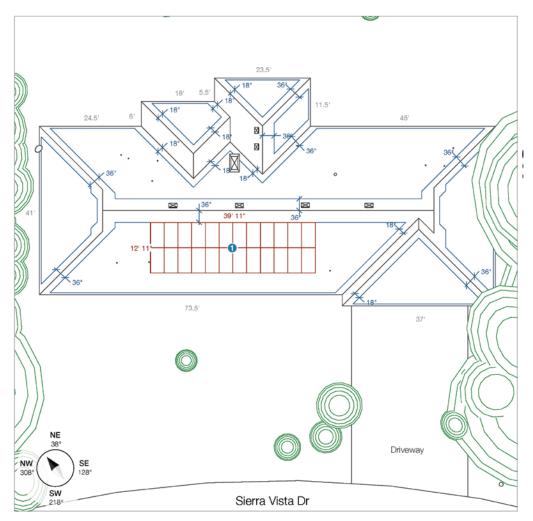


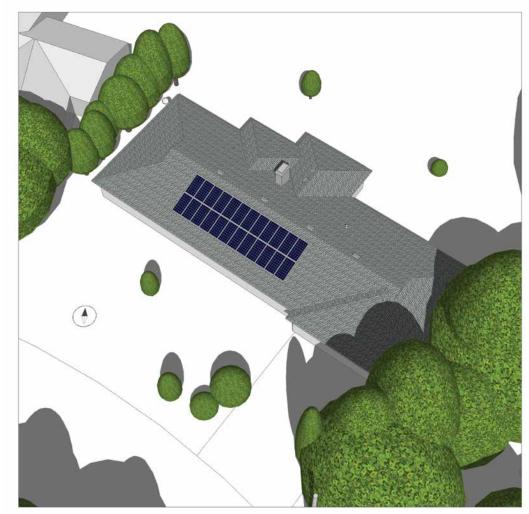
optimal placement options

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

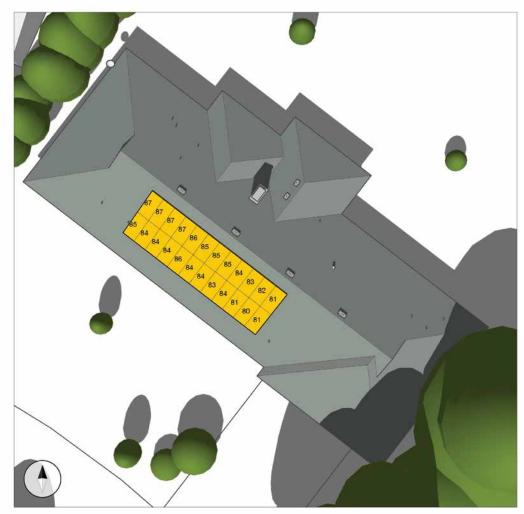
Get a glimpse of what your home will look like with solar panels, including 3D imaging with textures. This also shows estimated tree height and thrown shadows.





expected panel production

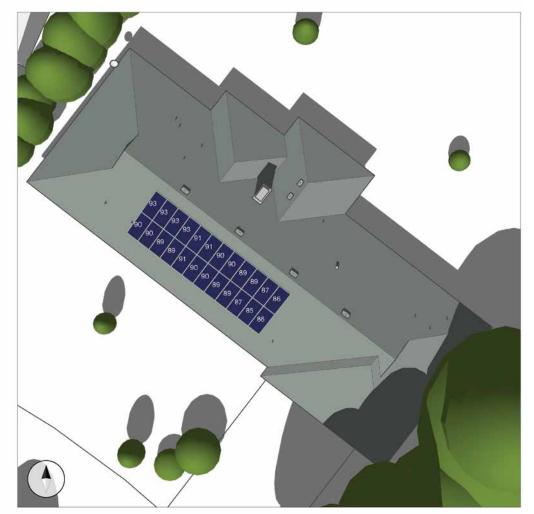
Know up front what you can expect each panel to produce throughout a year, compared to its lab-tested ratings. This information is based on tilt, orientation and shading info.





