



Denman
Prospect

Solar fact sheet

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Solar overview

Denman Prospect was the first Australian suburb to have a minimum requirement for solar power for every home. An average home in Canberra with a system above 3kW will generate over 4,000kWh of clean electricity, reducing emissions from fossil fuel power by approximately 3.7 tonnes a year, which is about the same as taking one average Australian car off the road.

Based on a typical annual electricity consumption of 7,000 kWh for new, six-star homes, and based on current residential tariffs, a 3.7kW solar system will reduce a homeowner's annual electricity bill from approximately \$1500 to \$1000, which equates to a saving of a third, noting it will vary from year to year and from home to home.

Home design

When designing your home you should consider the layout of the solar panels and incorporate it in your home design. PV arrays are to be shown on design drawings which are submitted for building and siting drawings. Efficiency of solar panels can vary significantly, depending on the tilt angle, the orientation, adjacent overshadowing elements and yearly weather conditions. Please refer to the design and siting guidelines for more information.

Solar irradiation guide

For clarity the maximum efficiency (100%) for the solar panels is facing north and the panels are placed on a roof with a 30 degree pitch. This table should be used as a guide only where it shows the yield as a percentage (%) as a proportion to the ideal installation for combinations to be installed.

Plane Azimuth is orientation of the PV Panels (0 =North, 90 = East, 180 = South, 270 = West) and Plane Inclination is the angle of the PV panels (0 = flat, 30 = standard roof pitch, 90 = vertical like a window).

ANNUAL DAILY IRRADIATION ON AN INCLINED PLANE EXPRESSED AS % OF MAXIMUM VALUE FOR CANBERRA

Plane Azimuth (degrees)	Plane Inclination (degrees)									
	0	10	20	30	40	50	60	70	80	90
0	87%	94%	98%	100%	99%	96%	91%	83%	74%	64%
10	87%	94%	98%	99%	99%	96%	91%	83%	74%	64%
20	87%	93%	97%	99%	98%	95%	90%	83%	74%	64%
30	87%	93%	96%	98%	97%	94%	89%	82%	73%	64%
40	87%	92%	95%	96%	95%	92%	87%	80%	72%	63%
50	87%	92%	94%	94%	93%	89%	84%	78%	70%	62%
60	87%	91%	92%	92%	90%	86%	81%	75%	68%	61%
70	87%	90%	90%	89%	87%	83%	78%	72%	66%	59%
80	87%	89%	88%	87%	84%	80%	75%	69%	63%	56%
90	87%	88%	86%	84%	80%	76%	71%	65%	59%	53%
100	87%	87%	84%	81%	77%	72%	67%	61%	56%	50%
110	87%	86%	82%	78%	73%	68%	62%	57%	51%	46%
120	87%	85%	80%	75%	69%	63%	58%	52%	47%	42%
130	87%	84%	78%	72%	66%	59%	53%	48%	43%	38%
140	87%	83%	77%	70%	62%	55%	49%	44%	39%	35%
150	87%	82%	76%	68%	60%	52%	45%	40%	35%	32%
160	87%	82%	75%	66%	57%	50%	42%	36%	33%	29%
170	87%	82%	74%	65%	56%	48%	41%	35%	30%	28%
180	87%	81%	74%	65%	56%	48%	40%	34%	30%	27%
190	87%	81%	74%	65%	56%	48%	41%	35%	30%	28%
200	87%	82%	74%	66%	57%	50%	42%	36%	32%	29%
210	87%	82%	75%	67%	59%	52%	45%	40%	35%	32%
220	87%	83%	77%	69%	62%	55%	49%	43%	39%	35%
230	87%	84%	78%	72%	65%	59%	53%	48%	43%	38%
240	87%	84%	80%	74%	68%	63%	57%	52%	47%	41%
250	87%	85%	82%	77%	72%	67%	62%	56%	51%	45%
260	87%	86%	84%	80%	76%	71%	66%	61%	55%	49%
270	87%	87%	86%	83%	79%	75%	70%	65%	59%	52%
280	87%	89%	88%	86%	83%	79%	74%	68%	62%	55%
290	87%	90%	90%	89%	86%	82%	77%	71%	65%	58%
300	87%	91%	92%	91%	89%	85%	81%	74%	67%	60%
310	87%	91%	93%	94%	92%	88%	83%	77%	70%	61%
320	87%	92%	95%	96%	94%	91%	86%	79%	71%	63%
330	87%	93%	96%	97%	96%	93%	88%	81%	73%	63%
340	87%	93%	97%	98%	98%	95%	89%	82%	74%	64%
350	87%	94%	98%	99%	99%	95%	90%	83%	74%	64%

