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# Residential Case Study



## Client

The Ryan Family  
Energy Efficient Homes Ltd.

## Location

Porirua, New Zealand

## Installation Info

Residential Grid Connect  
Metal Roof, Flush Mounting

## System

Evergreen Solar 1.26 kW

## System Performance

1,772 kWh per annum

*"The system will continuously work for my family's financial and environmental future. Everyone building a new home should consider the installation of a solar power system."*  
Barry Ryan, Owner.

The Ryan family have just moved into one of NZ's most comfortable and energy efficient homes. The home, designed by Energy Efficient Homes Ltd., will require 75% less electricity than the average NZ home through the use of energy efficient design and a Powersmart Grid Connected Solar Power System.

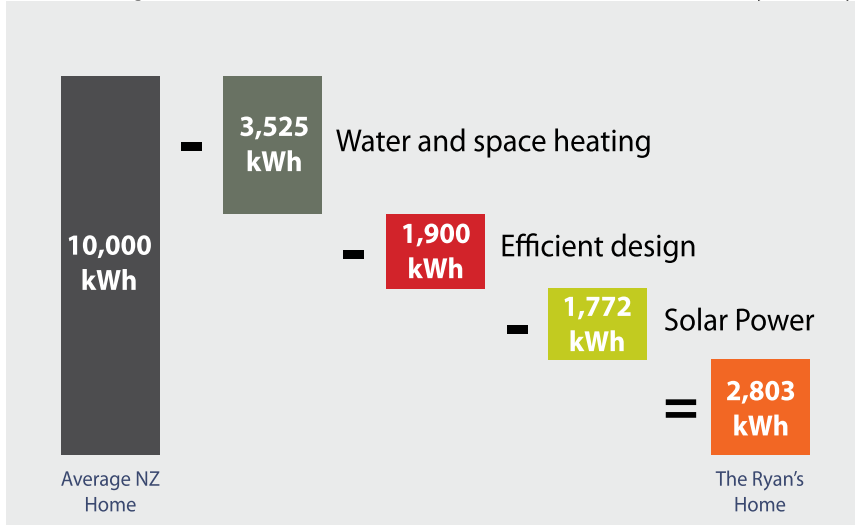
The system was installed by Powersmart in March 2008 and generated 150 kWh of electricity in one month. Annually, the system is expected to generate 1,772 kWh of electricity, providing the home with approximately 40% of its total energy needs.

Homeowner, Barry Ryan, will immediately save a significant amount of money on utility bills and continue to save long into the future. He says, "The system will continuously work for my family's financial and environmental future. Everyone building a new home should consider the installation of a solar power system."

The Ryan's decision to build with Energy Efficient Homes and add a Powersmart solar system is a wise financial and environmental choice.

## Energy Efficiency

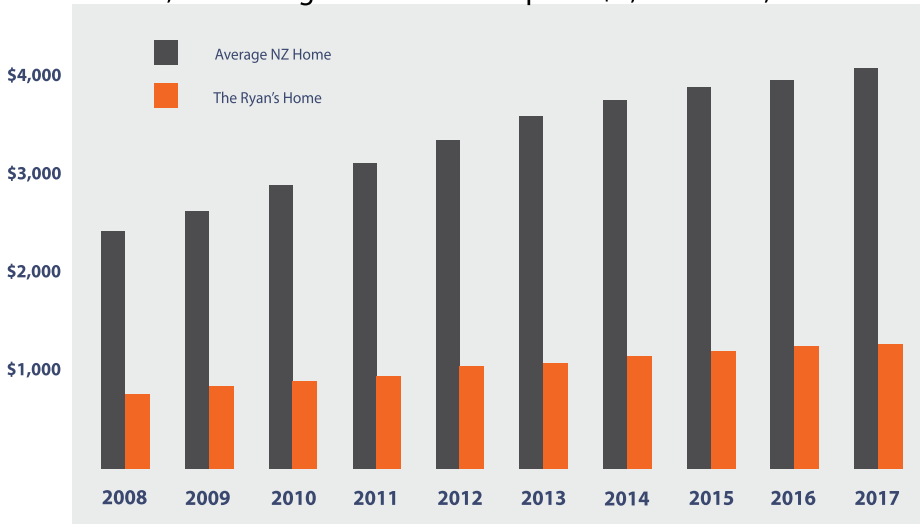
The average NZ home uses around 10,000 kWh of electricity each year. The Ryan's home utilises



solar water and space heating, energy efficient design, and a Powersmart solar power system to reduce the home's electricity needs by approximately 75%. The solar power system can be scaled up to supply more electricity at any time. As a result, the Ryan's home will be comfortable year round and have significantly lower utility costs than the average NZ home.

## Savings

In 2008, the average NZ home will spend \$2,420 for 10,000 kWh of electricity. The Ryan's cost will be



\$780 for 2,800 kWh. As electricity prices inevitably rise, the Ryans will enjoy greater savings each year, and much smaller utility bills than the average home. For example, in 2012 the average NZ home will pay over \$3,300 for electricity. The Ryans will pay only \$1,000. By 2017 the savings are even greater. The average NZ home will pay over \$4,000. The Ryans will pay just over \$1,200.



Powersmart is proud to work with Energy Efficient Homes to provide NZ affordable and comfortable homes with little or no utility costs.



For more information please see us online at :

[www.powersmart.co.nz](http://www.powersmart.co.nz)

[www.eehnz.co.nz](http://www.eehnz.co.nz)