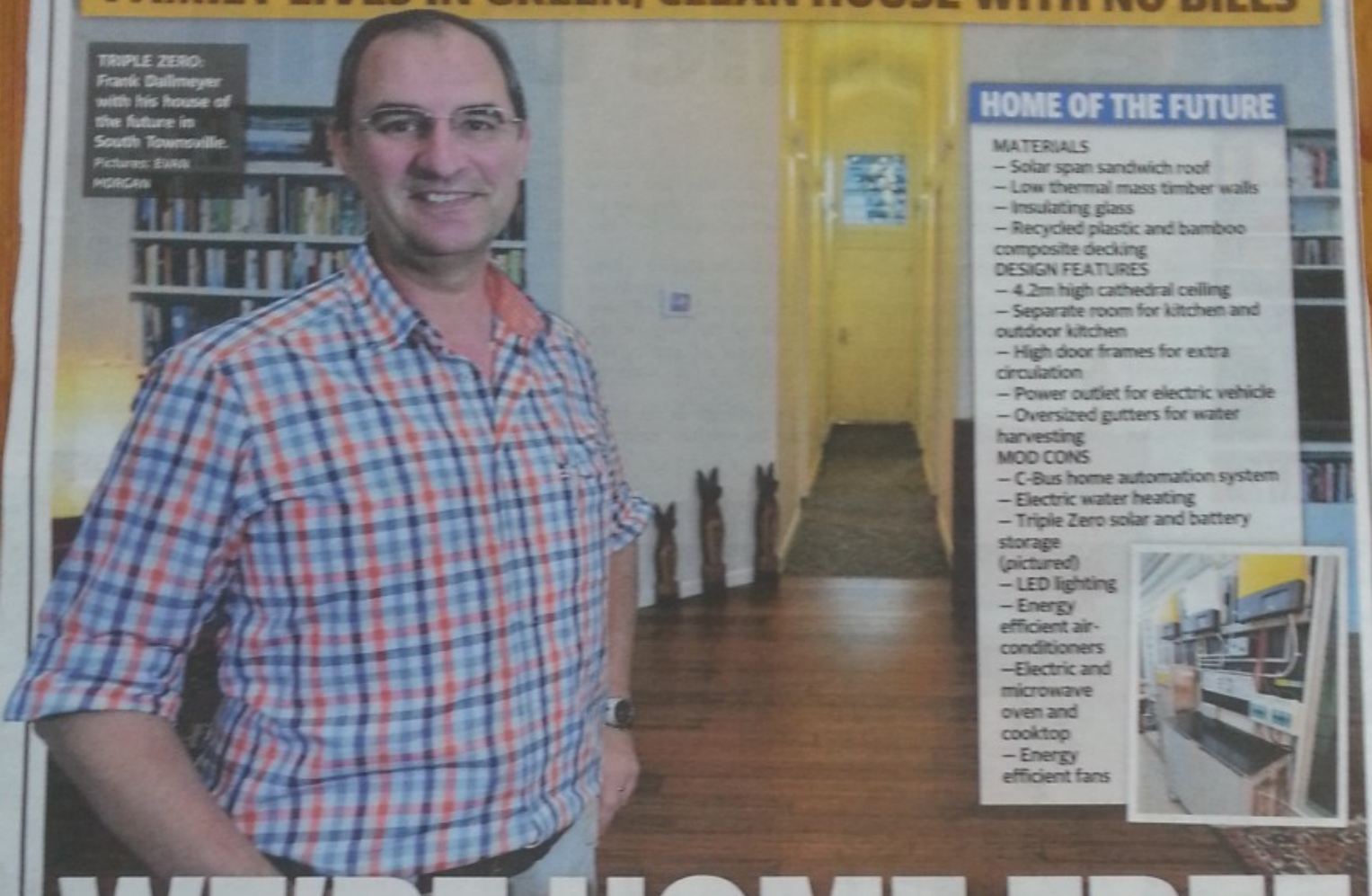
FAMILY LIVES IN GREEN, CLEAN HOUSE WITH NO BILLS



