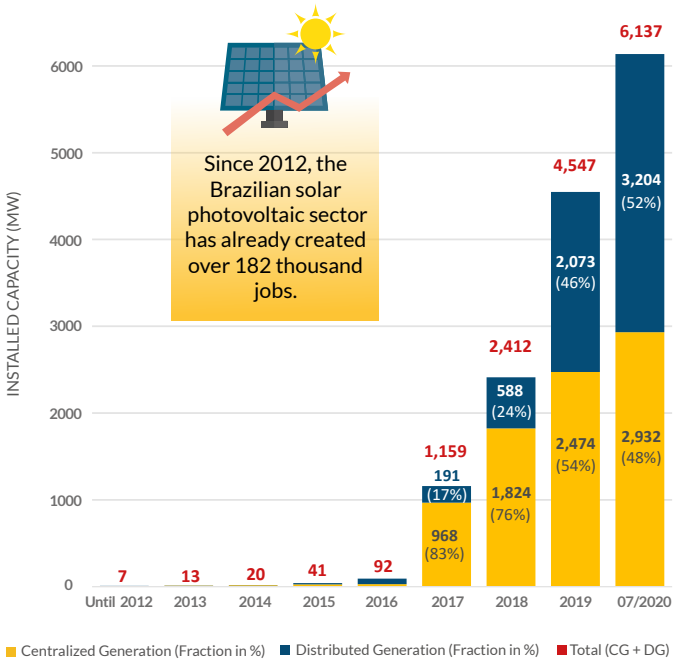
ABSOLAR
Brazilian Solar Photovoltaic Energy Association

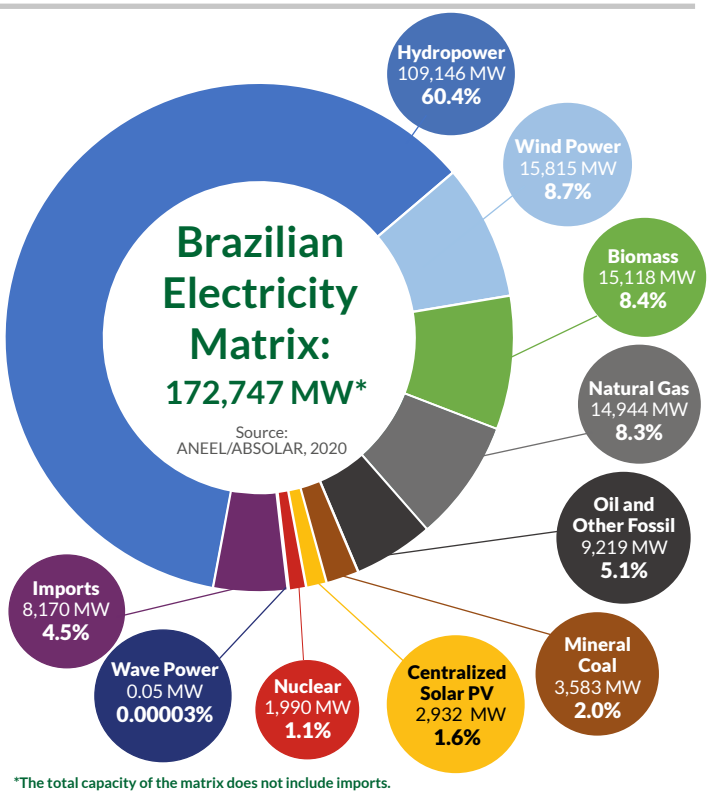
Solar Photovoltaic Energy in Brazil
ABSOLAR's Infographic

Updated on August 3rd, 2020 | n. 22

Evolution of the Solar Photovoltaic Energy in Brazil

Source: ANEEL/ABSOLAR, 2020.





*The total capacity of the matrix does not include imports.

Distributed Generation

State Ranking

Source: ANEEL/ABSOLAR, 2020.

