

DAKABIN  
CROSSING

# INTEGRATED TECHNOLOGIES FACT SHEET

Pursuing sustainability, convenience and innovation by incorporating emerging technologies into the development of the precinct to build for the future and provide solutions for investors and homeowners.



# THE DAKABIN CROSSING PRECINCT GRID

An amazing 800kW distributed solar micro grid and a 2.2MWh central battery storage provides 90% of the precincts' power.

This solar micro grid is affectionately referred to as The DCP Grid and effectively reduces the precinct's environmental footprint as well as the energy bills for tenants.

It is the brainchild of KEP Solutions - engineering and renewable energy experts headed by Engineering Manager Vincent van Kampen who is passionate about making renewable energy affordable and work for everyone.

## SPECIFICATIONS

All homes within the precinct are fitted with solar panels that then feed into the Power Hub and central battery system onsite.

The solar power captured is then redistributed to the homes and 2.2MWh central battery system. Any surplus is sold into the grid and any shortfall is bought from the grid.

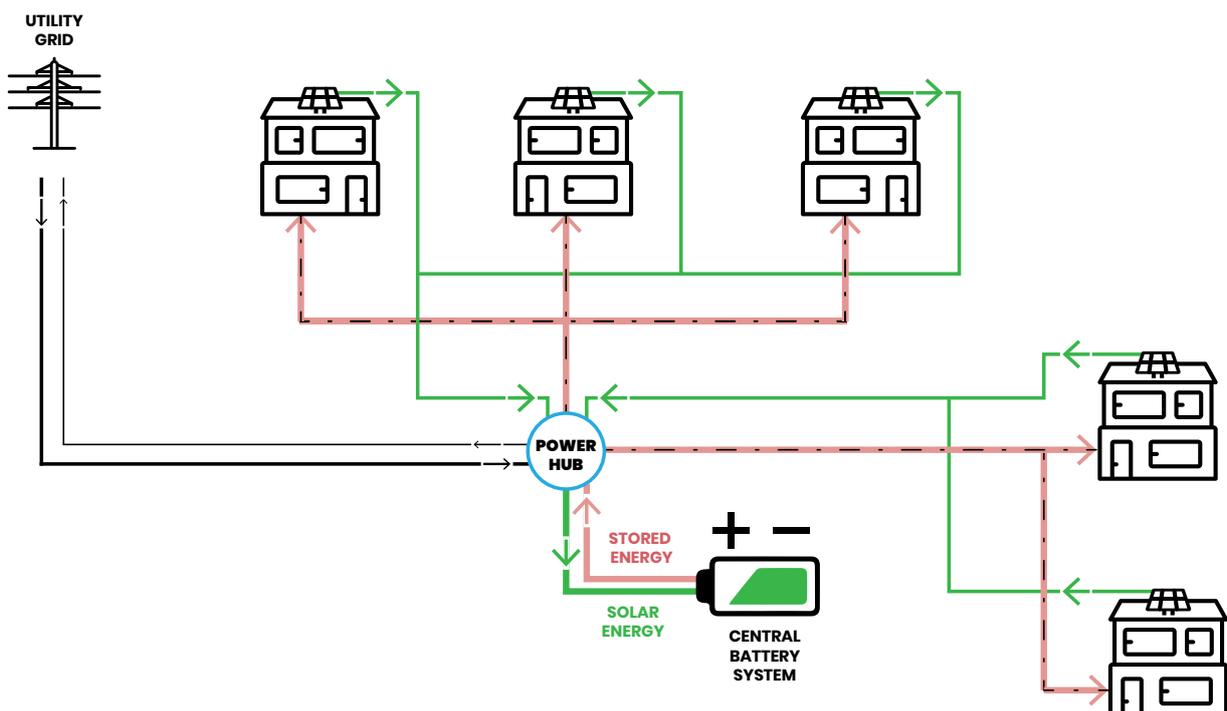
Uniquely, if one home uses less than it generates than another home, the available energy is then transferred from one home to the other via the Power Hub.

This Power Hub is the brain of the DCP Grid designed and built by KEP Solutions exclusively for the Dakabin Crossing precinct.

## THE POWER HUB

Effectively, the Power Hub is a controller - controlling energy flow in multiple directions, energy quality and grid protection. It oversees the complete energy system including keeping record of the flow and running meter checks.

Once private energy trading becomes a reality in Australia, the Power Hub can be switched to an energy trading system, further optimising energy costs to either store energy, procure energy, or use the energy from the central battery system.



## ADVANTAGES OF THE DCP GRID

- Uses the sun's renewable energy rather than relying on the national power grid.
- Is a cheaper energy option for tenants.
- Can isolate itself during blackouts.
- Reduces body corporate fees for investors and owners.
- Environmentally sustainable by running on 60-80% (depending on performance) of locally generated renewable energy.



## WATER MANAGEMENT

Specialist hydraulic engineers have constructed four underground detention systems within the Dakabin Crossing precinct grounds. These detention systems capture and store stormwater in exclusively built tanks beneath the residential development.

Rain water detention systems are a sustainable way to capture and manage alternative sources of water effectively.

For example, the rainwater harvested is used for ground maintenance, car-wash stations and flush toilet systems within the precinct. It has an added benefit of decreasing stormwater runoff which helps reduce local flooding and land erosion.

Underwater tanks economise space within the precinct making more room for more amenities and living whilst also storing the water at a steady temperature.

## THE FUTURE OF THE DCP GRID

As the Australian grid evolves, this system can isolate itself from the grid during blackouts, and or supply grid support services to help stabilise the grid or improve its energy quality beyond just this community.

The DCP Grid is a window to the future where a continual increase in decentralised generators will form the energy grid, and energy can be traded between private parties.



## SMART HOMES

Innovative technology is also available within the homes as added security solutions including:

### **Lock system:**

Digital deadbolt locks that feature both turn-key and touchscreen pin code access. Give your pin code to family or go for a run around the precinct without the need to bring your keys.

### **Doorbell:**

A smart doorbell that detects motion at your front door; sends a notification to your mobile, tablet or PC; speak to visitors in real time from anywhere.

### **Smoke alarm:**

Real time alerts sent directly to your smartphone for instant notification of a fire or high carbon monoxide levels.

**These solutions will be included within all Stage 3B townhouses and are available for upgrades for existing townhouses.**



## SAFE PRECINCTS

Building a secure community and ensuring all residents feel safe in their own homes and around the precinct is paramount.

The precinct has been fitted with several CCTV security cameras to ensure community safety is strengthened.

Whilst Dakabin Crossing is a safe community within a catchment that reports lower crime rate numbers compared to other neighbouring catchments, crime can never be entirely prevented.

To mitigate these risks, the installed cameras help reduce crime levels by deterring potential offenders and aid apprehension of offenders.

There are also future plans to install a duress button within the precinct that when activated, will send an alarm to onsite management for assistance.

## FAST INTERNET CONNECTION

Work from home, stream movies, play games online and browse the internet with ease using The National Broadband Network (NBN).

Dakabin Crossing provides residents with access to this new fibre-optic technology for an enjoyable online experience.

NBN offers download speeds that are a whopping four times faster than ADSL2+ with up to 100Mbps.

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### CONTACT US TODAY TO BE PART OF OUR SUSTAINABLE COMMUNITY

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