

OPERATIONAL SOLAR THERMAL POWER STATIONS

<u>Capacity (MW)</u>	<u>Name</u>	<u>Country</u>	<u>Location</u>	<u>Technology type</u>
354	Solar Energy Generating Systems	 USA	Mojave Desert California	parabolic trough
150	Solnova	 Spain	Seville	parabolic trough
100	Andasol solar power station	 Spain	Granada	parabolic trough
100	Extresol Solar Power Station	 Spain	Torre de Miguel Sesmero (Badajoz)	parabolic trough
75	Martin Next Generation Solar Energy Center	 USA	Florida	ISCC
64	Nevada Solar One	 USA	Boulder City, Nevada	parabolic trough
50	Ibersol Ciudad Real	 Spain	Puertollano, Ciudad Real	parabolic trough
50	Alvarado I	 Spain	Badajoz	parabolic trough
50	La Florida	 Spain	Alvarado (Badajoz)	parabolic trough
50	Majadas de Tiétar	 Spain	Caceres	parabolic trough
50	La Dehesa	 Spain	La Garrovilla (Badajoz)	parabolic trough
50	Palma del Rio 2	 Spain	Cordoba	parabolic trough
50	Manchasol-1	 Spain	Ciudad Real	parabolic trough
20	PS20 solar power tower	 Spain	Seville	solar power tower
20	Beni Mathar Plant	 Morocco	Ain Bni Mathar	ISCC
17	Yazd integrated solar combined cycle power station	 Iran	Yazd	parabolic trough
17	Gemasolar, former Solar Tres Power Tower	 Spain	Fuentes de Andalucia (Seville)	solar power tower
11	PS10 solar power tower	 Spain	Seville	solar power tower
5	Kimberlina Solar Thermal Energy Plant	 USA	Bakersfield, California	fresnel reflector
5	Sierra SunTower	 USA	Lancaster	solar power tower
5	Archimede solar power plant	 Italy	near Siracusa, Sicily	parabolic trough
2	Liddell Power Station Solar Steam Generator	 Australia	New South Wales	fresnel reflector
1.5	Maricopa Solar	 USA	Peoria, Arizona	dish stirling
1.5	Jülich Solar Tower	 Germany	Jülich	solar power tower
1.4	Puerto Errado 1	 Spain	Murcia	fresnel reflector
1	Saguaro Solar Power Station	 USA	Red Rock	parabolic trough
2	Keahole Solar Power	 USA	Hawaii	parabolic trough
0.25	Shiraz solar power plant	 Iran	Shiraz	Parabolic trough
1282.65	Overall operational capacity			

Under construction

Solar Thermal Power Stations under construction					
Capacity (MW)	Name	Country	Location	Expected completion	Technology
370	Ivanpah Solar Power Facility	 USA	San Bernardino County, California	2013	solar power tower
280	Solana Generating Station	 USA	West of Gila Bend, AZ	2013	parabolic trough
100	Andasol 3–4	 Spain	Granada	2011 ^[42]	parabolic trough
100	Helioenergy 1, 2	 Spain	Ecija	??	parabolic trough
100	Solaben 1, 2	 Spain	Logrosan	??	parabolic trough
100	Valle Solar Power Station	 Spain	Cadiz	2020	parabolic trough
100	Termosol 1+2	 Spain	Navalvillar de Pela (Badajoz)		parabolic trough
100	Helios 1+2	 Spain	Ciudad Real		parabolic trough
50	Palma del Rio 1	 Spain	Cordoba	2011	parabolic trough
50	Extresol 3	 Spain	Torre de Miguel Sesmero (Badajoz)		parabolic trough
50	Lebrija-1	 Spain	Lebrija	2011	parabolic trough
50	Axtesol 2	 Spain	Badajoz		parabolic trough
50	Arenales PS	 Spain	Moron de la Frontera (Seville)		parabolic trough
50	Serrezuella Solar 2	 Spain	Talarrubias (Badajoz)		parabolic trough
50	El Reboso 2	 Spain	El Puebla del Rio (Seville)	2011	parabolic trough
50	El Reboso 3	 Spain	El Puebla del Rio (Seville)	2012	parabolic trough
50	Moron	 Spain	Moron de la Frontera (Sevilla)		parabolic trough
50	Olivenza 1	 Spain	Olivenza (Badajoz)		parabolic trough
50	Medellin	 Spain	Medellin (Badajoz)		parabolic trough
50	Valdetorres	 Spain	Valdetorres (Badajoz)		parabolic trough
50	Badajoz 2	 Spain	Talavera la Real (Badajoz)		parabolic trough
50	Santa Amalia	 Spain	Santa Amalia (Badajoz)		parabolic

		 Spain			trough
50	Torrefresneda	 Spain	Torrefresneda (Badajoz)		parabolic trough
50	La Puebla 2	 Spain	La Puebla del Rio (Sevilla)		parabolic trough
50	Carporate ispat alloy ^[citation needed]	 India	Phalodi(Rajasthan)	2013	parabolic trough
30	Puerto Errado 2	 Spain	Murcia		fresnel reflector
27.5	Jinshawan	 China	China		solar updraft tower
25	Termosolar Borges	 Spain	Borges Blanques (Lerida)		parabolic trough
20	Kuraymat Plant	 Egypt	Kuraymat	2012	ISCC
25	Hassi R'mel integrated solar combined cycle power station	 Algeria	Hassi R'mel	2011	ISCC
1.4	THEMIS Solar Power Tower	 France	Pyrénées-Orientales		solar power tower
1	Renovalia	 Spain	Albacete		dish
2274.9	Overall capacity under construction				

