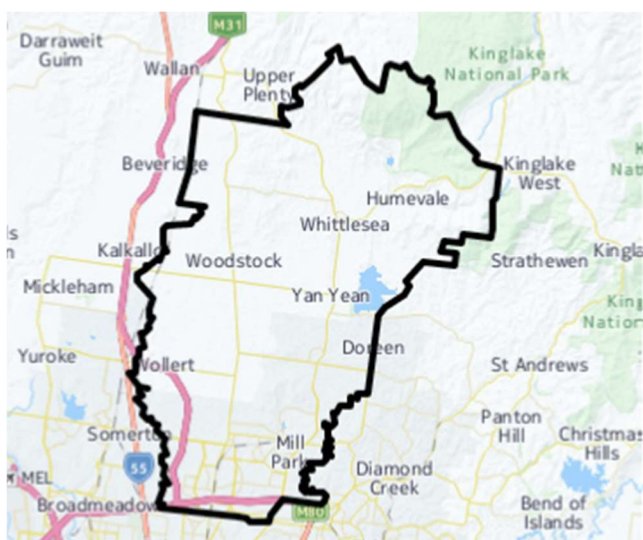


Growing Suburbs Fund 2022-23

The Growing Suburbs Fund (GSF) is a \$425M contribution to support the delivery of high priority community infrastructure projects for Victoria's diverse and fast-growing outer suburbs. Designed to support the existing and future local infrastructure needs of Melbourne's interface and peri-urban communities, the GSF brings forward local infrastructure projects that are essential to the liveability of outer suburban families.

City of Whittlesea



City of Whittlesea is located about 20 km north of the Melbourne Central Business District. The southern parts of the city are established urban areas and current residential developments are extending towards the north of the municipality. City of Whittlesea is home to an ethnically diverse community, with more than half of the residents from non-English speaking backgrounds.

City of Whittlesea is part of the interface council area and recorded a growth rate of 2.7% in 2019-20¹. The population is projected to grow from 236,539 in 2020 to about 364,453 or 54.1% per cent by 2036².

Victoria's population growth slowed during the pandemic period with the impact over this time mainly felt in the inner and middle suburbs of Melbourne; regional areas were less affected due to increased migration from Melbourne. Based on the latest available data, areas across Victoria are now expected to return to normal rates and patterns.

Community Energy Transition Program

Various locations

The Growing Suburbs Fund will assist the City of Whittlesea to deliver solar PV systems & battery storage to reduce facility operating costs for community groups, enabling savings to be reinvested into expanded and additional programs.

This scope of the project includes:

- 192 kW of solar PV on 19 community facilities, including 81 kWh of battery storage on six community activity, pavilions, and child services centres,
- De-gas 10 kindergartens and two community centres

Expected date of commencement: July 2023

Expected date of completion: December 2023

Total Project Cost: \$500,000

Growing Suburbs Fund: \$250,000

Other contributions:

- City of Whittlesea: \$250,000

The other projects in the City of Whittlesea to receive funding from the 2022-23 Growing Suburbs Fund are:

- Whittlesea Township Park—Connecting Community Through Improved Access (\$500,000)
- Mill Park Reserve Connecting Shared Trails (\$475,000)
- Riverside Community Activity Centre and Reserve Upgrades (\$500,000)
- Epping Community Services Hub Refurbishment (\$375,000)