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

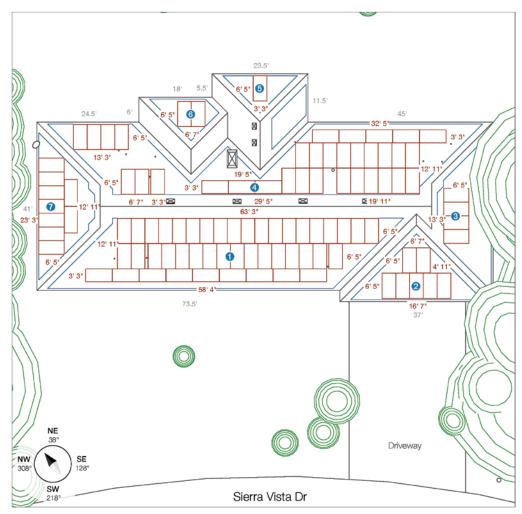
Receive quick reference charts per array of panels, along with yearly kWh production per array. This is useful when trying to hit an energy production target, and for determining which layout will make the most of your investment.

	ANALYSIS		kWh			
ARRAY January	81	ALL 81%	333			
	86	86%	463			
February	90	90%	811			
March						
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%	3,			
PRODUCT ARRAY	0		LL			
ARRAY	0	A	iLL 193 kWh/kW/yr			
ARRAY Yield (unshaded	1) 1,493	A 1,4				
ARRAY Yield (unshaded Shading derate	1) 1,493	A 1,4 90	193 kWh/kW/yr			
ARRAY Yield (unshaded Shading derate Yield (shaded)	1,493 90 1,335	A 1,4 90	193 kWh/kW/yr 0%			
ARRAY Yield (unshaded Shading derate Yield (shaded) Azimuth	1) 1,493 90 1,335 218°	A 1,4 90	193 kWh/kW/yr 0%			
ARRAY Yield (unshaded Shading derate Yield (shaded) Azimuth Tilt	1) 1,493 90 1,335 218° 18°	A 1,4 90	93 kWh/kW/yr 0% 335 kWh/kW/yr			
ARRAY Yield (unshaded Shading derate Yield (shaded) Azimuth Tilt Module count	1,493 90 1,335 218° 18° 24	1,4 99 1,3	93 kWh/kW/yr 0% 335 kWh/kW/yr			
ARRAY Yield (unshaded Shading derate Yield (shaded) Azimuth Tilt Module count System size	1) 1,493 90 1,335 218° 18° 24 7.32	A 1,4 90 1,5	93 kWh/kW/yr 0% 335 kWh/kW/yr 24 32 kW STC			
ARRAY Yield (unshaded Shading derate Yield (shaded) Azimuth Tilt Module count System size	1,493 90 1,335 218° 18° 24	A 1,4 90 1,5	93 kWh/kW/yr 0% 335 kWh/kW/yr			
ARRAY Yield (unshaded Shading derate Yield (shaded) Azimuth Tilt Module count System size Annual energy	1,493 90 1,335 218° 18° 24 7.32 9,773	7 9,7 9,7 Default	93 kWh/kW/yr 0% 335 kWh/kW/yr 24 .32 kW STC 73 kWh +/-10%	PVWatts Data Set		
ARRAY Yield (unshaded Shading derate Yield (shaded) Azimuth Tilt Module count System size Annual energy PVWatts derat Soiling	1,493 90 1,335 218° 18° 24 7.32 9,773	7 7 9,7 Default 0.98	93 kWh/kW/yr 0% 335 kWh/kW/yr 24 .32 kW STC 73 kWh +/-10% Actual 0.98	Data: TMY3		
ARRAY Yield (unshaded Shading derate Yield (shaded) Azimuth Tilt Module count System size Annual energy PVWatts derat Solling Shading	1,493 90 1,335 218° 18° 24 7.32 9,773	7 9,1,3 7 9,7 Default 0.98 0.97	93 kWh/kW/yr 0% 35 kWh/kW/yr 24 32 kW STC 73 kWh +/-10% Actual 0.98 0.90	Data: TMY3 Location ID: 725920		
ARRAY Yield (unshaded Shading derate Yield (shaded) Azimuth Tilt Module count System size Annual energy PVWatts derate Soilling Shading Snow	1,493 90 1,335 218° 18° 24 7.32 9,773	7,9,7 Default 0.98 0.97 1.00	93 kWh/kW/yr 935 kWh/kW/yr 24 .32 kW STC 173 kWh +/-10% Actual 0.98 0.90 1.00	Data: TMY3 Location ID: 725920 Latitude: 40.516998°		
ARRAY Yield (unshaded Shading derate Yield (shaded) Azimuth Tilt Module count System size Annual energy PVWatts derat Soiling Shading Snow Mismatch	1,493 90 1,335 218° 18° 24 7.32 9,773	7,9,7 Default 0.98 0.97 1.00 0.98	93 kWh/kW/yr 0% 335 kWh/kW/yr 24 .32 kW STC 73 kWh +/-10% Actual 0.98 0.90 1.00	Data: TMY3 Location ID: 725920 Latitude: 40.516998° Longitude: -122.317001°	9	