		Installed Capacity (MW)	(%)
Minas Gerais	1st	640,8	20,0%
Rio Grande do Sul	2nd	424,9	13,3%
São Paulo	3rd	409,0	12,8%
Paraná	4th	273,2	8,5%
Goiás	5th	175,1	5,5%
Mato Grosso	6th	163,0	5,1%
Santa Catarina	7th	145,5	4,5%
Rio de Janeiro	8th	132,6	4,1%
Ceará	9th	114,3	3,6%
Bahia	10th	111,8	3,5%
Mato Grosso do Sul	11th	98,3	3,1%
Pernambuco	12th	69,1	2,2%
Rio Grande do Norte	13th	64,0	2,0%
Espírito Santo	14th	62,5	2,0%
Piauí	15th	61,5	1,9%
Paraíba	16th	56,7	1,8%
Pará	17th	39,3	1,2%
Maranhão	18th	33,8	1,1%
Distrito Federal	19th	29,9	0,9%
Tocantins	20th	25,5	0,8%
Alagoas	21st	23,7	0,7%
Sergipe	22nd	17,4	0,5%
Amazonas	23rd	14,6	0,5%
Rondônia	24th	6,6	0,2%
Amapá	25th	4,6	0,1%
Acre	26th	4,0	0,1%
Roraima	27th	2,4	0,1%

Municipality Ranking

Source: ANEEL/ABSOLAR, 2020.

		Installed Capacity (MW)	(%)
Uberlândia – MG	1st	40.6	1.3%
Rio de Janeiro - RJ	2nd	35.6	1.1%
Fortaleza – CE	3rd	32.6	1.0%
Brasília – DF	4th	29.9	0.9%
Teresina – PI	5th	29.4	0.9%
Goiânia – GO	6th	27.3	0.9%
Cuiabá - MT	7th	26.6	0.8%
Belo Horizonte – MG	8th	23.2	0.7%
Campo Grande – MS	9th	20.4	0.6%
Caxias do Sul – RS	10th	16.0	0.5%

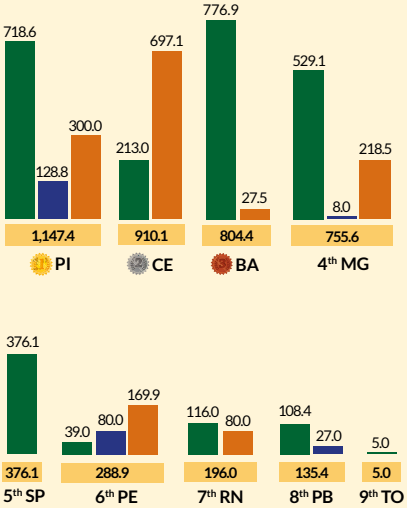
What is the Solar PV Installed Capacity in Brazil?

Centralized Generation 2,932.4 MW + **Distributed Generation 3,204.1 MW** = **Total Operational Capacity 6,136.5 MW**

Centralized Generation

Source: ANEEL/ABSOLAR, 2020.

Installed capacity (MW) and status of the PV Power plants in the energy auctions of the regulated market per State:

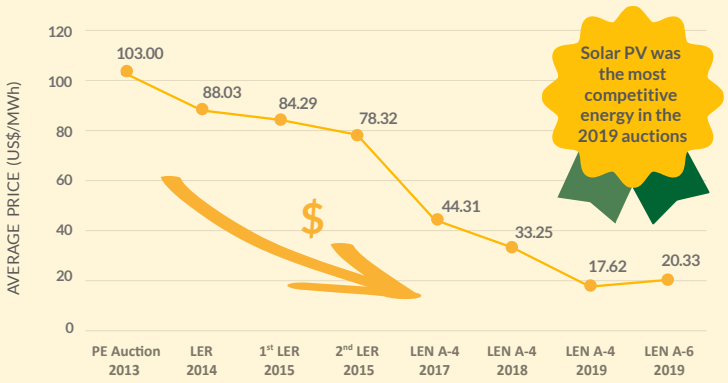


4.6 GW
Contracted capacity in energy auctions which will come into operation by 2025.

R$ 25.8 billion
Projected volume of investments by 2025 related to projects already contracted in auctions.

