[Skip to Content](https://arena.gov.au/projects/advanced-vpp-grid-integration/#main)

Top of Form

**Advanced VPP grid integration**

* <https://arena.gov.au/projects/advanced-vpp-grid-integration/>

**$1.03m** Funded by ARENA

**$2.48m** Total project cost

* **Lead Organisation** SA Power Networks

**Location** South Australia

* **Start Date** January 2019
* **Project Partners** Tesla Motors Australia, CSIRO

**Summary**

The Advanced VPP Grid Integration project aims to show how higher levels of energy exports to the grid from customer solar and battery systems can be enabled through dynamic, rather than fixed, export limits, and to test the value this can create for customers and Virtual Power Plant (VPP) operators.

**How the project works**

The Advanced VPP grid integration project will introduce an interface (API) to exchange real-time and locational data on distribution network constraints between [SA Power Networks](http://energymining.sa.gov.au/latest_updates/virtual_power_plant_is_powering_forward) and the Tesla South Australian VPP, enabling the VPP to optimise its output to make use of available network capacity. This concept will be tested in a field trial over 12-months. Read more about [distributed energy resources](https://arena.gov.au/renewable-energy/distributed-energy/).

**Area of innovation**

Recent work by the Australian Energy Market Commission, and the joint Energy Networks Australia/Australian Energy Market Operator Open Energy Networks project has recognised the dynamic management of distribution network capacity is a key requirement to unlock the full value of VPPs and other distributed energy resources. This project will be the first to demonstrate this concept in operation with a real VPP that is actively participating in the market, and to seek to measure the real-world costs and benefits of this approach.

**Benefit**

The intention is to enable the VPP to operate at higher levels of export power than would otherwise be allowed under normal fixed per-site export limits. In principle, this could double the VPP’s maximum export capacity at certain times, enabling the VPP to provide greater market and system-wide benefits. The learnings from this project could help develop a consistent national approach, and potentially a standard API, for VPP aggregators to access advanced network integration services from distribution networks across the National Electricity Market.