

Solar ProPack

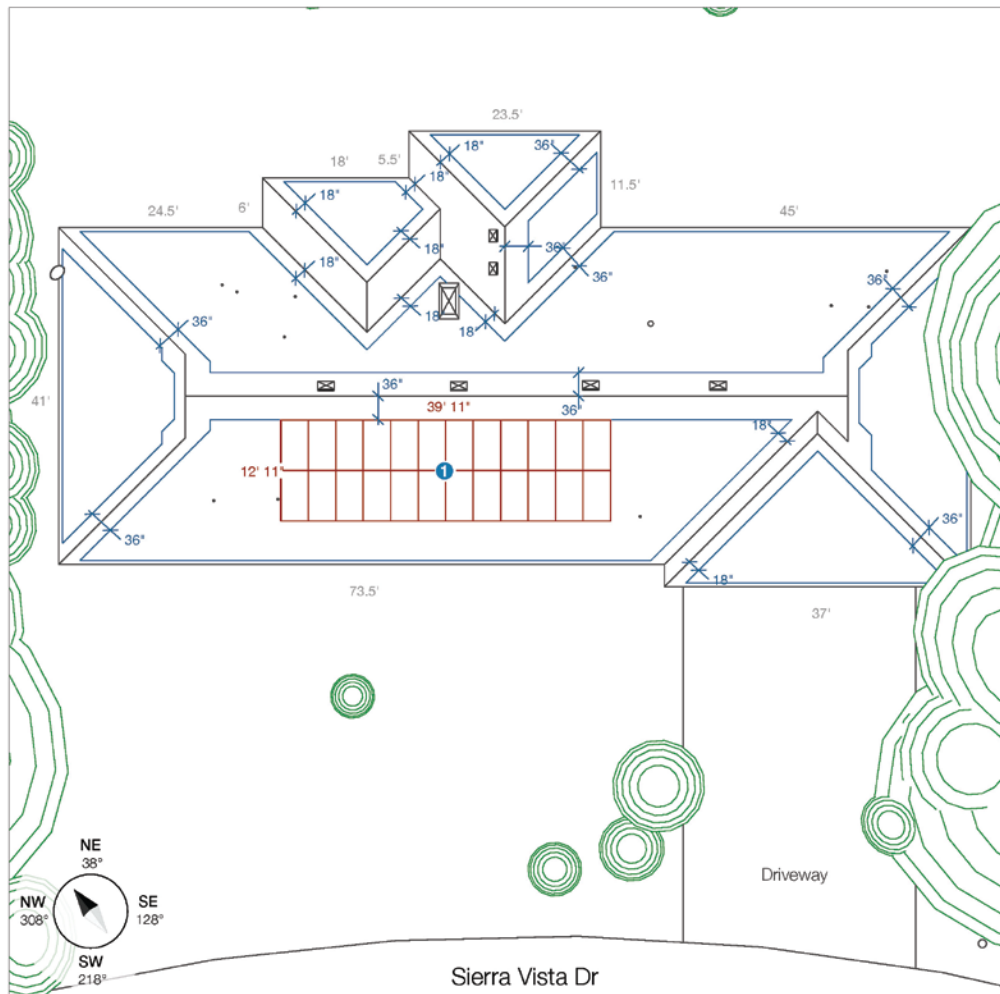
Assessment Service



WHOLESALE
SOLAR

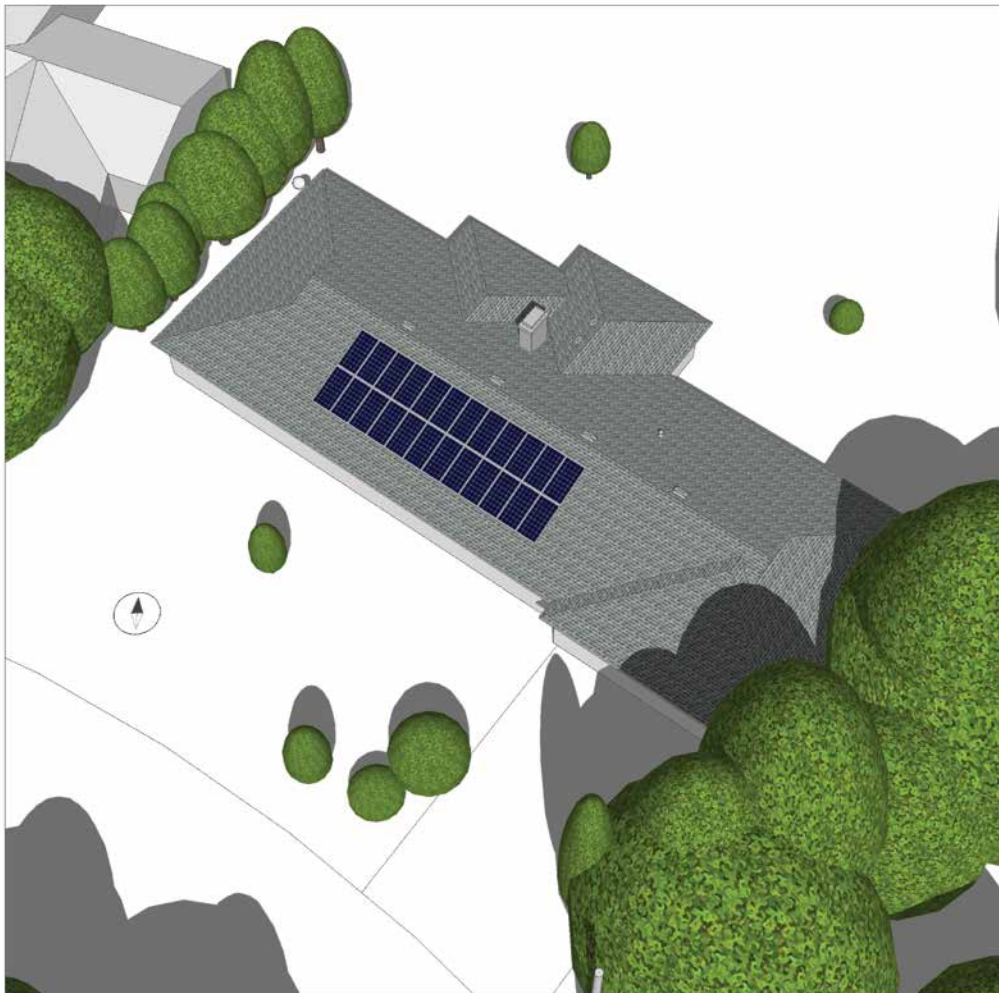
optimal placement options

We provide a scale roof layout and identify available space for panel layouts. This is done using highly accurate satellite imaging and can identify most roof obstructions that need to be avoided or addressed.