The PV system

All systems must meet the 3.7kW requirement mandated in the Denman Prospect Building and Siting Guidelines.

You have the option to go with our solar provider, Harvey Norman Commercial, or use your own. If you choose to use your own provider, you must seek approval from our Design team prior to installation.

Harvey Norman Commercial are familiar with the solar requirements in Denman Prospect and can provide options for inverters that adhere to the Denman Prospect Building and Siting Guidelines.

Harvey Norman Commercial will provide you with the best possible options available, along with:

- 25 year warranty on solar panels*
- 10 year warranty on inverters*
- 10 year warranty on installation and workmanship covering any defects in the works carried out by Harvey Norman Commercial's accredited installers

*If any of installed components become unavailable for any reason, Harvey Norman Commercial Solar will use reasonable endeavours to replace the unavailable component with a component of like quality, functionality and cost.

Installation process overview

Installation of a PV System in a new residential premises is best done in three stages: electrical cable rough-in and panel installation followed inverter fit-off then final certification.

Stage 1 - Rough-in electrical cables and install panels

- Rough-in and panel installation is completed by Harvey Norman Commercial before houses are sheeted, usually at the same time as a typical electrical rough-in.
- The builder and/or land owner are to provide Harvey Norman Commercial no less than 3 weeks' notice that a rough-in is required to be completed at particular Premises.
- Harvey Norman Commercial requires builder scaffolding to complete the work. Estimated time for Harvey Norman Commercial Solar to rough-in is 2 business days.

Stage 2 - Fit-off inverter

- Fit-offs are completed by Harvey Norman Commercial towards the end of a build, once the roof is completely installed and switchboard work is completed as permanent power is required. This needs to be at lock up stage so that inverters are secure after install.
- The builder and/or land owner are to provide Harvey Norman Commercial no less than 3 weeks' notification that a fit-off is required to be completed at particular Premises.
- The builder and/or land owner shall ensure that Harvey Norman Commercial's STC assignment form are signed and returned to Harvey Norman Commercial at fit-off.
- Estimated time for Harvey Norman Commercial to fit-off is 2 business days.

Stage 3 - Final inspections and certifications

- The builder and/or land owner are to advise Harvey Norman Commercial no less than 3 weeks' notification when a Certificate of Occupancy has been obtained for each Premises.
- Harvey Norman Commercial will book ACTPLA solar inspection and advise inspection date to the builder and/or land owner.
- ACTPLA complete solar inspection and copies of certification will be provided to the builder and/or land owner.
- Should a larger sized system be selected, the builder or land owner will be required to pay Harvey Norman Commercial the difference between Harvey Norman Commercial's quoted price of the larger system and the contract cost of the Denman 3.7kW system (please note that the STCs from the larger system will still remain with Harvey Norman Commercial and are fully assigned to Harvey Norman Commercial or further additional costs will apply).

Standard Standard solar installation

For solar installation, please contact Harvey Norman Commercial by emailing denmanprospect@au.harveynorman.com or phone (02) 6202 2000.

Alternative solar installation

Although there is a minimum 3.7kW solar requirement for each home in Denman Prospect, you may elect to purchase and install your own system instead of purchasing the standard solar installation from Capital Estate Developments.

For more information, and to ensure your home will be compliant, please contact us by phone on (02) 6175 3300 or send an email to design@capitalestate.com.au.