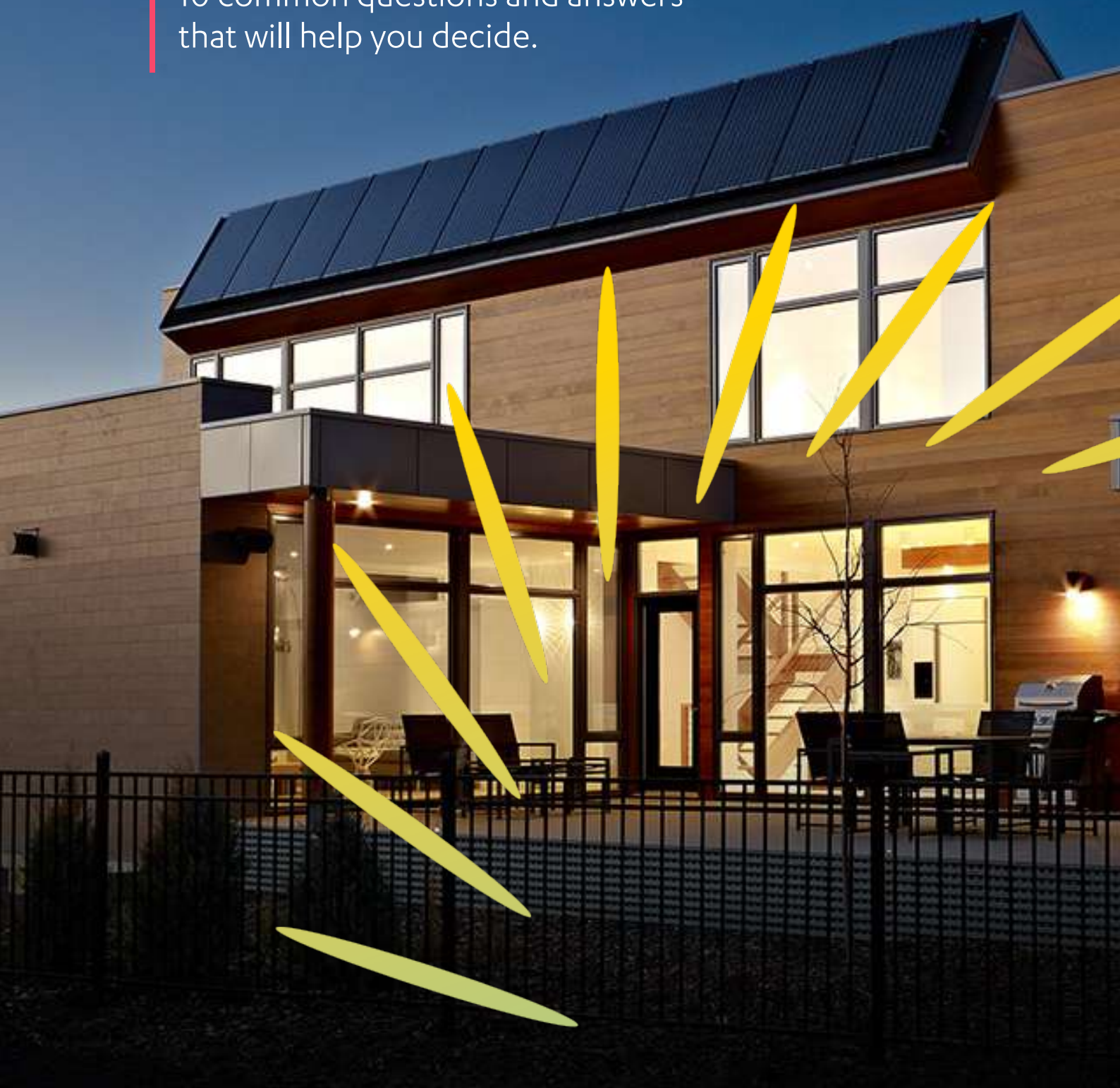


# IS SOLAR THE RIGHT CHOICE FOR YOUR HOME?

10 common questions and answers  
that will help you decide.