Announced — USA

Solar Thermal Power Stations Announced in the USA

Capacity MW	Name	Country	Location	Technology
968	Blythe Solar Power Project	 USA	Riverside County	solar trough
553	Mojave Solar Park	 USA	San Bernardino County, California	parabolic trough
500	Fort Irwin	 USA	San Bernardino County, California	unnamed solar thermal technology, military
500	Amargosa Solar Power Project	 USA	Nye County, Nevada	parabolic trough
484	Palen Solar Power Project	 USA	Riverside County, California	solar trough
350	Sonoran Solar Project	 USA	Maricopa County, Arizona	parabolic trough
340	Hualapai Valley Solar Project	 USA	Mohave County, Arizona	parabolic trough
300	Unnamed	 USA	Florida	fresnel reflector
290	Agua Caliente Solar Project	 USA	Yuma County, Arizona	parabolic trough
250	Beacon Solar Energy Project	 USA	Kern County, California	parabolic trough
250	Harper Lake Solar	 USA	San Bernardino County< California	solar trough
250	Genesis Solar Energy Project	 USA	Riverside County, California	solar trough

200	Unnamed Kingman solar project	 USA	Mohave County, Arizona	parabolic trough
200	Enviromission Australia	 USA	Arizona	solar updraft tower
200	BrightSource PPA5	 USA	Mojave, California	power tower
200	BrightSource PPA6	 USA	Mojave, California	power tower
200	BrightSource PPA7	 USA	Mojave, California	power tower
150	Rice Solar Energy Project	 USA	Riverside County, California	power tower
150	Crossroads Solar Energy Project	 USA	Maricopa County, Arizona	power tower
107	San Joaquin Solar 1&2	 USA	Fresno County, California	parabolic trough hybrid with biomass
100	Crescent Dunes Solar Energy Project	 USA	Nye County, Nevada	power tower
100	Calico Solar Energy Project (SES Solar One)	 USA	San Bernardino County, California	
92	Suntower	 USA	Doña Ana County, New Mexico	solar tower
84	eSolar 1	 USA	Los Angeles County, California	solar tower
66	eSolar 2	 USA	Los Angeles County, California	solar tower
62	City of Palmdale Hybrid Power Project	 USA	Palmdale, California	parabolic trough steam input for hybrid gas plant
59	Unnamed	 USA	Barstow, California	parabolic trough with heat storage
50	Victorville 2 Hybrid Power Project	 USA	Victorville, California	parabolic trough steam input for hybrid gas plant
50	Sound Hybrid G	 USA	Unannounced	hybrid
5	Kalaeloa Solar One MicroCSP Power Project	 USA	Barbers Point Naval Air Station, Hawaii	MicroCSP parabolic trough steam input for power generation with thermal storage
7110	Overall capacity announced in the USA			

Announced — Spain

Solar Thermal Power Stations Announced in Spain

MW	Name	Location	Technology
200	Andasol 4–7	Granada	parabolic trough with heat storage
50	Manchasol 2	Ciudad Real	parabolic trough with heat storage
100	Solnova 2, 4–5	Sevilla	parabolic trough with heat storage
50	Ibersol Badajoz	Fuente de Cantos	parabolic trough
50	Ibersol Valdecaballeros 1–2	Valdecaballeros	parabolic trough
50	Ibersol Sevilla	Aznalcollar	parabolic trough
50	Ibersol Almería	Tabernas	parabolic trough
50	Ibersol Albacete	Almansa	parabolic trough

50	Ibersol Murcia	Lorca	parabolic trough
50	Ibersol Zamora	Cubillos	parabolic trough
50	Enerstar Villena Power Plant	Villena	parabolic trough
100	Aste 3, 4	Alcázar de San Juan (Ciudad Real)	parabolic trough
50	Astexol 1	Extremadura	parabolic trough
50	AZ 20	Sevilla	power tower
50	Alcázar Solar Thermal Power Project	Alcázar de San Juan	power tower
20	Almaden Plant	Albacete	power tower
10	Gotasol	Gotarrendura	linear fresnel
0.08	Aznalcollar TH	Sevilla	dish sterling
1080.08	Overall capacity announced in Spain		

Announced — other countries

Solar Thermal Power Stations Announced In Other Countries

MW	Name	Location	Technology
2000	Sudan Solar Program	Sudan	unknown
2000	unknown	Mongolian desert, China	power tower
2000	unknown	Morocco	unknown
250	Ashalim power station	Negev desert, Israel	CSP
250	unknown	Australia	unknown
100	Shams	Abu Dhabi Madinat Zayad, UAE	parabolic trough
100	unknown	Upington, South Africa	power tower
12	Alba Nova 1	Corsica Island, France	unknown
10	Cloncurry solar power station	Cloncurry, Australia	power tower with heat storage
10	unknown	Nagpur, India	unknown
10	LEI , Bhopal	Bhopal, India	Central Tower
6742			

Source: www.wikipedia.com