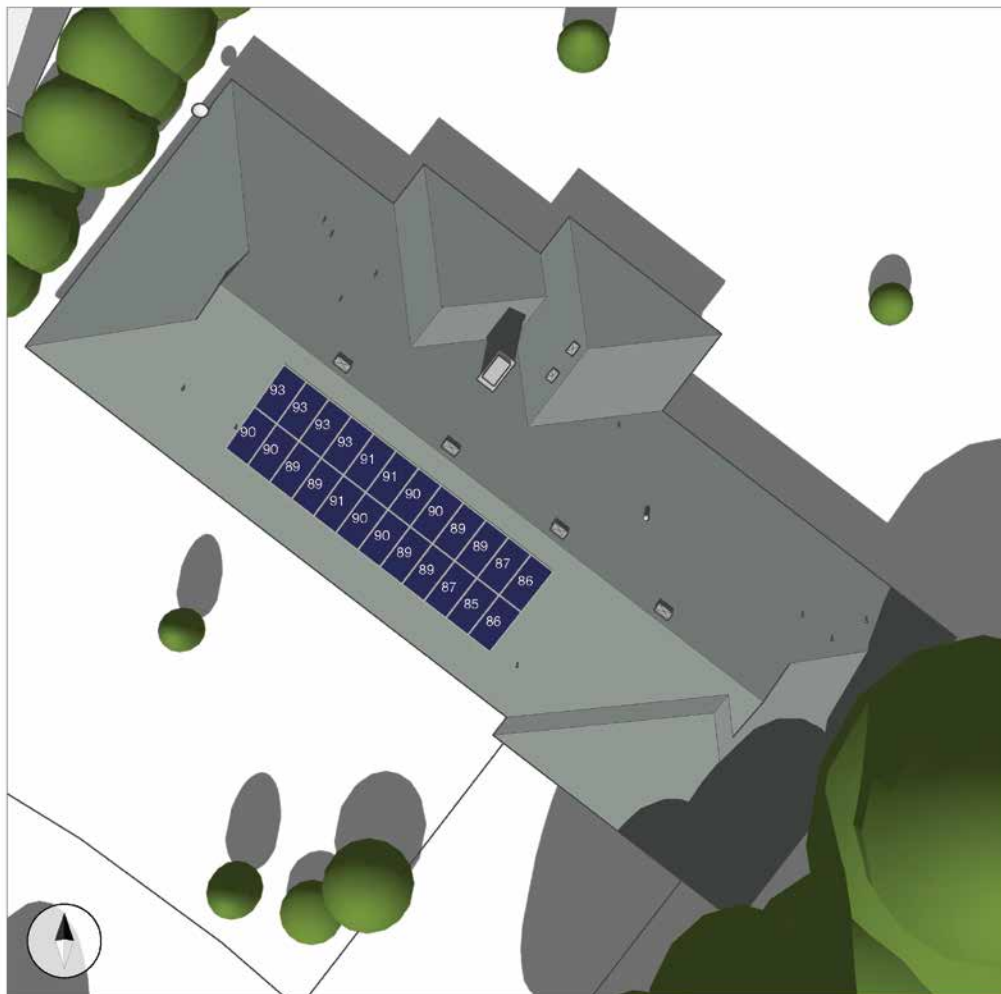
realistic views

Get a glimpse of what your home will look like with solar panels, including 3D imaging with textures. This also shows estimated tree height and thrown shadows.



realistic shading analysis

We identify and avoid shade-affected areas of your roof. As shadows move and fluctuate in size throughout the year, see which modules will be most affected and which areas of your roof to avoid.



production estimates

Receive quick reference charts per array of panels, along with yearly kWh production per array. This is useful when trying to hit an energy production target, and for determining which layout will make the most of your investment.