ARRAY Yield (unshaded Shading derate Yield (shaded) Azimuth Tilt Module count System size Annual energy PVWatts derat Soiling Shading Snow Mismatch Wiring	1,493 90 1,335 218° 18° 24 7.32 9,773	7, 9,7 Default 0.98 0.97 1.00 0.98 0.98	93 kWh/kW/yr 0% 335 kWh/kW/yr 24 .32 kW STC 73 kWh +/-10% Actual 0.98 0.90 1.00 0.98	Data: TMY3 Location ID: 725920 Latitude: 40.516998°	o.	
ARRAY Yield (unshaded Shading derate Yield (shaded) Azimuth Tilt Module count System size Annual energy PVWatts derat Soiling Shading Snow Mismatch Wiring Connections	1) 1,493 90 1,335 218° 18° 24 7.32 9,773 e factors	7,9,7 Default 0.98 0.97 1.00 0.98 0.98 0.995	93 kWh/kW/yr 96 935 kWh/kW/yr 24 32 kW STC 73 kWh +/-10% Actual 0.98 0.90 1.00 1.00 0.98 0.995	Data: TMY3 Location ID: 725920 Latitude: 40.516998° Longitude: -122.317001°	o.	
ARRAY Yield (unshaded Shading derate Yield (shaded) Azimuth Tilt Module count System size Annual energy PVWatts derate Soiling Shading Snow Mismatch Wiring Connections Light-induced of	1) 1,493 90 1,335 218° 18° 24 7.32 9,773 e factors	7, 9,7 Default 0.98 0.98 0.995 0.985	93 kWh/kW/yr 98 935 kWh/kW/yr 24 .32 kW STC 173 kWh +/-10% Actual 0.98 0.90 1.00 1.00 0.98 0.995 0.995 0.985	Data: TMY3 Location ID: 725920 Latitude: 40.516998° Longitude: -122.317001°	o	
ARRAY Yield (unshaded Shading derate Yield (shaded) Azimuth Tilt Module count System size Annual energy PVWatts derate Soiling Shading Shading Snow Mismatch Wiring Connections Light-induced of Nameplate ratir	1) 1,493 90 1,335 218° 18° 24 7.32 9,773 e factors	7,9,7 Default 0.98 0.97 1.00 0.98 0.98 0.995 0.995 0.999	93 kWh/kW/yr 96 97 98 98 99 99 99 99 99 99 99 99	Data: TMY3 Location ID: 725920 Latitude: 40.516998° Longitude: -122.317001°	o.	
ARRAY Yield (unshaded Shading derate Yield (shaded) Azimuth Tilt Module count System size Annual energy PVWatts derat Soiling Shading Shading Snow Mismatch Wiring Connections Light-induced of Nameplate ratir Availability	1) 1,493 90 1,335 218° 18° 24 7,32 9,773 e factors	7,9,7 Default 0.98 0.97 1.00 0.98 0.995 0.985 0.995 0.997	93 kWh/kW/yr 0% 335 kWh/kW/yr 24 .32 kW STC 173 kWh +/-10% Actual 0.98 0.90 1.00 0.98 0.995 0.995 0.995 0.995	Data: TMY3 Location ID: 725920 Latitude: 40.516998° Longitude: -122.317001°	o.	
ARRAY Yield (unshaded Shading derate Yield (shaded) Azimuth Tilt Module count System size Annual energy PVWatts derat Soilling Shading Snow Mismatch Wiring Connections Light-induced of Nameplate ratir Availability Overall system	1) 1,493 90 1,335 218° 18° 24 7.32 9,773 e factors	7,97 Default 0.98 0.97 1.00 0.98 0.995 0.995 0.995 0.997 0.86	93 kWh/kW/yr 96 935 kWh/kW/yr 24 32 kW STC 73 kWh +/-10% Actual 0.98 0.90 1.00 1.00 1.00 0.98 0.995 0.985 0.995 0.985 0.997 0.814	Data: TMY3 Location ID: 725920 Latitude: 40.516998° Longitude: -122.317001°	•	
ARRAY Yield (unshaded Shading derate Yield (shaded) Azimuth Tiit Module count System size Annual energy PVWatts derat Soiling Shading Snow Mismatch Wiring	1) 1,493 90 1,335 218° 18° 24 7.32 9,773 e factors	7,9,7 Default 0.98 0.97 1.00 0.98 0.995 0.985 0.995 0.997	93 kWh/kW/yr 0% 335 kWh/kW/yr 24 .32 kW STC 173 kWh +/-10% Actual 0.98 0.90 1.00 0.98 0.995 0.995 0.995 0.995	Data: TMY3 Location ID: 725920 Latitude: 40.516998° Longitude: -122.317001°	5	



