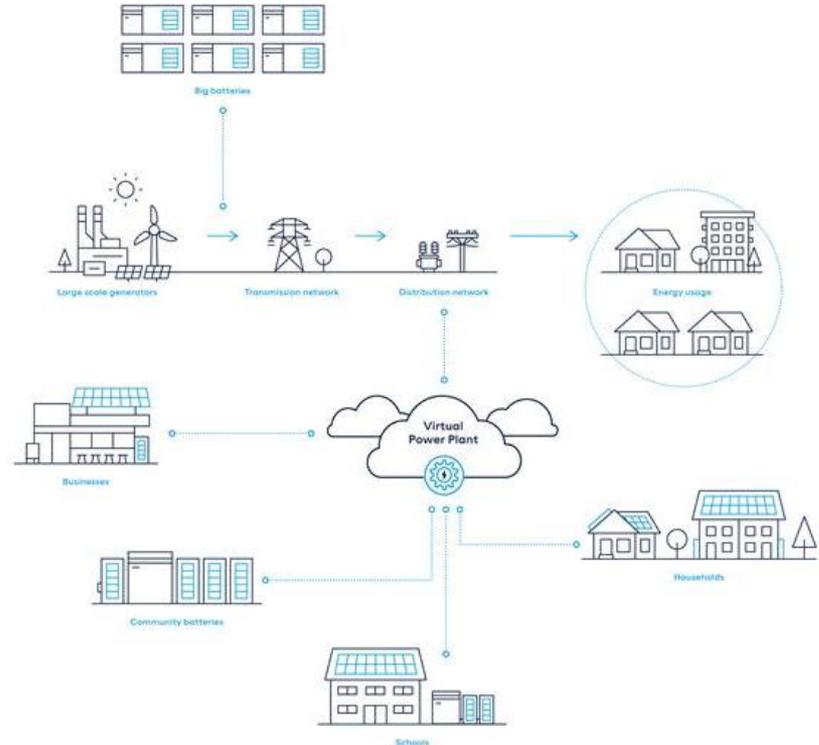
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Our DER journey

Each project provides **building blocks** with interlocking benefits that leads the pathway to **WA's decentralised energy future**.

Horizon 1

Symphony

DER Roadmap

VPP Platform Technologies trial

Embedded Networks

VPP trials

Storage Roadmap

Embedded Generation

SolarReturns

Alkimos

EV tariff

Horizon 2

Solar Rewards

Emergency Solar Management

Horizon 3

Full DER Participation

DER Scalability

Project Symphony – Blueprint for DER aggregation

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Innovative pilot completed in 2023.

DER such as rooftop solar, batteries, and select appliances managed as a VPP.

Project Symphony findings confirmed the value of VPPs in the SWIS and gave a glimpse of a future where the full capabilities of DER can be realised.

Project Jupiter – Taking the blueprint into practice

Commencing in 2025, Project Jupiter is a three-year initiative to integrate DER at scale within the SWIS without compromising system reliability and security.

Synergy partnership alongside Western Power, AEMO and EPWA, and funded by ARENA.

Project Jupiter will be the first live DER marketplace that's integrated with the WA Wholesale Electricity Market

Builds on the recommendations and learning from Project Symphony and other initiatives.

The project will accelerate opportunities for WA households to join Virtual Power Plant products.

Project Symphony demonstrated how DER devices can deliver value to the system, market and WA customers.

Project Jupiter will build on this success to demonstrate commercial VPP operation at scale.

V1.3/ Storage Setpoint Controls

- CSIP-Aus first use cases were to address DNSPs with a focus on site and device level limit controls.

- As adoption has increased over time, CSIP-Aus has been identified as providing most of the required foundational capabilities, to allow for use in other context/use cases.

- A minimal set of incremental optional capabilities to the CSIP-Aus have been developed to unlock use cases for remote management of storage assets
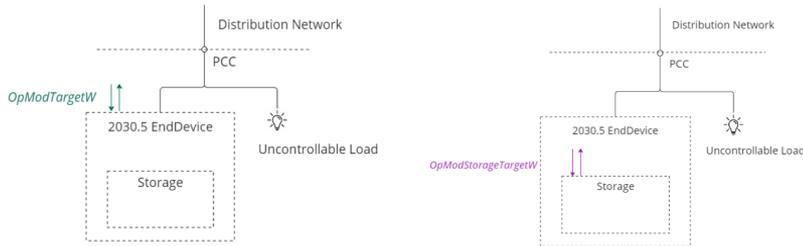
OpModTargetW is a coarser control that does not specify behaviour for storage components but a net outcome from EndDevice that may include other DER.