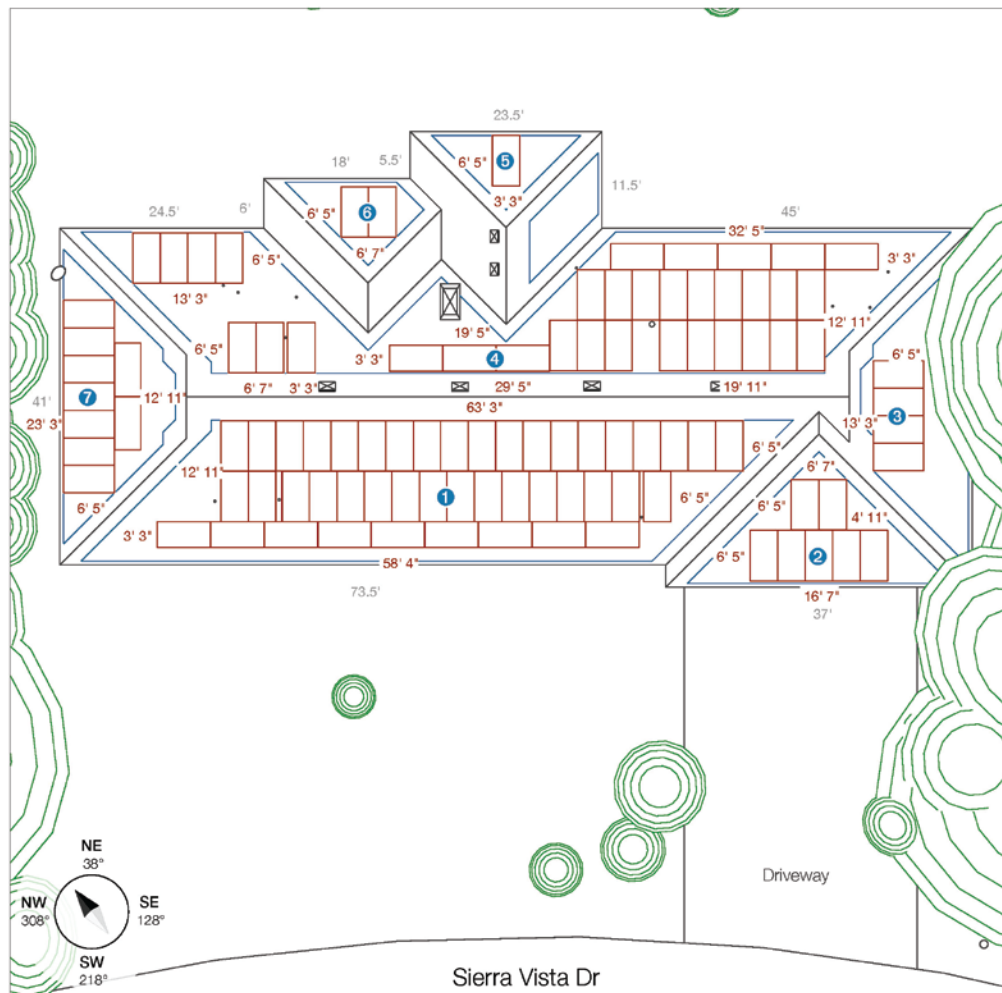
SHADING ANALYSIS			
ARRAY	1	ALL	kWh
January	81	81%	333
February	86	86%	463
March	90	90%	811
April	88	88%	937
May	91	91%	1,089
June	94	94%	1,237
July	93	93%	1,256
August	90	90%	1,172
September	91	91%	964
October	91	91%	738
November	83	83%	430
December	74	74%	343
Summer	92	92%	6,456
Winter	85	85%	3,317
Annual SAV	90	90%	9,773
TSRF	84	84%	

PRODUCTION ESTIMATES			
ARRAY	1	ALL	
Yield (unshaded)	1,493	1,493 kWh/kW/yr	
Shading derate	90	90%	
Yield (shaded)	1,335	1,335 kWh/kW/yr	
Azimuth	218°		
Tilt	18°		
Module count	24	24	
System size	7.32	7.32 kW STC	
Annual energy	9,773	9,773 kWh +/-10%	

PVWatts derate factors	Default	Actual	PVWatts Data Set
Soiling	0.98	0.98	Data: TMY3
Shading	0.97	0.90	Location ID: 725920
Snow	1.00	1.00	Latitude: 40.516998°
Mismatch	0.98	1.00	Longitude: -122.317001°
Wiring	0.98	0.98	Elevation: 153 m
Connections	0.995	0.995	
Light-induced degradation	0.985	0.985	
Nameplate rating	0.99	0.99	
Availability	0.97	0.97	
Overall system derate	0.86	0.814	
Overall system losses	14%	18.6%	
Inverter efficiency	96%	98%	

