

**COMMUNITY BATTERY DESIGN BRIEF
HARRIETVILLE HALL**

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1. Site Overview

1.1. Solar PV capacity max

The site already has 10kW of solar PV installed, 16kWh battery and a generator. The 10kW of solar PV panels take up all the sites north facing roof space. Therefore, we believe there is no space for additional panels. The current solar system and battery storage should be able to cover the sites usage. We believe there is no need to add additional battery storage to this system at this stage due to the lack of a return on investment.

1.2. Electrical infrastructure and limitations

The Hall connects to a 200kVa transformer. The switchboard is presently capable of 63 amps Three phase.

2. EV Charging Addition

The Alpine Shire Council has requested information to support the possible installation of an EV charging facility at the site.

2.1. Technical Considerations

This site would be suited to a 25kW EV charger behind the meter utilising some of the excess solar energy and battery storage produced from the site to charge EV's. To do this a sub meter would need to be installed after the primary site meter and before the EV charger so we could see how much energy the EV charger is using. The other option would be to apply for a new connection point at the site and install a 50kW charger. This however would not be economical due to the distribution substation load profile appearing to be overloading at times. Therefore, SP Ausnet would need to install a new distribution substation transformer. We estimate these costs to add an additional \$90,000 to \$140,000 to the installation.

2.2. Fee Estimate

Our fee estimates for the delivery of a 25 kW charger is \$55,000 ex GST. This cost includes:

1. Design and electrical engineering
2. Project management of installation
3. Procurement of charger
4. Installation and commissioning
5. Supply and install metering
6. Civil and site works including traffic bollards, concrete foundations for the charger, line marking.
7. Travel

2.3. Site Layout



3. Appendix

3.1. Site electrical infrastructure

Detailed photos of site electrical infrastructure can be found at the below link.

https://drive.google.com/drive/folders/18FpHAUX5qZvPOWMX7wcezlO5Ynn5AfRK?usp=drive_link

3.2. Site structural and layout photos

Detailed photos of structural building integrity and proposed layout locations can be found at the below link.

https://drive.google.com/drive/folders/18EWhnlxCK_fZUTbxou1PM1Df5PBSJG8f?usp=drive_link

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