

Case Study

Fischer Panda UK contributes to the reduction of CO2 for Sky News

By designing and installing hybrid mobile power systems onboard Sky's Rapid News Gatherer vehicles, Fischer Panda UK assisted the news broadcaster in the reduction of carbon emissions and supported the organisation in winning an industry innovation award.



Background

Winning The Sustainability Project of the Year at the Broadcast Tech Innovation Awards, Sky News was awarded for their Sustainable Ranger Project, featuring eight Rangers, otherwise known as 'Rapid News Gathering' vehicles, run throughout the UK and used for live broadcasting and editing purposes on location.

Celebrating the exceptional teams behind the most outstanding broadcast productions, The Broadcast Tech Innovation Awards highlight the outstanding creative and technical aspects of the projects and recognise the hard work behind the scenes of content production.

To fulfil the requirements successfully, each of the vehicles needed to be equipped with suitable hybrid power systems, allowing for effective, large power-draw and this is where Fischer Panda's supply, service and expertise came in.

Working with Fischer Panda UK contributed to Sky News winning The Broadcast Tech Innovation Award for its sustainable vehicle project in 2021. The aim of the project was to get the vehicles on the road to green transition and to reduce CO2 output when in operational service.



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Before the implementation of the project, a Ranger vehicles engine would be left running for many hours of the day whilst broadcasting or editing which resulted in a single vehicle producing its own weight in carbon in just 2 months. To address this, Sky launched the Sustainable Truck Project with the aim of replacing the Rangers with alternative vehicles that were effectively more sustainable by design. Even with the rapid recent development in EV zero emission vehicles, SKY found there was still no current vehicle fit for purpose for their particular role. So, until suitable developments in EV battery and hydrogen technology came to market SKY made the decision not to wait, but to get on the road to transition their current and new fleet of Rangers with Hybrid payload power systems.

A beneficial hybrid mobile power system

Fischer Panda UK worked with Sky's Vehicle Technology department to create a system for the vehicles, so they could be used daily for core functions such as news reporting with the engine turned off.

- To enable this, Mastervolt Lithium-Ion batteries were selected for their quick charging performance 'lightweight' and for enabling the Rangers to easily deploy to any location at any given time.
- A mains power hook-up is a key feature, which enables each vehicle to run equipment and to charge batteries whenever mains power is available, either on location or back-at-base to ensure on board Payload power system is always deployed 100% fully charged, to ensure the maximum of Zero emission broadcast and editing time on site.
- Solar panels are installed onto the roof of each vehicle, to address standby power losses and/or when the vehicles are parked up outside when not in use, plus provide some small additional charge to further extend zero emission times and keep the batteries topped-up.
- The Payload power system onboard the Rangers is also recharged while driving, to both top up the Lithium battery and provide further zero emission run time at vehicles next deployment stop. This is done by a fully programable Mastervolt Mac Plus DC Charger that enables maximum charge current from the vehicles existing euro 6 alternator further improving reliability and reducing vehicles main engine emissions.
- The Mastervolt on board monitoring provides the vehicle operator a clear overview of zero emission power available in real time, to enable informed decision making & how long critical broadcast and editing equipment can continue to be run before recharging needed by either mains hook up, or simply running the engine for short time to extend transmission time.

The new system has helped bring down Sky's vehicle emissions by an estimated 105 tonnes of carbon over the fleet of 8 vehicles and in practice are generally now operating with zero emissions when on site stationary powering broadcast kit on location.

System components

- Mastervolt 5.5kwh Lithium-Ion battery (S)
- Mastervolt DC-DC MAC Plus charger (s)
- Mains hook-up
- Mastervolt MASS Combi
- Masterview easy touch screen
- Solar Panel & smart controller



A video on the Ranger vehicles can be viewed [here](#).



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