LEADING SAFETY PRACTICE 0081/30062023

USE OF A SOLAR HYBRID GENERATOR TO POWER COMPOUND

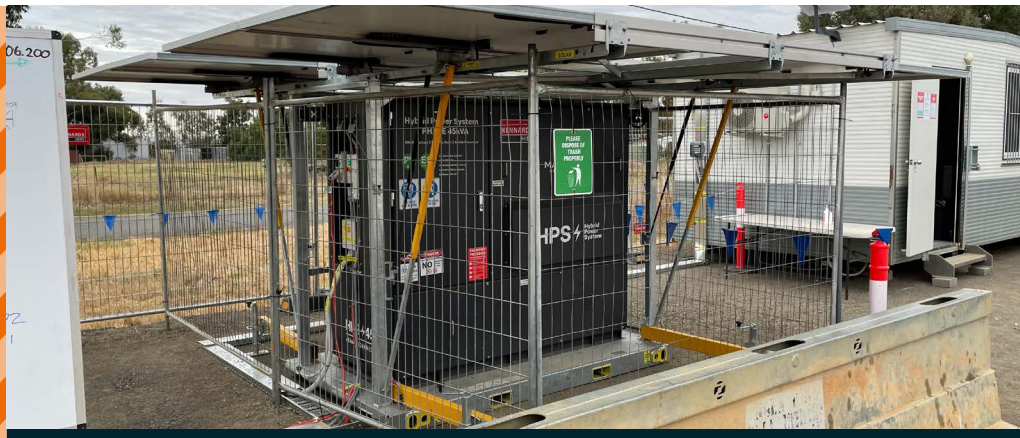
MAJOR TRANSPORT INFRASTRUCTURE AUTHORITY

During an occupation on Shepparton Corridor Upgrade – Package 2 (SCU 2) a solar hybrid generator was used instead of the normal diesel generator to reduce emissions, fuel, noise and for rapid deployment.

During an occupation on SCU2 a solar hybrid generator was used instead of the normal diesel generator.

The benefits of this included:

- Reduced emissions
- Reduced use of fuel
- Significant reduction of noise
- Rapid deployment.



Solar hybrid generator located in the site compound.

The Situation

During occupations and mobile work, a site compound is normally created to provide a place to work, amenities, storage and act as a focal point.

Traditional power sources use a diesel generator which produces emissions, is loud, heavy, complex to set up/locate and require more space to use.

Other risks associated with operation of a shed include:

- Vehicle movement through refuelling
- Reduced chemical spills
- Refuelling generators; and
- Unauthorised tampering of generators.

The Solution

A solar hybrid generator is a greener choice where the sun can be used to charge the battery pack for silent and reduced emission power on work sites. A diesel generator will run if the batteries need charge or when the solar input is not adequate. This reduces emissions, fuel use and a significant reduction of noise. The generator can be rapidly deployed resulting in saved time. The generator powers 4 buildings, the compound lighting, and security.

Benefits and learnings

Health and Safety

- Significant reduction of noise.
- Reduced exposure to pollution.

Environmental

- Reduced emissions.
- Reduced use of fuel.
- Rapid deployment.

Cost Benefit

- $10,000 per year savings on diesel.
- $5,000 per year cheaper than a traditional generator.
- $5,000 savings from reduced maintenance and installation works.

MTIA9688

Program Office: Rail Projects Victoria
Work Package: Shepparton Corridor Upgrade - Package 2
Principal Contractor: Acciona Rail
Solution Vendor: Kennards Hire

Contact: Dugald Cunningham
dugald.cunningham@acciona.com
or
Ravi Pillai
Ravi.pillai@railprojects.vic.gov.au

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