Price Development
of Solar PV Energy in the Energy Auctions of the Regulated Electricity Market

Source: CCEE/ABSOLAR, 2019.



Electricity Generation Records

Source: ONS/MME, 2020.

Solar PV achieved new records of electricity generation on the SIN (National Grid System) in Brazil:

DAILY AVERAGE
Apr. 03rd, 2020
753.1 MW
average
with a capacity factor of
27.6%

DAILY MAXIMUM
Apr. 03rd, 2020
2,073.1 MW
at 10 a.m.
with instantaneous capacity factor of
76.0%

1.1%
of the electricity supplied in Brazil was generated from solar PV energy in May 2020.

Distributed Generation

Source: ANEEL/ABSOLAR, 2020.

Distributed microgeneration (up to 75 kW) and minigeneration (above 75 kW up to 5 MW) solar PV systems installed at homes, commercial buildings, industries, rural properties and public buildings.

94.7%
is the share of solar PV installed capacity in micro and minigeneration, leading by far the distributed generation market.

99.8%
of all micro and minigeneration connections are from solar PV systems.

R$ 16.15 billion
in cumulative investments since 2012, distributed in all regions and states of the country.

267,792
Solar PV systems connected to the grid.

335,121
consumer units (0.4% from the total)
receiving electricity credits through net-metering.

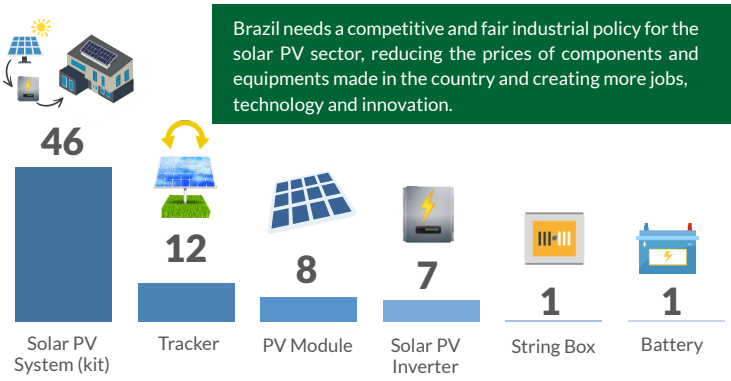
3,204.1 MW
is the installed capacity of solar PV energy in distributed generation.

Value Chain

Source: BNDES, 2020.

Number of national manufacturers from the solar PV sector registered at the BNDES FINAME financing program:

Brazil needs a competitive and fair industrial policy for the solar PV sector, reducing the prices of components and equipments made in the country and creating more jobs, technology and innovation.



Data updated in accordance with the new BNDES re-accreditation procedure with the FINAME.

Main Benefits of Solar PV to Brazil

Socioeconomical

- ☑ Reduction of expenses with electricity for the population, businesses and governments, lowering costs to society.
- ☑ Leader in local quality jobs, creating 25 to 30 jobs per MW/year.
- ☑ Attraction of foreign capital and new private investments for the country.

Environmental

- ☑ Generation of clean, renewable and sustainable electricity, free of greenhouse gas emissionss, without waste or noise.
- ☑ No water usage during operation, reducing the pressure on water resources.
- ☑ Low environmental impact.

Strategical

- ☑ Diversification of the Brazilian electricity matrix with a renewable energy, increasing reliability of the electricity supply.
- ☑ Reduction of losses and postponement of investments in transmission and distribution grids.
- ☑ Relief of electrical demand during daytime, reducing costs to consumers.

/ABSOLAR_Brasil
/ABSOLARBrasil
/Canal ABSOLAR
/ABSOLAR
/AbsolarOficial

+55 11 3197-4560
absolar@absolar.org.br
absolar.org.br
Avenida Paulista 1636, 10° andar, conj. 1001, ZIP 01310-200
Bela Vista, Sao Paulo, SP, Brazil