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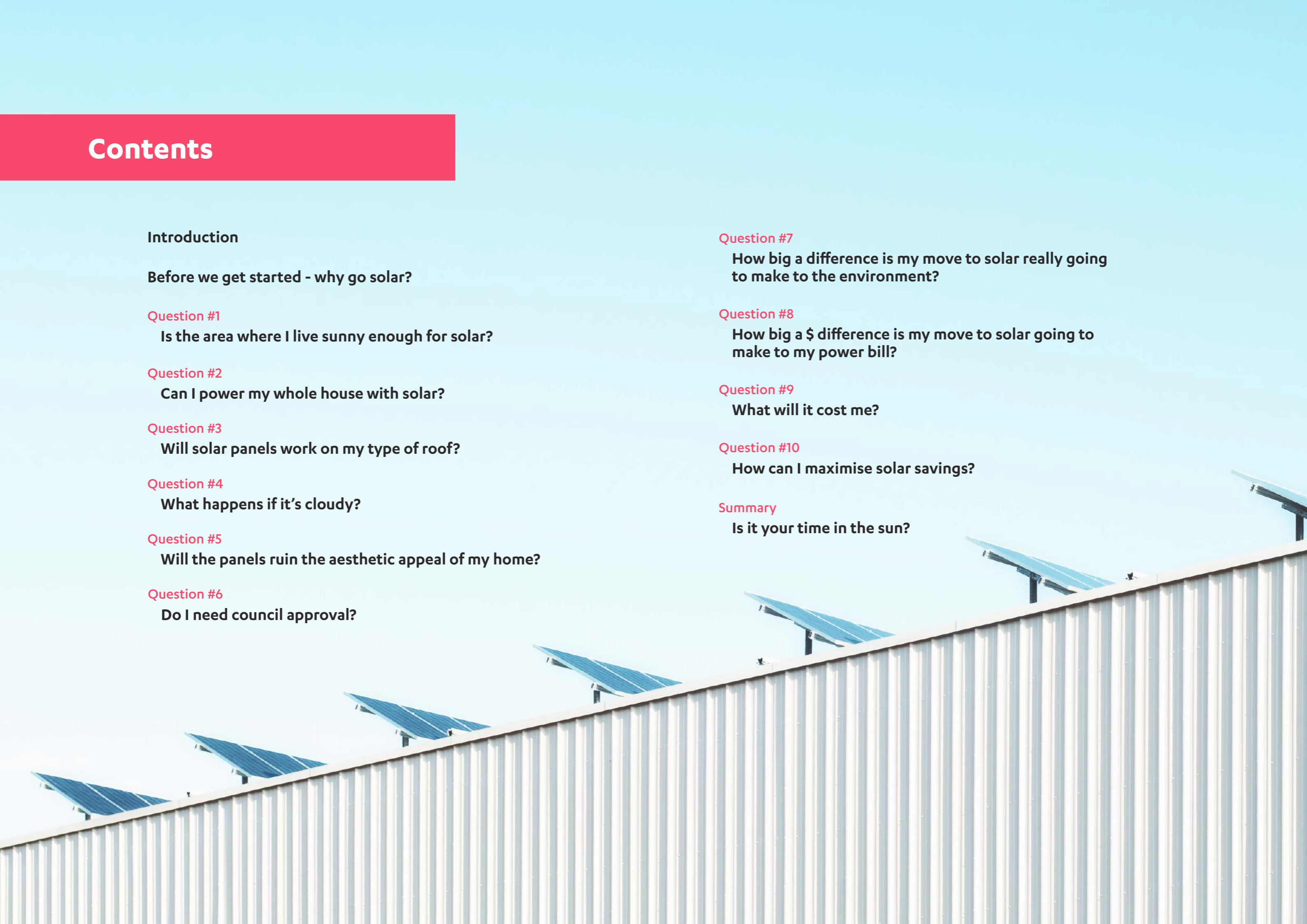
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# Introduction

**The sun produces an astonishing amount of energy. A single hour of it is enough to power the world for a year. In fact, the amount of solar energy striking the Earth at any given moment, is more than 10,000 times the world's total energy use.<sup>1</sup>**

The use of clean, renewable energy is on the rise worldwide, so it's no surprise that solar is an increasingly popular choice when it comes to heating, lighting and powering homes.