TRIPLE ZERO: Frank Dallmeyer with his house of the future in South Townsville. Pictures: EVAN MORGAN

HOME OF THE FUTURE

MATERIALS
– Solar span sandwich roof
– Low thermal mass timber walls
– Insulating glass
– Recycled plastic and bamboo composite decking

DESIGN FEATURES
– 4.2m high cathedral ceiling
– Separate room for kitchen and outdoor kitchen
– High door frames for extra circulation
– Power outlet for electric vehicle
– Oversized gutters for water harvesting

MOD CONS
– C-Bus home automation system
– Electric water heating
– Triple Zero solar and battery storage (pictured)
– LED lighting
– Energy efficient air-conditioners
–Electric and microwave oven and cooktop
– Energy efficient fans

WE'RE HOME FREE

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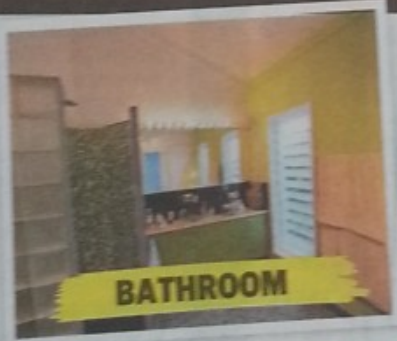
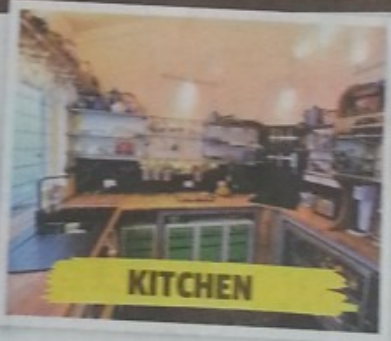


BATHROOM



KITCHEN

LIVING AREA

WELCOME to the house of the future, a new $400,000 cottage in South Townsville that its house-proud owner Frank Dallmeyer hopes will be a model for living in the tropics.

The home at Perkins Street has just been completed by builder Finlay Homes and the Dallmeyers are revelling in all its mod cons, knowing they have no electricity bills.

That is because it is one of only a few dwellings which relies totally on rooftop solar and battery storage for energy without the back-up of fuel generators or connection to the conventional grid.

It is also a house built on the principles of sustainability with the use of energy efficient materials and appliances and with the plumbing and wiring for features including water harvesting and the charging of electric vehicles.

Mr Dallmeyer, an engineer who operates Tropical Energy Solutions, a consultancy firm providing clean energy systems, has channelled all his expertise and knowledge into the new family home.

"We wanted to show that you can live comfortably and affordably in a tough tropical environment," Mr Dallmeyer said.

"We won't necessarily save the world.

"But we can show you that things can be done in a way where you don't have to sacrifice your comfort and you don't have to be a millionaire to afford these things."

The Dallmeyers have designed a small 140sqm home on a 300sqm block.

The steel and timber framed house has a specially designed "sandwich roof" – a polystyrene core cladded with metal – to maximise insulation.

Its low thermal mass timber walls and insulating glass reduce heat transfer.

The 4.2m high cathedral ceiling, louvres set high in the walls and higher than normal door frames increase air flow internally, while the latest air-conditioning system provides temperature, humidity and air quality control.

The home's key features, however, are its solar panels and battery storage combined with a C-Bus home automation control system.

Basically, the solar panels and battery storage of up to 12.5 kilowatt hours of capacity provide the grunt and the control system ensures the batteries are not drained.

A second inverter has been installed as a back-up in case the inverter fails.

Mr Dallmeyer calls it his "triple zero" system – "zero electricity bills, zero gas or fuel bills and zero emissions".

He said they managed to have all the modern conveniences without the hassle of the electricity costs.

"You name a kitchen appliance and we have it," he said.

Asked what he would call the home, Mr Dallmeyer was undecided.

It was a toss up between the "Triple Zero Home" and "the 21 Century City Cottage".