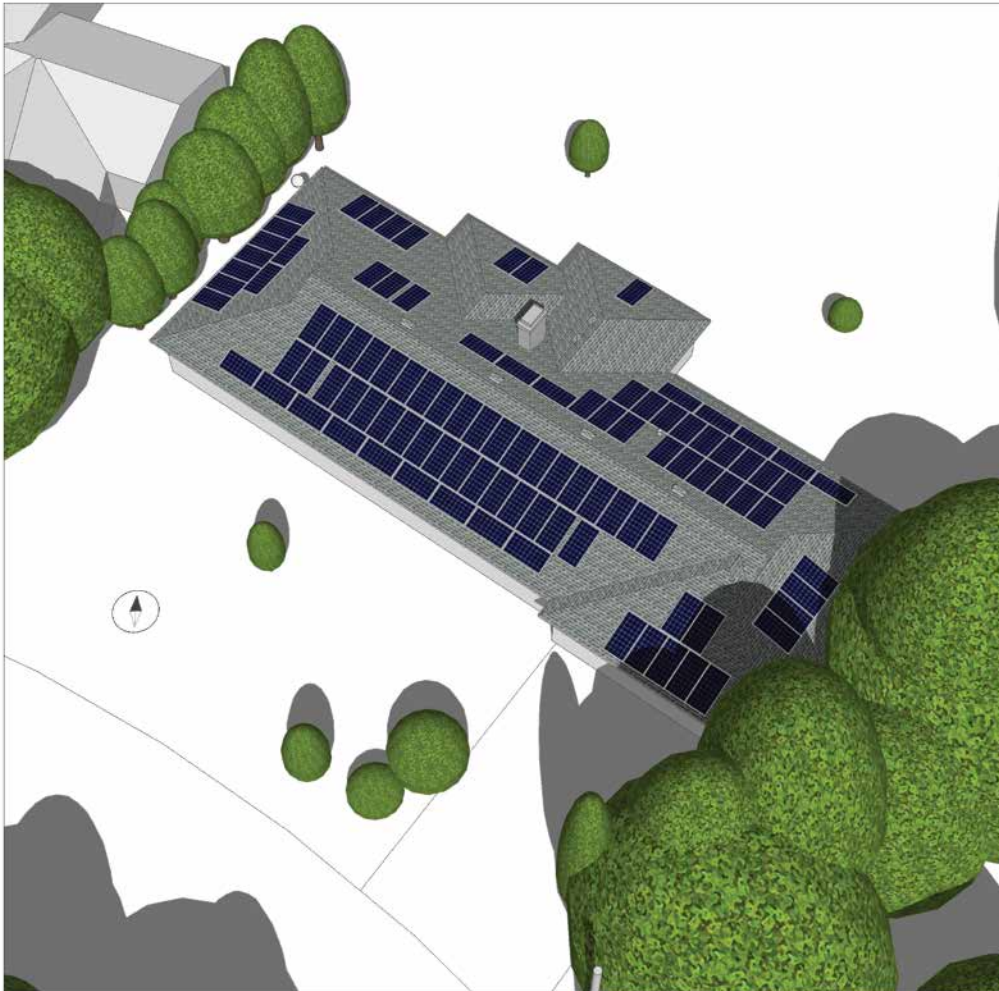
all available layout options

You'll also receive an informative maximization analysis. This allows you to see all available placement options for modules on your roof. With this information you can identify possible overlooked high production spots or get creative when adding as many modules as possible.