OpModStorageTargetW is a more granular control that that specifies targets for storage components within the EndDevice. Other components e.g. solar PV within the EndDevice can continue to operate unconstrained.

V1.3/ Storage Setpoint Controls

Principles and Considerations

Principles

- Be a minimal specification – only including functionality required to deliver these use cases.

- Provide a clear and consistent implementation approach, that minimises required external context i.e. server operators should be able to remotely manage storage assets to deliver energy services completely over the wire.

- interactions and increase flexibility for implementer Utilise clear context boundaries, abstracting unnecessary details from the server to simplify servers.

Other notes

- Other more advanced services (FCAS/FCESS) were classified as out of scope.

- With consideration for CSIP-AUS DOE capabilities, the solution needed to facilitate execution of storage controls in conjunction with site-based DOEs.

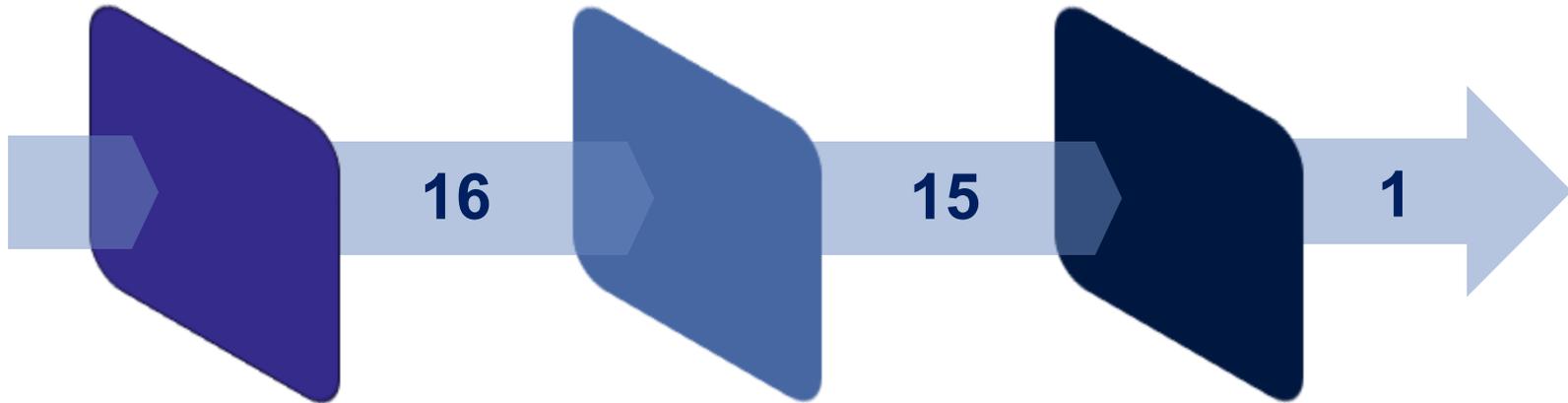# Technology provider listing – Current status

Jul 2025 — Manual process in onboarding Technology Providers — Oct 2025

 # Technology Providers currently in Testing

# of Technology Providers 'Provisionally Listed'

# of Technology Providers 'Activation Ready'

16

15

1

Project CEVI

- EVs and chargers (EVSE) are emerging as critical behind-the-meter (BTM) assets, with potential to support grid stability and customer value.

- Project CEVI extends Synergy's BTM interoperability framework (CSIP-Aus) to include EVs and EVSE, using the open, widely adopted OCPP protocol for integration.

- CSIRO is developing a CSIP-OCPP bridge to enable seamless, standards-based communication between EVSE and Synergy's systems for remote management.

- The solution supports scalable BTM orchestration and is tailored to WA's unique grid and regulatory environment.

Enhancing value through consistency and alignment

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Aligning with national DER remote management approach.

Synergy is adopting CSIP-Aus as the preferred standard for remote management of all DER.

The adoption of CSIP-Aus will enable us to enhance our existing ESM program.

Improved remote management enables us to create value for customers through innovative products.

Synergy has developed resources for industry which outline our remote management requirements.

Thank you

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