In fact, recent reports suggest that based on the current growth, a quarter of energy use and supply globally may come from solar power by 2050.<sup>2</sup>

**And while our use of solar is growing steadily, we are still only using a fraction of the total energy potential from this incredibly powerful source.**

Here in New Zealand, we're seeing a huge shift in the adoption of solar energy.

Improvements in technology, coupled with greater awareness of the savings that can be achieved and environmental benefits, are seeing Kiwi home owners turn to solar to supplement, if not entirely replace their energy needs.

Everyday we're asked a number of questions about the suitability of solar for different New Zealand homes. In this eBook, we endeavour to answer some of the most common questions we get asked, so you too can make an informed decision about your choice of energy supply.

## We'll cover:

- ☀️ The main benefits of solar
- ☀️ How to work out if solar is right for where you live and the style of your home
- ☀️ Practical information about the logistics of installing solar
- ☀️ How much you can potentially save with solar
- ☀️ How to maximise your solar savings

So, if you're thinking about installing solar in your home and want to know if it's a good choice for you and your family, read on.

<sup>1</sup> <https://www.ecowatch.com/sunlight-striking-earths-surface-in-just-one-hour-delivers-enough-ener-1882050482.html>  
<https://energy.gov/articles/top-6-things-you-didnt-know-about-solar-energy>

<sup>2</sup> <https://www.scientificamerican.com/article/solar-power-global-electricity/>

## Before we get started – why go solar?

Solar power today has become a mainstream energy option that is being taken up by New Zealanders in increasing numbers.

But an interesting fact is that most Kiwis switching to solar don't actually want to be completely "off the grid". Instead, they simply want to look after their wallet and the environment by supplementing their existing power supply, with solar.

Not only is solar a great way to reduce your power bill, it also has a number of added advantages, ranging from increasing your property value to reducing your carbon footprint — as solar helps offset any carbon emissions.

Some homeowners believe installing solar energy in their home will be out of their budget. However, it is a very cost-effective energy solution, and has ongoing financial benefits for the savvy user.

Installing solar in your home is a straightforward process, which suits almost all New Zealand homes.

**Convinced? Let's see if solar is right for you...**



## There are many reasons why Kiwis are making the move to solar energy.

Solar power has the ability to improve both your quality of life and that of the human race as a whole. The world is running out of fossil fuels and continuing energy price increases serve as a daily reminder to us all of the increasing shortages of fossil fuel energy supply.

Let's look at the reasons why the majority of people decide to add solar to their houses.



### 1. Significant savings

Installing solar can cut your household energy costs by saving you money on your monthly power bill, all of which adds up to a lifetime of value. Even on cloudy days, your solar panels will continue to convert solar energy into electricity for your home.



### 2. Make money

Besides saving you money each month, solar also gives you the power to make money. If your system generates excess energy from the sun that you're not going to use, you can turn this into profit by selling it back to the grid.



### 3. Control

With solar, you're in charge. Enjoy becoming partially or fully self-sufficient by reducing your reliance on the expensive (and often faulty) electrical grid.



### 4. Added capital value

A solar system can increase the value of your property. A recent study<sup>3</sup> has shown homes with solar are valued and sold at higher prices than other similar homes in the same area.



### 5. Point of difference

Solar has become an increasingly sought-after property feature. When selling a property, it also creates a point of difference that appeals to potential buyers, giving you a competitive edge.



