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Residential solar PV system purchasing checklist



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Thinking about going solar? This checklist is here to guide you through the important things to consider before choosing and installing a solar PV system. It will help you make sure you end up with the right solution for your home and lifestyle.

This checklist is based on Appendix A of the Residential solar PV and battery storage systems guideline. For more details, see the full document, available for free download on Standards New Zealand's website.

Is rooftop solar right for you?

Rooftop solar panels don't suit every property. In some cases, a ground-mounted system might be a better option. Here are some things to think about and discuss with your solar installer so they can determine what is most suitable for you:

- 1 Where you live in New Zealand (e.g. near the sea) – think about corrosion.

- 2 Whether your home is in a high wind zone.

- 3 Whether scaffolding will be needed to access your roof from outside. If so, consider who will provide and install it.

- 4 The condition of your roof, and what type of roofing material you have (See Table 5 of the PAS for more info).

See Section 7 of the guidance for more information on rooftop solar (including different roof types), and Section 8 for more information on ground-mounted systems.

Choosing the right size and type of system

- 5 When you use the most electricity during the day and across the week.

- 6 How much electricity you use in a year and what it costs on average.

- 7 Whether there is a professional solar equipment supplier representative located near you. They will need to guide you through the following technological factors:
 - a) Which type and size of solar panels is best suited to your needs.
 - b) Whether you want a grid-connected system or a stand-alone one.
 - c) Whether adding a battery is worth it for your household and lifestyle.

Is your electrical system ready?

If you want to connect your system to the power grid (and sell back excess power), check the following with your installer:

- 8 That the mains cable into your property has enough capacity to send energy back to the grid.
- 9 How many phases exist in your installation, and if there is ripple control.
- 10 If you already have a smart meter that can handle both importing and exporting power. If not, you'll need one installed.
- 11 Whether you have approval from your local electricity network (EDB) to connect. This is normally handled by the installer.

See Sections 9 and 10 of the guidance for more information about grid-tied systems (with or without batteries).

What will it cost to install?

Once you know what type of system you want, get a written quote. Make sure it clearly states what's included and what's not. Consider:

- 12 If you have enough money to pay for the system, or if you will look at a 'green' loan (many banks offer these).
- 13 Check all these potential costs are covered in the quote:
 - a) Scaffolding
 - b) The cost of components including all cabling, inverters, controllers, surge protections, and a specially designed solar panel racking system
 - c) Any necessary roof cladding penetrations (resealing/waterproofing and consenting)
 - d) Battery storage installation (as necessary)
 - e) Electrical installation (the labour), including any EDB applications, possible smart metering installation, and any other regulatory consenting fees)
 - f) Additional electrical segregation of essential circuits necessary for the continuous operation of appliances, devices, and medical equipment (if any) in the event of loss of mains power at the distribution board
 - g) Any potential distribution upgrade requirements
 - h) The cost of installing an import/export meter.

Other things to think about

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| 14 | Talk to your solar specialist about inverter options and their pros and cons. |
| 15 | Understand the warranties for all parts of your system, including panels, inverters, and batteries. |
| 16 | Think about how old solar panels and batteries will be disposed of at the end of their life (E-waste). |

See Table A1 of the guidance for further details on inverter options.