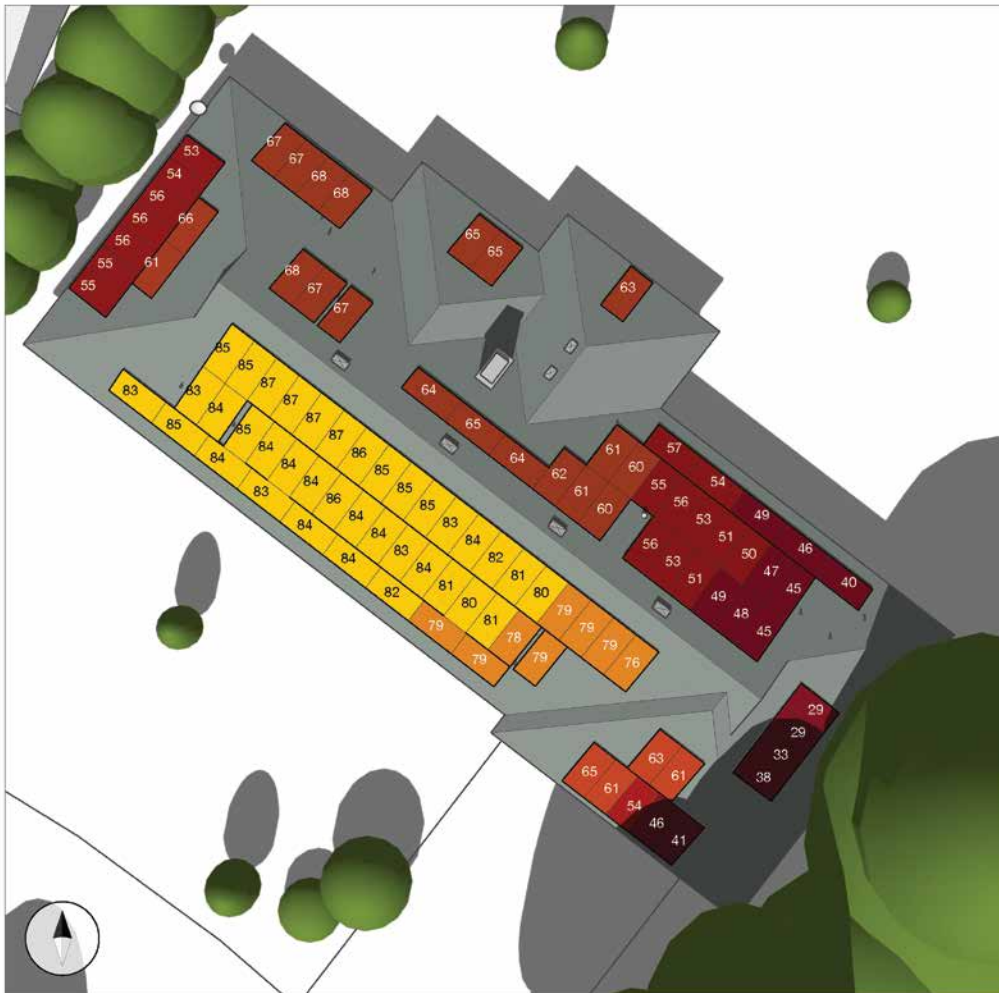
realistic layout option views

Get a glimpse of the aesthetics and look of your home with the maximum amount of solar. 3D imaging with textures are also provided. Also shows estimated tree height and thrown shadows.