all available layout options

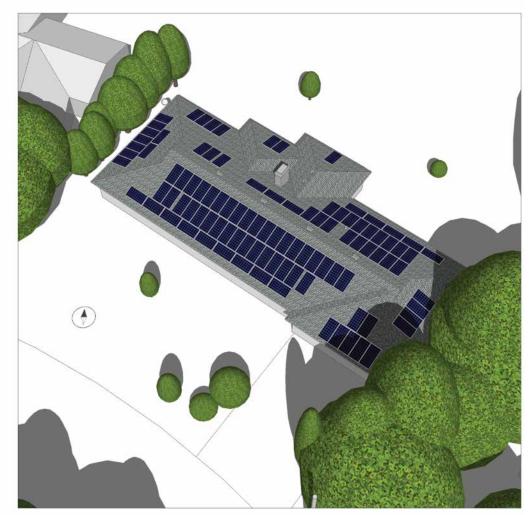
You'll also receive an informative maximization analysis. This allows you to see all available placement options for modules on your roof. With this information you can identify possible overlooked high production spots or get creative when adding as many modules as possible.





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

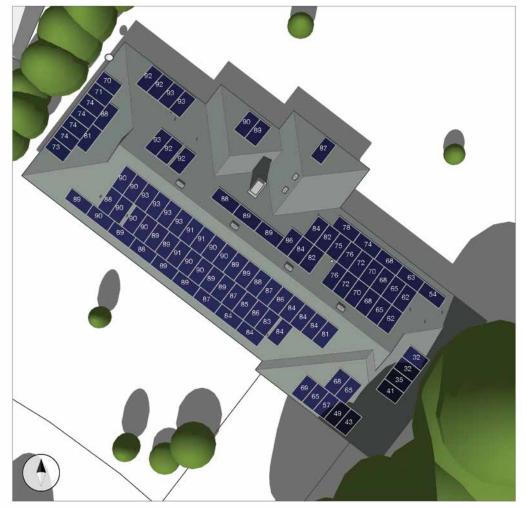
Know up front what you can expect each panel to produce throughout a year, compared to its lab-tested ratings. This information is based on tilt, orientation and shading info.





