

SOLAR HOTSPOTS PROGRAM

Between March and June 2021, dedicated crews will be active in nine areas of the Powercor network where solar demand is greater than our network capacity. Their aim is to help an estimated 50,000 current and potential homes with rooftop solar to achieve greater results.

This forms an essential step in a broader program of works to help our customers make the most of their investment in solar.

Project history

Over the past 10 years, the rapid uptake of solar panels has led us to increase our network's capacity to move electricity both to and from homes and businesses. In 2020, we saw a 13% increase in the number of households with solar connections from 133,401 to 150,116. This means about one in every five homes connected to the Powercor network is now generating solar energy.

The challenge is to make sure that while accommodating excess energy from rooftop solar, we continue to provide the high standards of reliability and power quality all our customers expect.

As a regulated business, Powercor's proposed investments are approved by the Australian Energy Regulator (AER) every five years. For the next regulatory period (July 2021-2026), we will undertake an extensive program of works to develop our network to enable more customers to connect solar, electric vehicles and batteries.

In the meantime, we have brought forward these works in nine (9) areas which have an immediate need to support customer installations.

Current customer demand

Rooftop solar is an increasingly popular energy choice for customers wanting to save money or reduce their environmental footprint. The hotspot areas within our network are regions where there is a high rate of new residential housing developments and/or a local climate that makes solar attractive.

These include regional centres such as Ballarat, Bendigo and Portland as well as the precinct between Sunshine and Point Cook in Melbourne's western suburbs. Over 148,000

customers live in these postcodes and in some, the average number of solar connections is greater than one in three homes.

We do not prevent customers from installing rooftop solar.

However, we have a responsibility to all our customers to make sure any excess electricity generated by rooftop solar can be safely exported into our network.

Improving network capacity

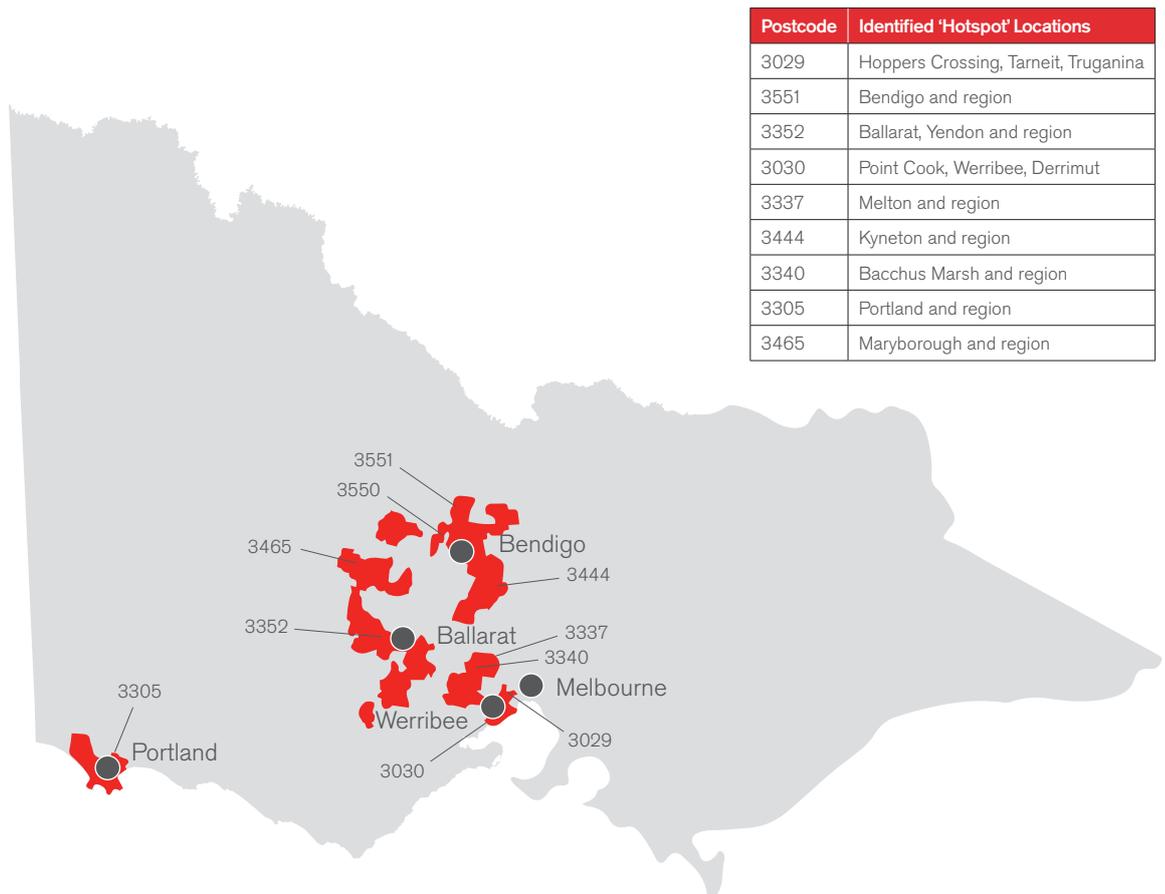
Beginning in February, dedicated field crews will be working on up to 30 locations a week to improve the network's capacity and manage the electrical voltage that flows through the powerlines.

