



Introduction to TCP

Short film...

[\(112\) We Are TCP - YouTube](#)



Hydrogen Solutions

Delivering Sustainable Solutions
for a
Cleaner Environment



Background and Development

UK Product Design & Manufacturer
Established 1989

- TCP is a well recognised supplier to the construction, rail and civil engineering sector, for both Compaction and Lighting products.
- TCP has specialised in the field of mobile - task and safety lighting for over 20 years.
- TCP is focused on continual evolution to provide “best in class” product solutions for our customers.
- Invest in clean-sustainable technology.
- Divest from Fossil Fuels.

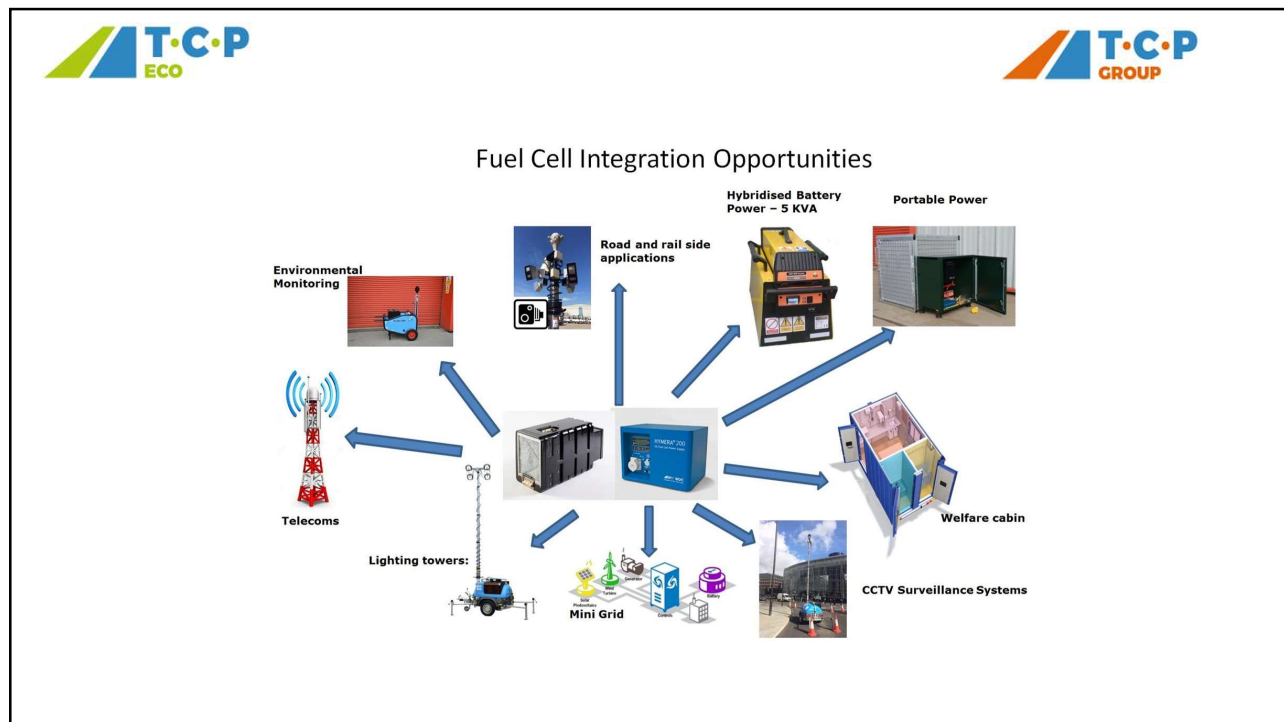


Our Core Focus

- Sustainable Products –

Fuel Cell – Battery - Solar

- Mobile Safety & Task Lighting
- Low Power off-grid Power Solutions
- Turnkey Management Service – H2 Gas
- Remote Monitoring – Fleet Management
- Alternative Power Options for Welfare Cabins



The slide features the T.C.P. ECO logo on the top left and the T.C.P. GROUP logo on the top right. The main text is centered and reads:

Clean, Green Power that doesn't cost the earth ...

