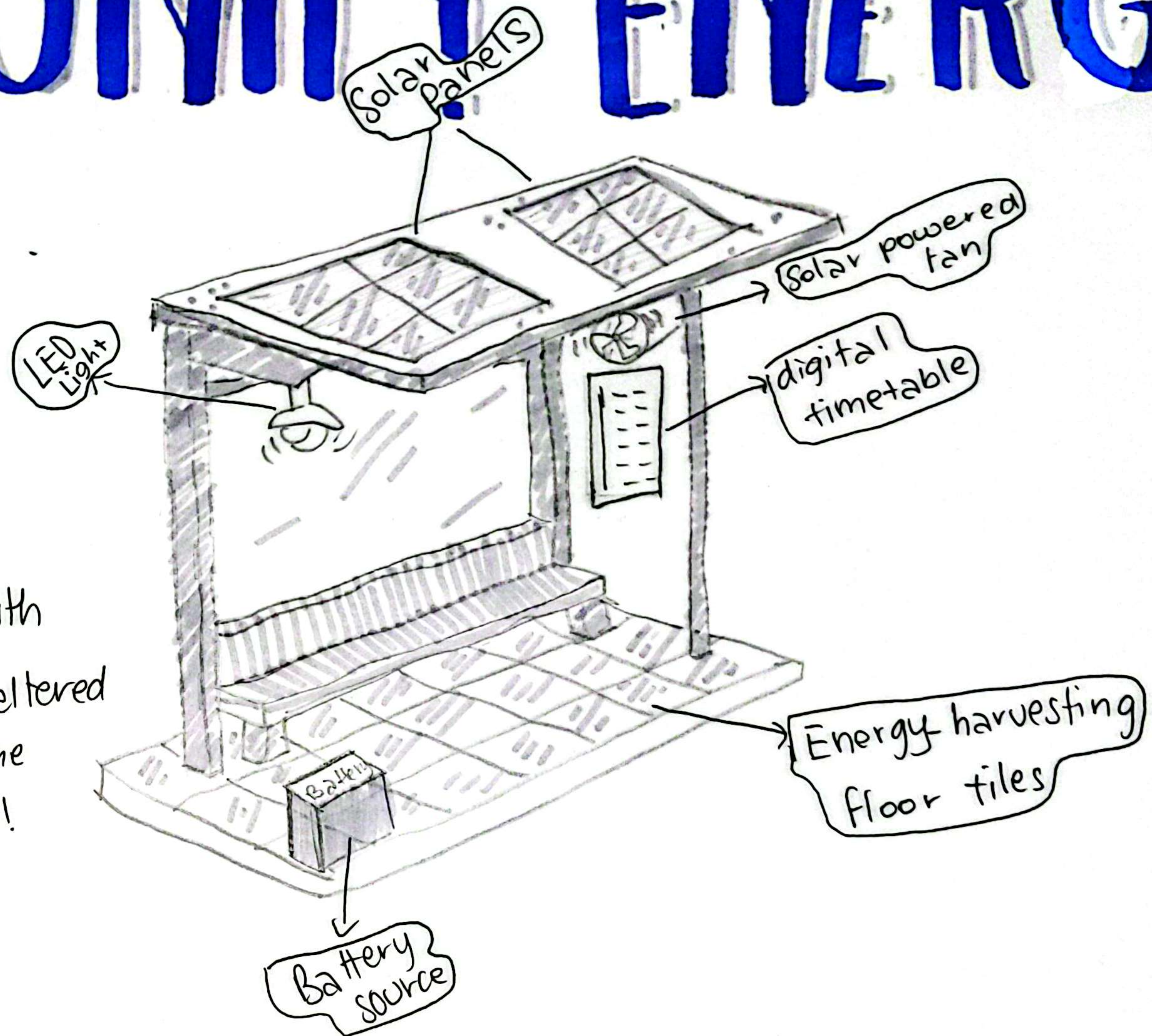


COMMUNITY ENERGY

Here is how I
visualise my idea:

I hope this helps with
keeping us cool and sheltered
at bus stops during the
summer ahead of us!



bus stop

Snowy hydro POWER-UP Competition!!!

Topic: Community Energy Bus stops

300 word explanation:

In Parramatta, one of the major challenges faced by commuters is the lack of sheltered and comfortable bus stops. Many existing stops leave people standing under the harsh sun without shade, cooling, or proper protection. This not only makes waiting uncomfortable but can also be unsafe during extreme heat. At the same time, current stops rely on the grid for lighting and provide no way to generate or store their own renewable energy. This is a missed opportunity to make public transport both sustainable and commuter-friendly.

My idea is the Community Energy Bus Stop, a design that is both functional and environmentally responsible. By integrating solar panels and energy-harvesting floor tiles, these bus stops would create shaded, self-powered spaces that benefit everyone.

The solar roof panels serve a dual purpose: they provide shade while generating clean electricity. Piezoelectric floor tiles convert footsteps into usable energy, making each commuter part of the power system. This energy is stored in a battery source, ensuring the bus stop runs efficiently day and night.

The stored energy powers solar fans and misting systems, keeping passengers cool during Parramatta's hot summers. At night, LED lights improve visibility and safety, while a digital timetable display keeps commuters informed in real time. If excess energy is produced, it can support nearby streetlights or even feed back into the grid, extending the benefits beyond the bus stop itself.

This design is realistic and tailored to Parramatta's needs. It turns ordinary bus stops into sustainable community hubs that protect commuters while contributing to a cleaner city. By reimagining these everyday spaces, we create a future where waiting for the bus is safe, shaded, and powered entirely by renewable energy.