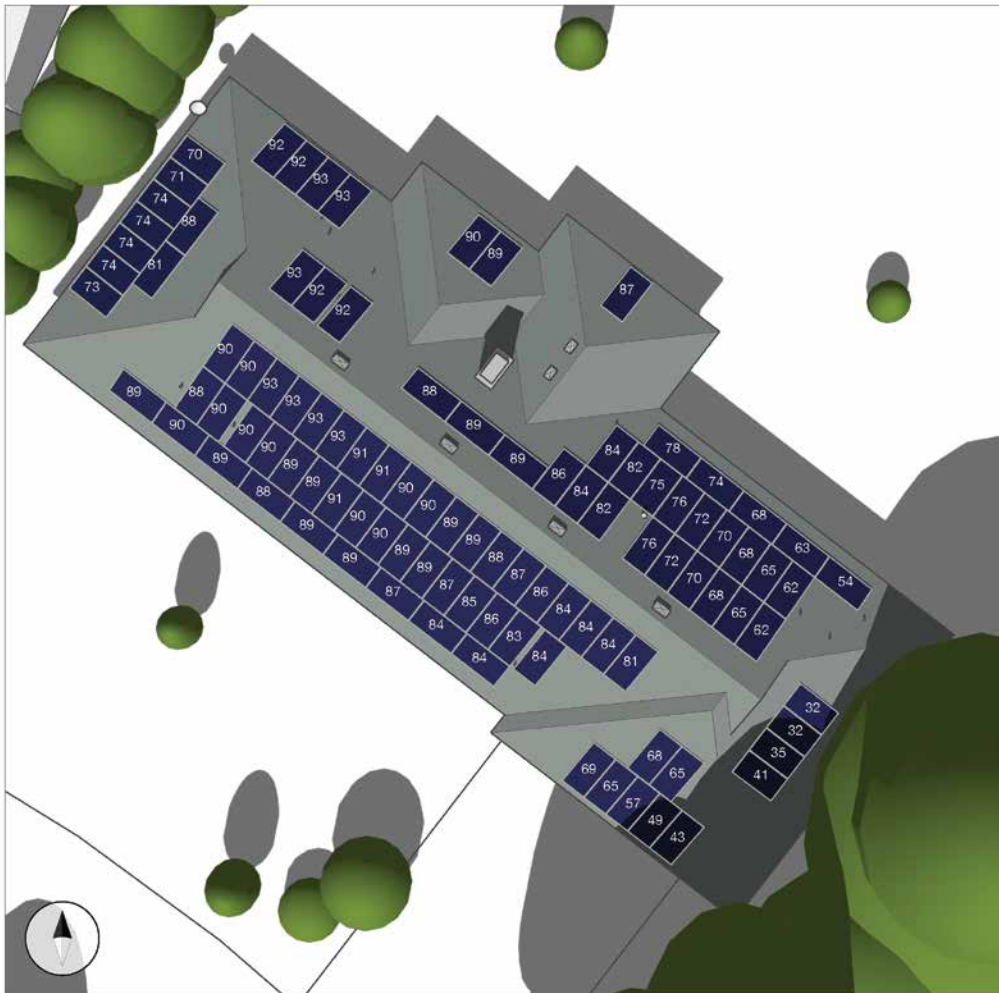
further production values

Know up front what you can expect each panel to produce throughout a year, compared to its lab-tested ratings. This information is based on tilt, orientation and shading info.



further shading analysis

Identify and avoid shade-affected areas of your roof. Shadows move and fluctuate in size, throughout the year. See which panels will be most affected and which areas of your roof to avoid.



further production estimates

Receive quick reference charts per array, along with yearly kWh production per array. This is useful when trying to hit an energy production target, and to determine which array placement will make the most of your investment.

SHADING ANALYSIS									
ARRAY	1	2	3	4	5	6	7	ALL	kWh
January	79	24	16	63	74	65	76	67%	901
February	83	35	18	67	74	77	73	71%	1,305
March	90	50	28	72	74	77	74	77%	2,535
April	88	63	38	75	83	89	77	79%	3,281
May	91	75	48	83	94	94	76	84%	4,061
June	92	80	48	88	95	96	75	87%	4,694
July	92	79	47	85	95	96	75	86%	4,709
August	90	72	40	79	92	96	75	82%	4,158
September	91	56	28	74	75	87	77	79%	3,087
October	89	37	20	68	79	80	77	74%	2,093
November	80	19	14	62	72	71	75	66%	1,107
December	70	18	13	58	74	58	76	60%	852
Summer	91	69	40	81	90	93	76	83%	22,802
Winter	83	42	26	70	78	79	76	73%	9,982
Annual SAV	88	59	35	78	87	89	76	79%	32,784
TSRF	83	56	32	57	63	65	57	68%	

PRODUCTION ESTIMATES									
ARRAY	1	2	3	4	5	6	7	ALL	
Yield (unshaded)	1,493	1,493	1,470	1,166	1,166	1,166	1,197	1,348	kWh/kW/yr
Shading derate	88	59	35	78	87	89	76	79%	
Yield (shaded)	1,319	880	512	909	1,009	1,036	904	1,075	kWh/kW/yr
Azimuth	218°	218°	128°	38°	38°	38°	308°		
Tilt	18°	18°	18°	18°	18°	18°	18°		
Module count	44	7	4	33	1	2	9	100	
System size	13.42	2.135	1.22	10.065	0.305	0.61	2.745	30.5	kW STC
Annual energy	17,706	1,878	624	9,153	308	632	2,483	32,784	kWh +/-10%

PVWatts derate factors	Default	Actual	PVWatts Data Set
Soiling	0.98	0.98	Data: TMY3
Shading	0.97	0.79	Location ID: 725920
Snow	1.00	1.00	Latitude: 40.516998°
Mismatch	0.98	1.00	Longitude: -122.317001°
Wiring	0.98	0.98	Elevation: 153 m
Connections	0.995	0.995	
Light-induced degradation	0.985	0.985	
Nameplate rating	0.99	0.99	
Availability	0.97	0.97	
Overall system derate	0.86	0.714	
Overall system losses	14%	28.6%	
Inverter efficiency	96%	98%	