This includes working on the poles and wires to make sure the voltage is well balanced across all the powerlines (known as low voltage phase balancing) and changing the settings on major transformers in our zone substations to reduce the overall voltage levels (known as transformer tap changes).

The locations for this work have been identified through an analysis of smart meter data which tells us exactly where we need to act to improve results for customers.

We estimate that as a result of this work, approximately 50,000 current or potential solar customers within the hotspot suburbs and surrounding regions will be able to get more value from their solar systems.

By July, we expect an increase in both the number of existing solar customers able to export 5kW unconstrained and in the rate of export pre-approvals for new solar installations.



The link between solar exports and voltage

Solar exports can affect the quality of power supplied by our networks because by injecting electricity, they impact on voltage. This potentially impacts other customers including those without solar PV.

We are required to maintain the network voltage within a narrow window of between 216V and 253V. Anything lower can lead to 'brown outs' or difficulties in starting up sensitive appliances

like pool pumps and air conditioners. Anything higher can lead to power surges and 'trip' solar systems.

That is why customers are encouraged to contact us for a free technical assessment to see if exports from a proposed new rooftop solar system will affect the power received by other people in their community.

What comes next

The future of energy is being driven by customer choices and as the owner and operator of the electricity distribution network, we have a big role in enabling them. Solar, electric vehicles, batteries and energy trading are among the new ways of generating, using and transporting electricity for homes and businesses.

In addition to the solar hotspot program, we are accelerating the development of a Dynamic Voltage Management System for Powercor. This is a quick and cost-effective way of lowering voltage across the network to improve power quality and accommodate more renewable energy.

Both these initiatives are important foundations for the broader Future Networks package commencing in July 2021. Like the hotspots program, this enables the export capability of solar customers across the whole network but also uses meter data and advanced network technology to improve customer services and the quality of power distributed.

Our networks are also at the forefront of finding innovative ways to support this energy transition through projects and trials investigating community batteries, smart charging for electric vehicles, and microgrids and other community energy projects.

About Powercor

Powercor distributes electricity to 843,525 customers across the western suburbs of Melbourne and through central and western Victoria to the South Australian and New South Wales borders. Electricity is distributed in the region via a network comprising over 89,921 kilometres of wires, supported by more than 577,420 poles and associated infrastructure.

Our teams operate from 13 depots, our Bendigo-based customer contact centre and our CBD headquarters, to deliver reliable, safe and affordable electricity by operating, managing and maintaining all network assets and metering services. This means managing a network that is reliable and safe, particularly in relation to bushfire risks.