

Let's talk about a consistent approach to flexible resources

The Smart Connect initiative in Australia shows what a nationally consistent approach to consumer energy resource (CER) integration can achieve. It's the kind of conversation we should be having in Aotearoa New Zealand.

Consumer energy resources - solar, batteries, space and water heating, electric vehicles, pumps and other electric devices - are also flexible resources. Their owners benefit from the "flexiness" with more control over their bills and resilience in the face of outages. The wider community and economy can also benefit if the resources are integrated into the power system and market.

The word integration is doing a lot of heavy lifting, and will mean different things to different people... keeping things simple, let's say it broadly means an asset or resource is able to easily and routinely hear and respond to system and market signals (Feel free to let us know your preferred 1-line definition).

Why Smart Connect matters....

The initiative emerged because progress toward effective CER integration in Australia was ad hoc and fragmented across jurisdictions. This slowed down innovation and added unnecessary complexity for the system and market operator, electricity distributors and retailers, OEMs, installers, and households.

It was launched initially to align industry and government to deliver a consistent rollout of two major programmes: the NSW Emergency Backstop Mechanism and WA Residential Battery Scheme for CER. At the same time, Smart Connect, mapped the future functional requirements needed to operationalise CER integration and highlighted key activity and coordination gaps across the industry:

- **Hardware Function** – CEE assets operate consistently in line with specified behaviour.
- **Communications** – CER assets are able to communicate on site and remote systems in a standard and scalable manner.
- **Registration** – CER assets can be simply registered centrally with a high level of quality and mechanisms for records to be maintained up to date.
- **Data Exchange** – CER data can be exchanged between actors to enable interoperability and access for customers to optimise their investment.
- **Service Enablement** – CER assets can be aggregated to provide network and market services where customers opt in.

There is work underway in Aotearoa New Zealand on various aspects of these same functional requirements to integrate customer and flexible resources. This work also supports steps in FlexForum's [Flexibility Plan 2.0](#) - a checklist of tasks and actions to make flexibility easy and routine for households, businesses and communities.

- **Hardware function.** For example, EECA has published white lists for [EV chargers](#) and [solar products](#) which meet minimum technical specifications. It is developing technical guidance for heat pumps and water heating systems. These and other activities are helping to deliver [Flexibility Plan](#) steps #19 and #20.
- **Communications.** FlexTalk, FlexTalk 2.0 and several projects now getting underway are providing experience with making device to market and system communication easy and routine (the term interoperable is probably involved)... helping to deliver steps #35, 36, 37, 38 and 39.
- **Registration.** Integration relies on a flexible device (and its owner and users) being on the record. Just like how key details for each connection point are on the record in the registry. Step #28 involves including flex resources in a registry, so they are knowable to the system and market.
- **Data exchange.** Efficient use of flexible resources across the system and market requires the owners, coordinators and users of these resources to use open and consistent data exchange mechanisms or the message will not get through easily or routinely. Relevant steps are #35, 36, 37, 38 and 39.
- **Service enablement.** Another term for service enablement is signal. Efficient use of flexible resources for market and off-market use cases requires consistent signals to request or trigger the desired flexible response. Work underway like LocalFlex and EECA's scaled flexibility pilots project is providing experience, and helping to deliver steps #10, 35 and 37.

New Zealand would benefit from undertaking a similar exercise to Smart Connect to enable coordinated, step-change collaboration across the sector. This will serve people and the whole system far better than optimising a specific process or solution alone.

FlexForum will be doing its part by kicking off some of these conversations at Flex Day 2026 in October and at a pre Flex Day workshop (these are Member events).

You can read more about Smart Connect on the ARENA website:

<https://arena.gov.au/knowledge-innovation/smart-connect-initiative/>