Cost Comparison

SW-AU-C-155 vs. Other Commercial Fans

Victorian Average Electricity Price

$0.27 per kilowatt (as of December 2023).

Source: https://www.momentumenergy.com.au/blog/average-electricity-bill

Natural Airflow refers to the amount of air movement that the fans generate without the aid of mains power. For Solar Whiz, this measurement is the airflow generated when the unit operates on solar power only. For Bradford's this measurement is the airflow generated when the unit operates only with wind power. Fantech does not operate using natural means.

	Solar Whiz SW-AU-C-155	Bradford EcoPower® 900	Fantech CD564D
Airflow (Natural, m^3/h)	**10,000** Full Sun	1,200 10K winds 2,500 18K winds	N/A
Airflow (Powered, m^3/h)	**10,000**	10,000	9,720
Power Usage	**100W**	204W	2240W

Operational Costs

Operating on mains power 260 days a year (working days), running for 8 hours a day.

The below operational cost assumes the Solar Whiz unit is running completely on mains power. Usually our SW-AU-C-155 units are run using 100% solar power. This would make the running costs zero. Additionally, if the Solar Whiz unit is running on solar power it will operate as long as there is enough sun, as opposed to a dedicated 8 hours of operation.

If the Solar Whiz unit was 'topped up' on mains electricity 4 hours a day (half the work day) during low-light conditions would amount to $28.38 per year.

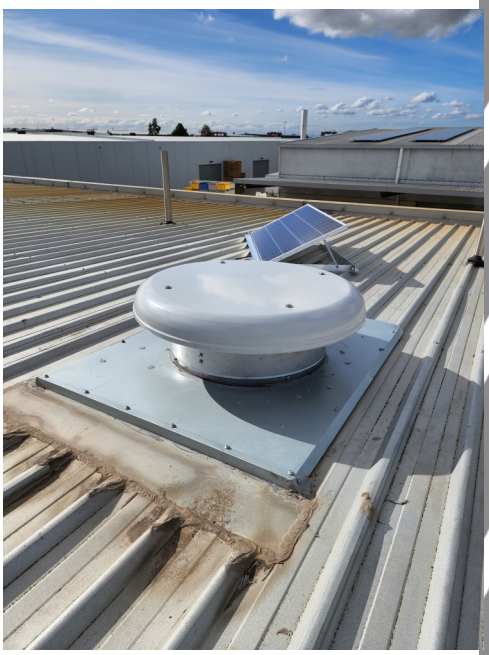
Equations

Electricity price × Power Usage (kW) = Hourly Cost

Hourly Cost × Hours Running = Daily Cost

	Solar Whiz SW-AU-C-155	Bradford EcoPower® 900	Fantech CD564D
Total cost per hour	$0.027	$0.056	$0.611
Total cost per day	$0.218	$0.445	$4.890
Total cost per year (260 days a year)	$56.763	$115.797	$1271.496

A Commercial Solar Whiz unit with a solar panel costs $2795. so the cost savings for operating an SWC vs a Fantech CD564D unit will pay for an SWC unit in less than 3 years - even if you have to 'top-up' the unit with mainspower!



Bradford's EcoPower900 uses windpower as a natural form of energy. This is an incredibly unreliable power source when compared to solar power. EcoPower900 has an airflow rating of 2,500 in 18K winds. However, the average wind speed in Melbourne is 14.2km/h. This makes it difficult to know if the fan will be operating as well as it could be on any given day. Relying on wind power also means that the unit is likely to operate when you don't need or want it to (eg overnight or on cold wintery days).

These figures are not reflective of actual conditions that will have an impact on thermostatic controls, excessive winds, lack of sunlight or varying electrical prices. We have not factored in periods of typically higher or lower usage.

Solar Whiz mains electricity top up is arranged via a constant current module.