### 6. Afford those home improvements

By combining solar installation with other home improvements such as a new spa or swimming pool, your solar system can be designed to cover the extra energy usage. Plus, all of the money you're saving on power bills can go towards any future improvement costs.



### 7. Looks great

Our solar system panels are beautiful and care is taken during installation to keep the current look and feel of your roof. The result is an attractive addition to your home.



### 8. Peace of mind

Solar energy systems have extensive warranties (for example, at World Solar, ours come with a 25-year performance warranty) so you can rest assured you'll be enjoying the benefits of solar power production for years to come.



### 9. A great choice for businesses

All types of farming, manufacturing, corporate businesses and even schools are making the change to solar power. Power bill savings, environmental and educational benefits make it the obvious choice for innovative business owners.



### 10. Helping the environment

Switching to solar goes a long way in reducing your carbon footprint, through less fossil fuel consumption and lower greenhouse gases. That means a safer, healthier planet for everyone.

<sup>3</sup> [https://www.nytimes.com/2015/02/22/realestate/solar-panels-and-home-values.html?\\_r=0](https://www.nytimes.com/2015/02/22/realestate/solar-panels-and-home-values.html?_r=0)

## Is the area where I live sunny enough for solar?

Most locations around New Zealand are suited to solar power, due to good annual sunshine hours. Some of New Zealand's sunniest regions include: Northland, Auckland, the Bay of Plenty, Nelson and Marlborough.

**But even if you don't live in one of the country's sunniest areas, solar will still work well.**

Panel technology has improved dramatically in the past couple of decades, and is now able to better produce energy on cloudy and semi-cloudy days.

## Can I power my whole house with solar?

For most Kiwi homes, solar can meet the majority of the household power needs, but usually not all of them. This is dependent on your daily consumption needs compared to how much energy your system produces.

If your home is already connected to the electrical grid (which of course most Kiwi homes are), we find the most cost-effective option is using a combination (hybrid) of both energy systems.

With the hybrid model, your solar system will harness and store solar power on a battery (if you go for a system with a battery storage option) ready for use during low-daylight times. Being connected to the electrical grid provides extra back up during peak-use times.

**Find out how much you could save by installing solar in your home**

[Try our solar savings calculator >>](#)



## Common Question #3

# Will solar panels work on my type of roof?

New Zealand homes come in many different shapes and sizes — but there are many options for making solar power work with your home and roof type which means most Kiwis can benefit from solar.

A consultant can assess your home and give you a recommendation based on:

- the condition of the roof
- the angle of the roof
- the orientation of the roof (does it face north, south etc)
- any potential obstacles.

