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National News

The McHale's Altona North family home is the very model of sustainability and innovation

- **by: Fiona O'Doherty**
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Leeanne (pictured) and Jason McHale's home now produces more electricity than they can use after two years, using solar power. They also ensured their home includes other measures to prevent heat loss, keep it cool and save energy.
Source: News Limited

Pictured with solar panels, Leeanne and Jason McHale's Altona North home now producse more electricity than they can use after two years, using solar power.
Source: News Limited

The environment control panel in the Altona North home of Leaanne and Jason McHale.
Source: News Limited

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THREE years ago, Leeanne McHale and her husband, Jason, bulldozed the Altona North house that they had lived in for 20 years.

Then they built a new home on the same block that is so energy efficient they don't pay any energy bills, rarely use a heater or airconditioner and actually receive money for the surplus electricity they generate.

The McHales, including two children, are part of a growing trend in Australian households, which has resulted in the reversal of the previous growth in electricity use.

A report by a joint Monash University and Myer Foundation research institute Climateworks Australia predicts electricity use per household will fall 14 per cent by 2020.

And it's all down to the sun, but not just solar panels, although ClimateWorks reports a fivefold increase in the installation of solar panels since 2009.

The McHale's three-bedroom home was built facing north to make the most of winter sun and to lessen the sun's harsh impact in summer.

There are polished concrete floors throughout, which act as a thermal mass, retaining heat during the day and releasing it in the evenings.

"The kids never wear slippers or socks because it is so warm and in summer, you come in from the boiling heat, take your shoes off and the floor is cool - it's nice and refreshing," Mrs McHale said.

Almost all the windows are double glazed with timber frames. The house has high ceilings and large eaves help shade the house.

There are airlocks, or antechambers, at the house entrances so the internal temperature of the house is not affected when people come and go.

Bi-fold doors at the rear of the house allow cool southern breezes to flow throughout summer.

Solar panels on the roof generate electricity and no one flicks a light switch during the day as light is largely provided by high windows.

Two 30,000L water tanks provide water for the laundry and garden, including vegetable boxes and fruit trees in the front of the house.

"The garden has a community feel because we are always out there and although we have lived here 20 years, all of a sudden we are meeting neighbours we haven't met before," Mrs McHale said.

Mr McHale, an electronics engineer, devised an automated system that reads the interior air temperature and turns on ceiling fans and opens the high windows when it gets too hot.

The house was designed by Altona sustainable design and construction business Positive Footprints and cost $300,000.

It won the national BPN Sustainable New Home of the Year last year.

"The design is just amazing," Mrs McHale said.

"It fits in with our lifestyle having kids and entertaining."

Sustainable House Day is this Sunday, September 8.

Houses will be open in Seaholme and Hoppers Crossing.

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