

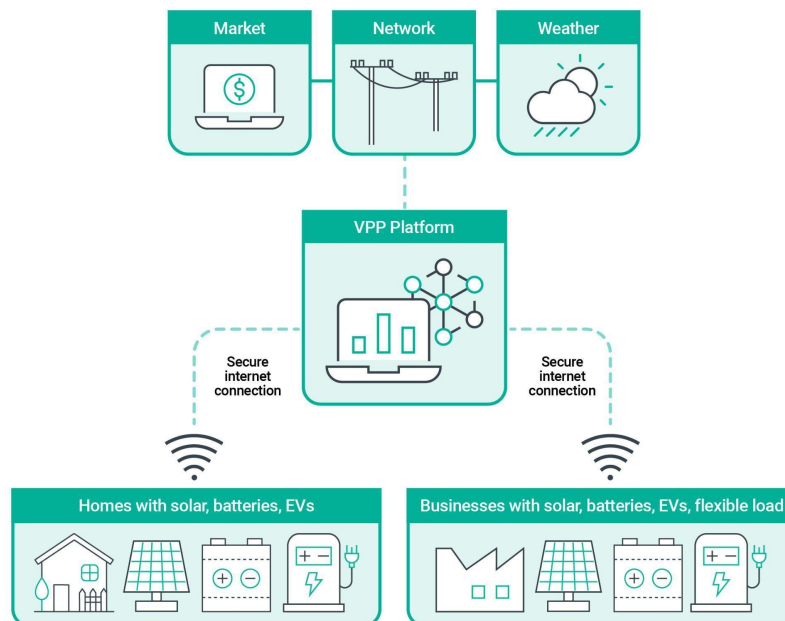
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Virtual power plants to reduce energy bills for rural and regional Australia

Australia can reduce energy bills and increase skilled jobs by helping households and businesses to take control of their electricity.

The way to save money on electricity is to coordinate on-site generation and consumption, and export to the grid as part of a virtual power plant (VPP).

How a Virtual Power Plant works



VPPs help to make the best use of existing assets (like distribution networks) which reduces the need for new infrastructure investment. VPPs give customers access to the most lucrative parts of the energy market. They also allow businesses to take advantage of lower cost renewable power purchase agreements (PPAs). This can reduce the need for additional electricity transmission and large-scale energy storage and can make Renewable Energy Zones (REZs) more efficient through coordination of network assets.

SwitchDin supports the development of flexibility services platforms to help businesses access lower cost renewable PPAs by optimising offtake agreements with the needs and capabilities of the customer. This would reduce the need for generators to provide firming, which would lower PPA costs. By matching flexible load with variable generation, the cost of network investment can also be reduced. Rural and regional businesses that would benefit from taking advantage of untapped opportunities in load flexibility include water and sewerage authorities, data centres, agriculture, irrigation, shopping centres and commercial precincts.

We are calling on Governments to develop a technology investment program to ensure that customer and network assets incorporate the latest communications and information technology needed to utilise flexibility platforms and engage in VPPs. The program would invest in embedding intelligence into rooftop solar, batteries, home energy systems and electricity distribution networks. It would enhance the local skills base and improve employment opportunities in electrical trades, technology and the renewable energy industry.

With Government support for the enabling platforms and technology, VPPs will allow households and businesses to access untapped value of their generation and load flexibility and make the most of local opportunities. VPPs using flexible generation and load offer important opportunities to improve energy performance across Australia by:

- optimising customer load, generation and storage assets behind the meter,
- harnessing multiple batteries to act together,
- enabling provision of market services by flexible load,
- facilitating lower cost PPAs by tapping into the latent value of flexibility in generation and load,
- supporting interoperability and integration of customer and network assets, and
- connecting community batteries with networks and customers.