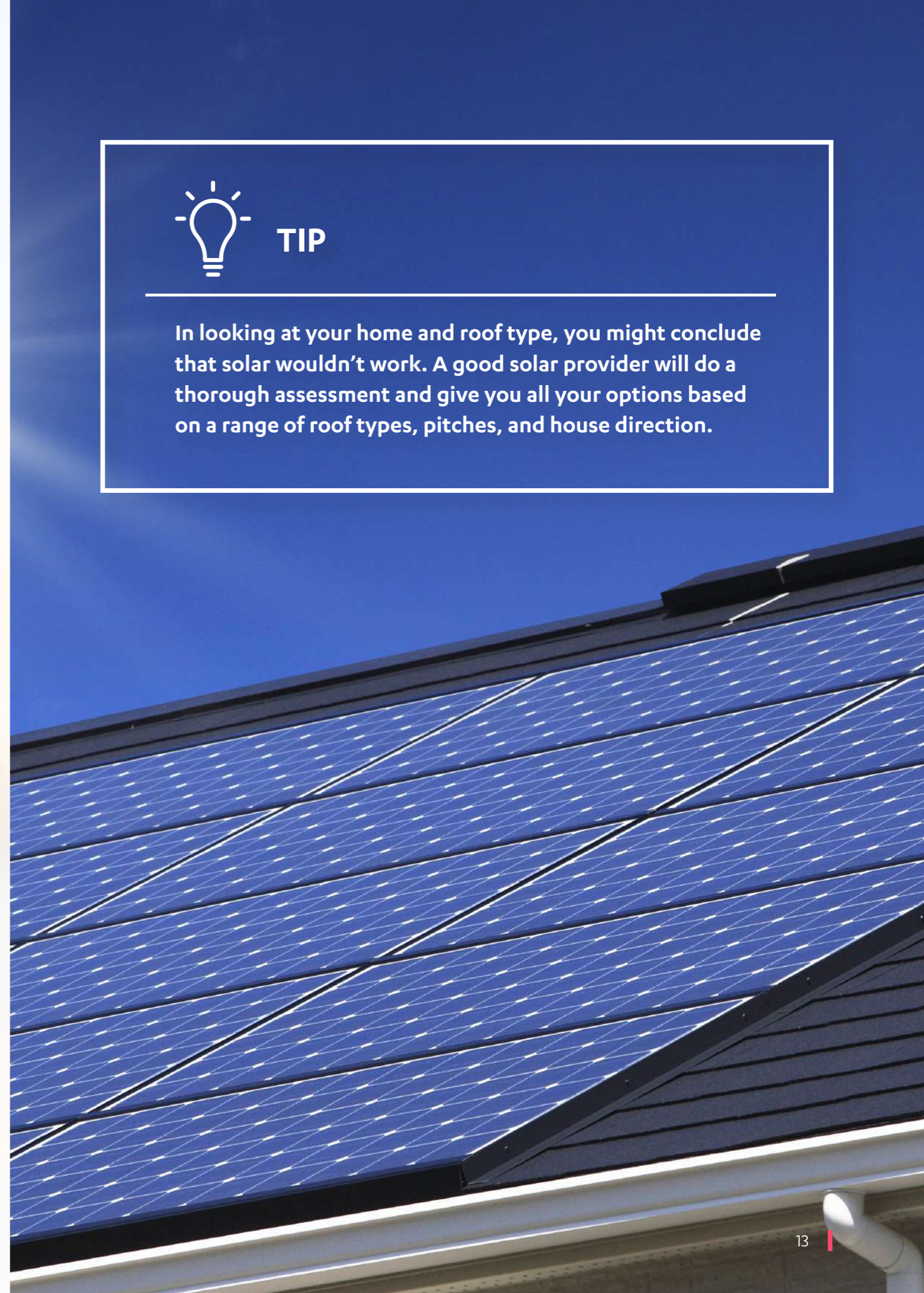
**Solar can work for steep roof pitches or those that are flat as your installer can angle panels appropriately as well as installing your solar panels on the ground if need be!**

The perfect situation is a north-facing roof, but east or west orientations also work and as mentioned above there are a range of flexible options for installing solar.



**TIP**

**In looking at your home and roof type, you might conclude that solar wouldn't work. A good solar provider will do a thorough assessment and give you all your options based on a range of roof types, pitches, and house direction.**



## What happens if it's cloudy?


Solar works by generating electricity from the sun's rays. Optimal conditions are constant, unobstructed sunlight. However, solar panels will still work even when light is partially blocked by clouds.

On cloudy days, your solar energy system will continue to produce clean electricity, just at a lower rate.

In addition, you can store power on a battery. So, on sunny days, your solar panels will generate electricity that will both power your home and charge your battery. This allows you to store electricity for use at night and at times of low production, such as cloudy days.

### To battery, or not to battery, that is the question

Adding a battery to your solar energy system gives you the option of storing excess energy from the sun to use when you need it. Battery prices have decreased significantly in recent years and World Solar source large lithium ion batteries from the world's leading suppliers, to help our customers leverage the benefits of battery power storage for their homes.