¹ ABS Regional Population Growth, March 2022

² Victoria in Future, 2019

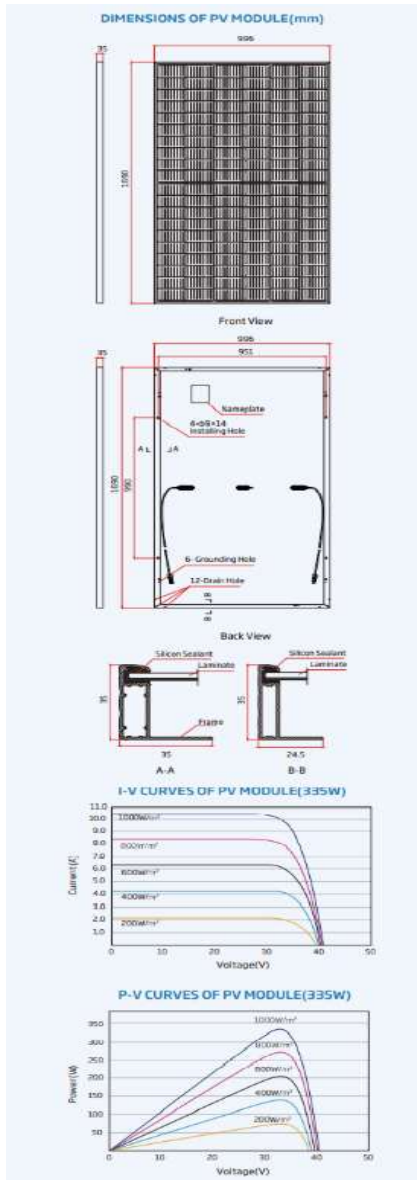


Figure 1- Product Specifications

ELECTRICAL DATA (STC)						
Peak Power Watts- P_{MAX} (Wp)*	310	315	320	325	330	335
Binning Tolerance- P_{MAX} (W)	0 ~ +5					
Maximum Power Voltage- V_{MPP} (V)	33.0	33.2	33.4	33.6	33.8	34.0
Maximum Power Current- I_{MPP} (A)	9.40	9.49	9.58	9.67	9.76	9.85
Open Circuit Voltage- V_{OC} (V)	39.9	40.1	40.3	40.4	40.6	40.7
Short Circuit Current- I_{SC} (A)	10.00	10.10	10.20	10.30	10.39	10.48
Module Efficiency η_m (%)	18.4	18.7	19.0	19.3	19.6	19.9

STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5.
*Measuring tolerance: ±3%.

ELECTRICAL DATA (NMOT)						
Maximum Power- P_{MAX} (Wp)	235	238	242	246	250	254
Maximum Power Voltage- V_{MPP} (V)	30.9	31.1	31.3	31.4	31.6	31.7
Maximum Power Current- I_{MPP} (A)	7.59	7.66	7.74	7.83	7.91	7.99
Open Circuit Voltage- V_{OC} (V)	37.7	37.9	38.0	38.1	38.3	38.4
Short Circuit Current- I_{SC} (A)	8.05	8.13	8.21	8.29	8.36	8.44

NMOT: Irradiance at 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s.

MECHANICAL DATA	
Solar Cells	Monocrystalline
Cell Orientation	120 cells (6 × 20)
Module Dimensions	1690 × 996 × 35 mm (66.54 × 39.21 × 1.38 inches)
Weight	18.0 kg (39.7 lb)
Glass	3.2mm (0.13 inches), High Transmission, AR Coated Tempered Glass
Encapsulant Material	EVA
Backsheet	Black-White
Frame	35 mm (1.38 inches) Anodized Aluminium Alloy
J-Box	IP 68 rated
Cables	Photovoltaic Technology Cable 4.0mm ² (0.006 inches ²), Portrait: N 280mm/P 280mm(11.02/11.02inches) Landscape: N 1200 mm /P 1200 mm (47.24/47.24 inches)
Connector	PV-KBT4(female),PV-KST4(male) / TS4

TEMPERATURE RATINGS		MAXIMUM RATINGS	
NMOT (Nominal Module Operating Temperature)	41°C (±3°C)	Operational Temperature	-40 ~ +85°C
Temperature Coefficient of P_{MAX}	-0.36%/°C	Maximum System Voltage	1000V DC (IEC)
Temperature Coefficient of V_{OC}	-0.26%/°C		1000V DC (UL)
Temperature Coefficient of I_{SC}	0.04%/°C	Max Series Fuse Rating	20A

(Do not connect Fuse in Combiner Box with two or more strings in parallel connection)

WARRANTY		PACKAGING CONFIGURATION	
12 year Product Workmanship Warranty		Modules per box: 30 pieces	
25 year Power Warranty		Modules per 40' container: 780 pieces	

(Please refer to product warranty for details)

You can find out about other Growing Suburbs Fund projects at <https://www.localgovernment.vic.gov.au/grants/growing-suburbs-fund>.

For more information about the Growing Suburbs Fund, please contact gsf@ecodev.vic.gov.au.

Authorised by The Hon. Melissa Horne MP, Minister for Local Government

Department of Government Services
1 Spring Street Melbourne Victoria 3000
Department of Government Services 2023

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