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.

ARRAY	0	2	8	4	6	6	7	ALL	kWh
January	79				74	65	76	67%	901
February	83	_			74	77	73	71%	1.305
March	90		28		74	77	74	77%	2,535
April	88		38		83	89	77	79%	3,281
Mav	91			-	94	94	76	84%	4,061
June	92		-		95	96	75	87%	4,694
July	92				95 95	96	75 75	86%	4,709
August	90		40		93 92	96	75 75	82%	4,709
September	91		28		92 75	87	77	79%	3,087
October	89				79	80	77	74%	2,093
November	80	-			79 72	71	75	66%	1,107
December	70				74	58	76	60%	852
		-							
Summer	91				90	93	76	83%	22,802
Winter	83		26		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%	
ARRAY	1,493	1,493	1,470	1,166	1,166	1,166	7	ALL 1,348	kWh/kW/yr
Shading derate	88	59	35	78	87	89	76	79%	
Shading derate		59 880	35 512	78 909	87 1,009	89 1,036	76 904		kWh/kW/yr
Shading derate Yield (shaded)	88		512 128°				904 308°		kWh/kW/yr
Shading derate Yield (shaded) Azimuth Tilt	88 1,319 218° 18°	880 218° 18°	512	909 38° 18°	1,009 38° 18°	1,036 38° 18°	904 308° 18°	1,075	kWh/kW/yr
Shading derate Yield (shaded) Azimuth Tilt Module count	88 1,319 218° 18° 44	880 218° 18° 7	512 128° 18° 4	909 38° 18° 33	1,009 38° 18° 1	1,036 38° 18° 2	904 308° 18° 9	1,075	,
Shading derate Yield (shaded) Azimuth Tilt Module count System size	88 1,319 218° 18° 44 13.42	880 218° 18° 7 2.135	512 128° 18° 4 1.22	909 38° 18° 33 10.065	1,009 38° 18° 1 0.305	1,036 38° 18° 2 0.61	904 308° 18° 9 2.745	1,075 100 30.5	kW STC
Shading derate Yield (shaded) Azimuth Tilt Module count System size	88 1,319 218° 18° 44	880 218° 18° 7 2.135	512 128° 18° 4	909 38° 18° 33	1,009 38° 18° 1	1,036 38° 18° 2	904 308° 18° 9	1,075 100 30.5	,
Shading derate Yield (shaded) Azimuth Tilt Module count System size Annual energy	88 1,319 218° 18° 44 13.42 17,706	880 218° 18° 7 2.135	512 128° 18° 4 1.22 624	909 38° 18° 33 10.065 9,153	1,009 38° 18° 1 0.305 308	1,036 38° 18° 2 0.61 632	904 308° 18° 9 2.745 2,483	1,075 100 30.5 32,784	kW STC
Shading derate Yield (shaded) Azimuth Tilt Module count System size Annual energy	88 1,319 218° 18° 44 13.42 17,706	880 218° 18° 7 2.135	512 128° 18° 4 1.22 624	909 38° 18° 33 10.065 9,153	1,009 38° 18° 1 0.305 308	1,036 38° 18° 2 0.61 632	904 308° 18° 9 2.745 2,483	1,075 100 30.5 32,784	kW STC
Shading derate Yield (shaded) Azimuth Tilt Module count System size Annual energy PVWatts derate Soiling	88 1,319 218° 18° 44 13.42 17,706	880 218° 18° 7 2.135	512 128° 18° 4 1.22 624 Default 0.98	909 38° 18° 33 10.065 9,153 Actu	1,009 38° 18° 1 0.305 308	1,036 38° 18° 2 0.61 632	904 308° 18° 9 2.745 2,483 2VWatts E	1,075 100 30.5 32,784 Data Set	kW STC