A battery system provides you with the ability to store any excess power you create during the day.



## Will the panels ruin the aesthetic appeal of my home?

In recent years, there has been huge advancements in not only the performance of solar technology, but also the aesthetic appeal of solar panels.

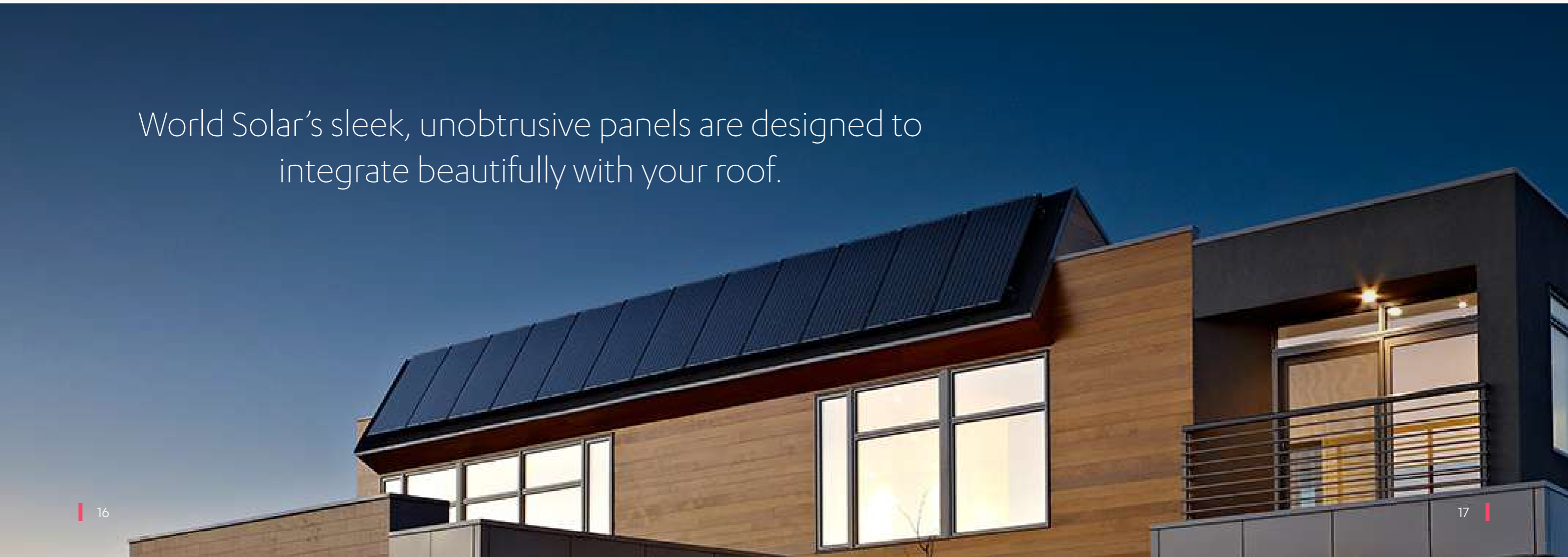
In fact, as well as looking great, solar can increase the value of your property. Studies show homes with solar are valued and sold at higher prices than other similar homes in the same area.

## Do I need council approval?

Generally, installing solar panels does not require building consent, unless the panels form part of the roof cladding or depending on the zoning of your property.

The installation process does involve some paperwork but at World Solar we take care of this for you!

World Solar's sleek, unobtrusive panels are designed to integrate beautifully with your roof.



## How big a difference is my move to solar really going to make to the environment?

Choosing solar energy gives you the added benefit of reducing your family's carbon footprint by doing your bit for the environment.

**By using solar you're making a significant positive impact on the environment since solar power systems produce clean energy from the sun.**

And although New Zealand already derives a significant portion of energy from renewable sources, on a global scale it's a different picture.

Carbon emissions from fossil fuels are a huge problem for our global environment, not to mention driving up power prices due to their finite availability.

