

The home's sustainable features

The key home sustainable features are around use of solar and varied food plantings.

Use of solar

- **5.4kW solar with 5kW/ 10kWh battery.** The battery is CATL, one of the world's leading producers. The inverter settings offer solar self-consumption, battery standby and peak discharge models and modbus connectivity helping future proof it for future retail plans.
- **A smart hot water controller** (NZ made Paladin) means that the main house hot water cylinder is super efficiently uses any excess solar to heat hot water after other house use and before export. It does this by checking constantly if there is any spare power after the house appliances use and then feeding just that much power to the hot water, so that we save more by minimising wasteful import and export. Its settings allow hot water to heat before the battery charges.
- **Timers** used on the house spa and the cottage hot water cylinder are set at different times to each other and when we normally use power to use the solar smartly too. The cottage hot water also has a wetback, so our firewood heats it in winter complementing solar. Firewood for the main house comes entirely from the property too.
- **Solar is shared** with the cottage in a tiny microgrid cutting lines fees.
- **Water** is tank water off the rooves with separate house, cottage and farm supplies

Gardens

- **50+ fruit and nut trees.** across the house, cottage and farm riparian areas. 6 apple varieties, 2 or 3 pear varieties, 4 plum varieties, several lemon varieties (fruiting much of the year), mandarin, limes, kaffir limes, orange, grapefruit (which is surprisingly sweet here), peaches, apricot, peachicot, guava, passionfruit, feijoas, figs, bay leaves, kawakawa (makes tea amongst other uses), blackberry, raspberry, blueberry, tamarillo, hazelnuts and either chestnuts or walnuts (i can't remember which and it's a few more years to wait until it matters!). So with 50 or so fruit trees and our mild climate, there's nearly always something ready to enjoy.
- **6 raised vegetable garden beds.**
- **Perennials** around the place include mint, peppermint, rosemary, lavender, parsley (crazy through winter), rhubarb, perennial spinach, chicory, sage, thyme, lemon grass, Vietnamese mint, chives, coriander, water cress and for those more adventurous a few herbs and wild greens in the fields and regenerating areas.
- **Stock treats.** The garden borders also supply winter/ mid-summer feed for the stock through selective cuttings of the puka puka, kakakawa, five fingers and griselinia. The stock also love the excess apples, pears, lemons and green veggies.