Shading derate Yield (shaded) Azimuth Tilt Module count System size Annual energy PVWatts derate Soiling Shading	88 1,319 218° 18° 44 13.42 17,706	880 218° 18° 7 2.135	512 128° 18° 4 1.22 624 Default 0.98 0.97	909 38° 18° 33 10.065 9,153 Actu 0.9 0.7	1,009 38° 18° 1 0.305 308	1,036 38° 18° 2 0.61 632	904 308° 18° 9 2.745 2,483 PVWatts Data: TMY3 ocation ID	1,075 100 30.5 32,784 Data Set 3	kW STC
Shading derate Yield (shaded) Azimuth Tilt Module count System size Annual energy PVWatts derate Soliting Shading Snow	88 1,319 218° 18° 44 13.42 17,706	880 218° 18° 7 2.135	512 128° 18° 4 1.22 624 Default 0.98 0.97 1.00	909 38° 18° 33 10.065 9,153 Actu 0.9 0.7 1.0	1,009 38° 18° 1 0.305 308	1,036 38° 18° 2 0.61 632	904 308° 18° 9 2.745 2,483 PVWatts Data: TMY3 ocation ID atitude: 46	1,075 100 30.5 32,784 Set Set 3 1: 725920 0.516998°	kW STC
Shading derate Yield (shaded) Azimuth Tilt Module count System size Annual energy PVWatts derate Soiling Shading Snow Mismatch	88 1,319 218° 18° 44 13.42 17,706	880 218° 18° 7 2.135	512 128° 18° 4 1.22 624 Default 0.98 0.97 1.00 0.98	909 38° 18° 33 10.065 9,153 Actu 0.9 0.7 1.0 1.0	1,009 38° 18° 1 0.305 308 Jal 8 9	1,036 38° 18° 2 0.61 632	904 308° 18° 9 2.745 2,483 PVWatts E Data: TMY: ocation ID atitude: 40 ongitude:	1,075 100 30.5 32,784 Pata Set 3 : 725920 0.516998° -122.317001°	kW STC
Shading derate Yield (shaded) Azimuth Tilt Module count System size Annual energy PVWatts derate Soiling Shading Snow Mismatch Wiring	88 1,319 218° 18° 44 13.42 17,706	880 218° 18° 7 2.135	512 128° 18° 4 1.22 624 Default 0.98 0.97 1.00 0.98 0.98	909 38° 18° 33 10.065 9,153 Actu 0.9 0.7 1.0 0.9	1,009 38° 18° 1 0.305 308 ual 8 9 0	1,036 38° 18° 2 0.61 632	904 308° 18° 9 2.745 2,483 PVWatts Data: TMY3 ocation ID atitude: 46	1,075 100 30.5 32,784 Pata Set 3 : 725920 0.516998° -122.317001°	kW STC
Shading derate Yield (shaded) Azimuth Tilt Module count System size Annual energy PVWatts derate Soiling Shading Snow Mismatch Wiring Connections	88 1,319 218° 18° 44 13.42 17,706	880 218° 18° 7 2.135 1,878	512 128° 18° 4 1.22 624 Default 0.98 0.99 1.00 0.98 0.99 0.99 0.99 0.99 0.995	909 38° 18° 33 10.065 9,153 Actu 0.9 0.7 1.0 0.9 0.9	1,009 38° 18° 1 0.305 308 val 8 9 9 0 0 8	1,036 38° 18° 2 0.61 632	904 308° 18° 9 2.745 2,483 PVWatts E Data: TMY: ocation ID atitude: 40 ongitude:	1,075 100 30.5 32,784 Pata Set 3 : 725920 0.516998° -122.317001°	kW STC
