

TRAINING OFF THE PAGE - JON PALFREY

TAKING TRAINING OFF THE PAGE AND ON THE ROAD

A long-held frustration is the geographical challenges of the vast areas of our country and regions, particularly as innovation and new technology can exceed hands-on training opportunities. **Jon Palfrey** reports.

Keeping up to date with recent technologies that allow for water heating to be achieved via solar PV is now available in the form of a training trailer. This trailer has the ability to provide a learner with a hands-on functional experience with working water-heating systems.

The recent design and build of the Energy Smart Water training trailer enables training to be taken 'off the page' and delivered to any location where the industry requires demonstration and exposure to new and innovative technologies in solar water heating methods.

With the introduction of solar PV and water heating, there is a need for the plumbing industry to embrace and understand the operation and installation requirements of systems that produce heated water via PV panels with associated storage tanks and control devices.

The consumer is now more than ever interested and committed to either self-sufficiency or a reduction of energy consumption/costs for their services needs, from residential dwellings up to the largest commercial project applications.

The plumbing industry needs to be aware and familiar with this significant change in consumer expectations and system function.

The PV panels located on the trailer roof supply 1.4KW of DC power into an Enermax tank, providing the water heating requirement on the Energy Smart Water training trailer.

Connected to the 300L Enermax tank,



The Energy Smart Water training trailer is fully equipped with working systems.

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the system functions and demonstrates the ROSC20 system operating as an off-grid water heating system.

Interactive training can be so advantageous, with the learner having the ability to touch and feel a device or component and to establish a trust or awareness to take into their work and business practices.

HARNESSING EXCESS PV

The AC.THOR solar PV control unit provides the opportunity for excess PV to not be lost back to the grid, but

to be utilised in heating principals in the thermal storage battery, being the Enermax tank.

Being able to physically identify this is key to understanding this new innovation and technology, which consumers expect the plumber to be conversant with.

More and more, the need to illustrate and demonstrate innovation has seen the development of this form of a portable and user-friendly training device that can be taken on the road, particularly in regional areas where the community has an expectation for off-grid energy production to be utilised for water heating needs and purposes.

The plumbing industry needs to understand and recognise this technology for when a customer

BEST IN SHOW



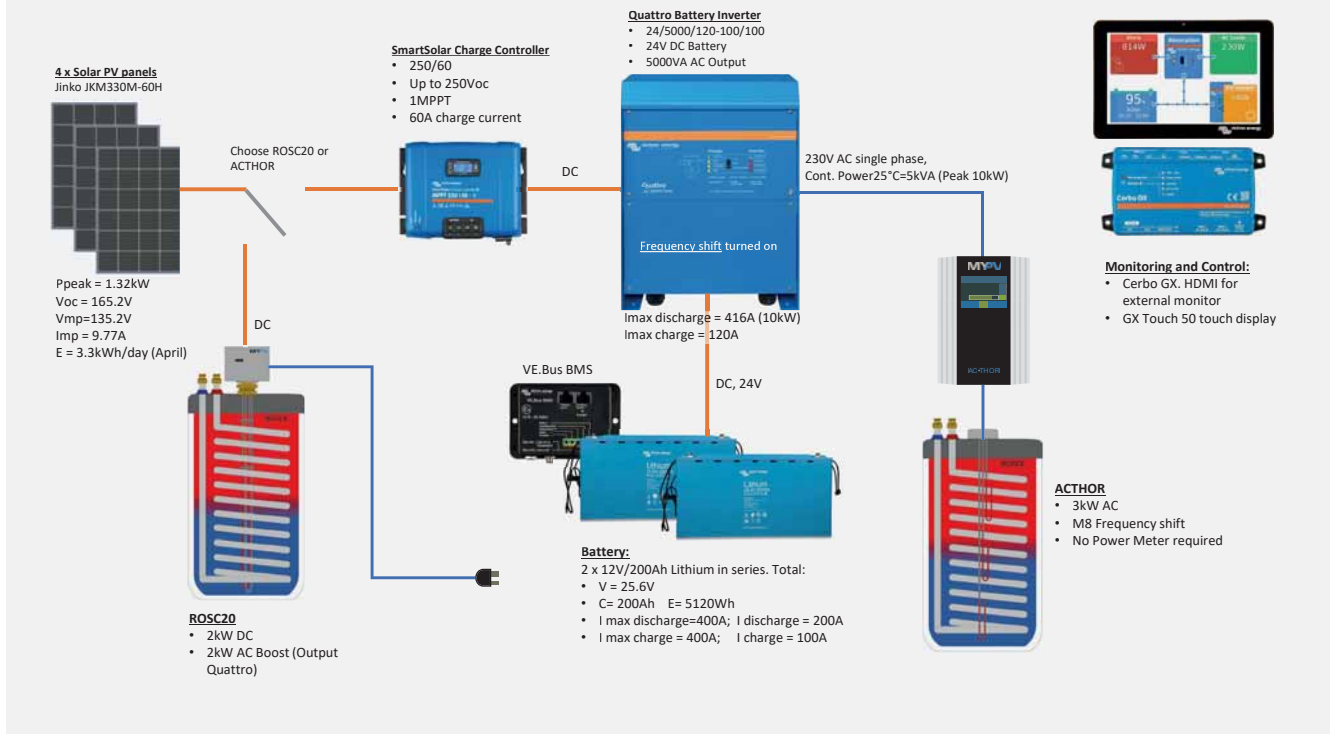
For over thirty years Toyota Huski skid steer loaders have built a reputation on outstanding performance, driver comfort and legendary reliability. Continuing this pedigree, Toyota Material Handling has extended the Huski range to also include scissor lift and mini-excavator models.

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THIS SCHEMATIC SHOWCASES THE PHYSICAL SYSTEMS ON DISPLAY IN THE TRAILER



requests a quote or information relating to this new technology, and to maintain control of installation of water heating systems.

As the Energy Smart Water training trailer visits regions, it will also be available to see and experience at various locations, including local TAFE facilities and community centers.



The trailer’s functional displays are all part of a ‘hands-on’ approach to learning.

The training trailer has the following items for demonstration purposes:

- Solar PV collectors providing heated water into an operational DHW tank system. Live operating system showing solar gain/yield in real time including temperature and KW gains via screen.
- Hands-on working displays showing solar PV connection.
- Schematic diagram showing both system options, including ROOSC20 plant using dedicated 2KW of solar PV contribution, and the second option via the ability for the detection of excess solar gain (via the AC.THOR power manager) to be used as thermal storage instead of grid loss. Solar PV power being managed via a device that interprets energy gain and where it can be used.

Sometimes, seeing and experiencing a system operating in a non-threatening environment – where basic questions can be asked and qualified answers discussed – is the best way to meet the needs of the industry and the requirements for further hands-on training.

So, if it is just domestic water heating or a combination of hydronic and DHW needs, the plumber can now visit a location where the trailer will be located to gain an understanding of the function and installation requirements for this ever-growing energy solution.

Upcoming training locations include:

- Albury
- Adelaide
- South Coast NSW
- East Coast Victoria
- La Trobe Valley
- Warrnambool
- Ballarat.

Yours in hot water and training, Jon Palfrey. ■



Jon Palfrey is the Thermal Energy Solutions/Rotex Commercial Manager. He conducts training to industry groups relating to all things water heating.