...HYDROGEN

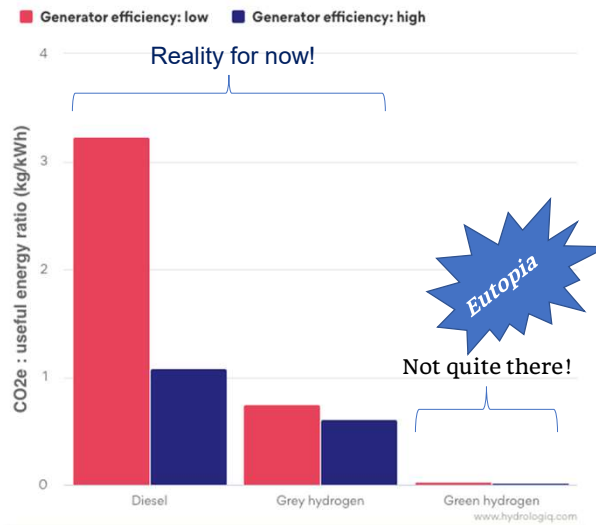
- Uninterrupted operation at all times
- No CO₂ emissions
- No NOx emissions
- No particulate pollution
- No noise
- No liquid fuel – zero spill risk
- Clean, sustainable fuel
- Makes Section 61 compliance easy



How Green is Hydrogen?

- Majority of World H2 Production – Grey
- Production of Green – Increasing
- Green – Costs still high
- Grey – Lower CO2 footprint than Diesel
- Grey – Cost efficient [low-medium power]
- All H2 Zero CO2, NOx at point of use

Generator CO2 emissions between different fuel types



Mobile Cylinder Distribution.....

'A Practical Solution for today'





Mobile Cylinder Distribution.....

'A Practical Solution for today'

- Volume & Size options available
- Flexible & Fast Logistics
- Clean fuel for an array of different site applications
- Cost Effective
- Remote fuel monitoring



Genie 660mm x 320mm [23kg]



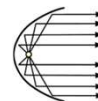
MCP 1290mm x 1810mm x 840mm [1500kg]



Ecolite TH200



- TCP and BOC – Joint Collaboration
- Ground Breaking Technology
- Worlds First Low Energy LED using Fuel Cells
- No internal combustion engine or harmful emissions
- Ideal for environmentally sensitive areas
- Eliminate Noise Complaints (Section 61 compliant)
- Demonstrate Concern to Local Stakeholders
- Original TCP AMOSS
- Patented lens technology – reduced glare, reduced harsh shadows





CH2 Clean Power Generator - Scalable



Multiple off-grid applications

Environmental Monitoring– HS2



Position Anywhere



Telecoms - Kinross





Security Sentry Box Powered by Hydrogen & Solar

Modular & Versatile



Off-Grid Power for Higher Demands

Advanced Battery Technology

1kW Fuel Cell

5kW Peak Loads

- Heavy Breaking / Sawing 1hr 40 mins
- Medium Grinding / Cutting 4 hours
- Small Power tools 16 hours
- LED Lighting 50 Hours

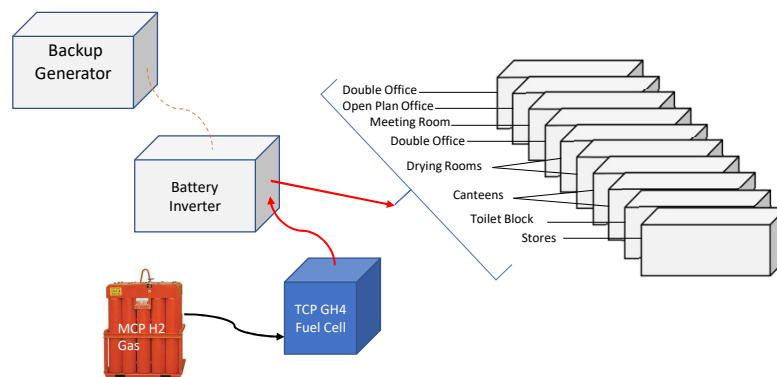




Battery / Fuel Cell – Clean Power for Site Accommodation



Clean Hybridised Technology to reduce Diesel Use





Environment Agency - Godmanchester

4 kW Hydrogen Fuel Cell & 45 kVA / 60 kWh battery - Providing alternative solution to power 3 x Welfare Cabins For Environment Agency - Godmanchester

Load efficiencies improved by replacing existing convector heaters with Air Source Heat Pumps

- Convector Heaters load @ 8 kW removed
- Replaced by 2 x ASHP @ 1.4 kW
- Power reduction of 6.6 kW



- 4kW Fuel Cell
- 90/45 Battery Inverter
- PV Controller
- 2 x MCP Hydrogen Cylinders [>260 kWh stored energy]
- 30kVA back-up diesel generator
- Fuel Bowser

- 100 x Solar Panels





End to End Service