Shading derate Yield (shaded) Azimuth Tilt Module count System size Annual energy PVWatts derate Soiling Shading Snow Mismatch Wiring Connections Light-induced delay (shaded)	88 1,319 218° 18° 44 13.42 17,706 e factors	880 218° 18° 7 2.135 1,878	512 128° 18° 4 1.22 624 Default 0.98 0.97 1.00 0.98 0.995 0.985	909 38° 18° 33 10.065 9,153 Actu 0.9 0.7 1.0 0.9 0.95 0.96	1,009 38° 18° 1 0.305 308 val 8 9 0 0 8 95 35	1,036 38° 18° 2 0.61 632	904 308° 18° 9 2.745 2,483 PVWatts E Data: TMY: ocation ID atitude: 40 ongitude:	1,075 100 30.5 32,784 Pata Set 3 : 725920 0.516998° -122.317001°	kW STC
Shading derate Yield (shaded) Azimuth Tilt Module count System size Annual energy PVWatts derate Soiling Shading Snow Mismatch Wiring Connections Light-induced do Nameplate ratin.	88 1,319 218° 18° 44 13.42 17,706 e factors	880 218° 18° 7 2.135 1,878	512 128° 18° 4 1.22 624 Default 0.98 0.97 1.00 0.98 0.98 0.995 0.985 0.995	909 38° 18° 33 10.065 9,153 Actu 0.9 0.7 1.0 0.9 0.98 0.98 0.99	1,009 38° 18° 1 0.305 308 val 8 9 0 0 8 8 9 9 0 0 8 8 9 9	1,036 38° 18° 2 0.61 632	904 308° 18° 9 2.745 2,483 PVWatts E Data: TMY: ocation ID atitude: 40 ongitude:	1,075 100 30.5 32,784 Pata Set 3 : 725920 0.516998° -122.317001°	kW STC
Shading derate Yield (shaded) Azimuth Tilt Module count System size Annual energy PVWatts derate Soiling Shading Shading Snow Mismatch Wiring Connections Light-induced di Nameplate ratin Availability	88 1,319 218° 18° 44 13.42 17,706 e factors	880 218° 18° 7 2.135 1,878	512 128° 18° 4 1.22 624 Default 0.98 0.97 1.00 0.98 0.995 0.985	909 38° 18° 33 10.065 9,153 Actu 0.9 0.7 1.0 0.9 0.95 0.96	1,009 38° 18° 1 0.305 308 ual 8 9 0 0 8 95 95 97	1,036 38° 18° 2 0.61 632	904 308° 18° 9 2.745 2,483 PVWatts E Data: TMY: ocation ID atitude: 40 ongitude:	1,075 100 30.5 32,784 Pata Set 3 : 725920 0.516998° -122.317001°	kW STC
Yield (unshaded, Shading derate Yield (shaded) Azimuth Tilt Module count System size Annual energy PVWatts derate Soiling Shading Snow Mismatch Wiring Connections Light-induced do Nameplate rating Availability Overall system Overall system	88 1,319 218° 18° 44 13.42 17,706 e factors	880 218° 18° 7 2.135 1,878	512 128° 18° 4 1.22 624 Default 0.98 0.99 1.00 0.98 0.998 0.998 0.995 0.999 0.97	909 38° 18° 33 10.065 9,153 Actu 0.9 0.7 1.0 0.9 0.99 0.99 0.99 0.99 0.90 0.90	1,009 38° 18° 1 0.305 308 val 8 9 0 0 8 8 95 77 14	1,036 38° 18° 2 0.61 632	904 308° 18° 9 2.745 2,483 PVWatts E Data: TMY: ocation ID atitude: 40 ongitude:	1,075 100 30.5 32,784 Pata Set 3 : 725920 0.516998° -122.317001°	kW STC