So we need to think about our collective effort on a global scale and yes, by choosing solar, you contribute to a significant positive impact on the environment!

## Common Question #8

# How big a \$ difference is my move to solar going to make to my power bill?

If your power bills are costing you hundreds of dollars each month, solar energy could offer huge savings on your power bill straight away.

**Solar is particularly well suited to households that consume a lot of power, as savings will quickly outweigh the investment.**

With the most common hybrid model (having conventional power and solar power) (see Common Question #2), energy generated from solar panels is used first so you only draw electricity from the grid when you need it, resulting in a smaller power bill.

Individual savings will vary (see Common Question #8), but many customers we work with save up to 50% off their power bill, and we've even seen some savvy users saving up to 90% in the summer months when they apply all our tips and tricks for an energy-efficient home.

There are several factors that impact how much you save.

These include:

- The size of your system (includes both physical size, and voltage size).
- How much power you use.
- How much you pay for the installation.
- What kind of battery storage you opt for (if any).



## What will it cost me?

During the last decade, installing solar panels has become an increasingly affordable option for New Zealand home owners.

A solar system for a residential home will generally range from between \$6000 for a 1.7KW system and \$10,000 and over for a 5KW range system.

The system that you choose will depend on a range of factors, including how much power you're currently using, whether you want a system you can add more solar panels to in the future, or a system with a battery option installed to enable you to store any excess power for future use.

Generally, for home owners the payback period on your solar investment is around 4 - 7 years.

### Save without spending...

We find many customers, even if they do have the available cash to spend, will opt for a finance-based option when installing solar. Given that finance options leverage zero-dollar down, plus no interest for 21 months, in effect you can save money on your power bill from the time you install your solar system without having to pay a cent up front!

## How can I maximise solar savings?

As a solar customer, you'll want to maximise your potential savings as much as possible.

One way to do this is to use timers on appliances so they are set to run when solar power is being generated.

You can also consider energy management systems, ranging from a basic option through to one that turns all of your appliances and machines on and off.

These systems refine power usage, enabling you to get the most out of the solar energy you produce.

**If you spend a lot of the day at home, solar energy will benefit you as you'll be using it at the same time it's generated rather than using power from the grid.**

Similarly, if you run a home-based business that consumes most of its electricity during the day, switching to a solar energy system means you could start saving as soon as the panels are installed.

Quality solar providers will go the extra mile for you when installing solar. Make sure to ask the company you choose if they'll provide a 'holistic' power assessment of your home – giving you tips and tricks to optimise your savings across your household.

## How much could you save with solar?

**Solar energy provides savings where you need it most - in your monthly power bill.**

**To find out how much you could save by switching to solar, try our personalised World Solar Savings Calculator.**

**Find out how much you could save by installing solar in your home**

**Try our solar savings calculator >>**



## Is it your time in the sun?

The sun will keep shining and supplying free solar energy for another 4 billion years. Are you ready to tap into this incredible energy source? <sup>4</sup>

We hope this eBook has helped answer some of the questions you may have about the practicalities of installing solar at your place.

Combining the best of both worlds, solar energy gives most New Zealand households the potential to harness the pure, free power of the sun while keeping their connection to the grid for back-up.

By switching to solar, you too can help our environment by dramatically reducing New Zealand's carbon footprint — at the same time looking after your wallet, with reduced power bills each month.

**If you're ready to learn more, we'd love to hear from you!**

<sup>4</sup> <https://www.vector.co.nz/articles/10-things-you-might-not-know-about-solar>

**Disclaimer:** Please note that the information provided in this eBook is of a general nature and should not be construed, or relied on as suitable for your specific situation.

For a free solar consultation to find out how much you could potentially save by switching to a solar energy system, why not ask one of our solar consultants to come out to your place for a no obligation assessment?

**Interested in a free solar consultation for your home?**



**Book a time with one of our consultants**

