Solar Power

As the price of solar panels has come down, and their efficiency has gone up, installing them has become something of a no-brainer – assuming you have the budget, that is. We put some burning questions to Lightforce's general manager of customers, Joel Bowden.

Interview by Simon Farrell-Green

Here: What does it cost?
Joel Bowden: The main consideration is whether you want a panel-only system or a panel and battery. Panel-only starts at $11,000 including GST, and between $10,000 and $25,000 would capture most panel systems. An entry-level battery is $20,000 to $40,000.

H: Has the price come down or has inflation caught up?
JB: A bit of both. The price of solar came down materially from 2019 and there's more competition in the market.

H: How many panels do I need, and how do I work that out?
JB: It's really about what you want to achieve. About a quarter of our customers are doing it for environmental reasons and they want to offset as much as they can. Most people have a financial tilt on it – so we'll base the size of the system on their daytime and nightly load. The key is getting that balance of generation and consumption right – the closer you get to 100 percent consumption the better. You want to offset the daytime rates as much as possible, but you don't want to do so much that you're exporting to the grid.

H: Why not?
JB: There's an industry term, "the levelised cost of energy", which is the lifetime cost of producing a kilowatt hour of energy. If it costs you 20c per kilowatt hour to produce and you sell it for 17c, it's not a great model. With batteries, we can level that off a bit – but then we need to make sure there's enough generation to power them.

H: Are batteries worth it?
JB: There's two schools of thought. There's an economic argument around keeping what you generate on site – but there is a reasonable payback period. We're seeing another argument for it now, which is resilience – you only need to speak to people in Hawke's Bay who had six to 10 days without power earlier this year. A lot of people don't realise that in the event of an outage, your solar panels drop out too – you can't risk power going back into the grid. But with a hybrid inverter and a battery, your solar will continue to operate.

H: Do you need a consent?
JB: No, you don't. For roof-mounted systems, there's no need for a resource consent or a building consent. You do need approval from your lines company, and there are some specific exclusions, such as character zones or site-specific covenants, which may trigger a consent.

H: When's the best time to do it?
JB: We always look at the condition of the roof. When you're putting on solar, the panels have a warranty of 25-30 years and you don't want to move them – so you might want to think about that first. Other than that, the best time to install solar panels was yesterday. There's been a massive increase in quality and reliability – panel efficiencies are still improving, but we're not seeing the huge increase we used to see.

H: Like laptops in the 90s.
JB: That's a good analogy. The price of panels has come down, but the cost of power is continuing to increase. By some estimates, domestic power bills could double in the next five years due to the investment required in the grid.

H: What's the relationship with EVs?
JB: Many smart chargers can now assess when the best price will be – so with solar, you're either using excess solar production or you're charging at the cheapest time. Eventually – and we're not quite there yet – you'll be able to charge up your car, then use that to power your home.

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