Solar Heating Systems Production and Sales Survey 2025

Database 2024

abrasol
associação brasileira de energia solar térmica

Editorial

We are pleased to present the 2025 Production and Sales Survey, a publication of great relevance to the solar thermal energy sector. Released annually, this report serves as a key reference for tracking the development of the industry, both in Brazil and in the international arena.

We are proud to highlight that the sector recorded a growth rate of 10.8% in 2024-an impressive improvement compared to the modest 2.8% growth observed in 2023. This positive result is primarily due to the strong efforts of the production chain and the recovery of the construction sector. For 2025, expectations are even more optimistic, with a projected growth rate of 15%.

The survey reveals that over the past 25 years, a total of 26.7 million square meters of solar collectors have been installed in the country. In 2024 alone, 258,767 thermal storage units were installed - an increase of 14% compared to the previous year. In terms of regional sales distribution, the Southeast region maintained its leading position with 70% of the market, followed by the South (12%), Central-West (8%), Northeast (7%), and North (3%).

Regarding market segments, the residential sector remains the most significant, accounting for 76% of total sales. However, it is worth noting the steady growth of the commercial and service segments, which together represent 19%, followed by the industrial sector (3%) and social projects (2%).

A major milestone for the industry was the enactment of Ceuso Resolution No. 156/2024, dated December 18, which harmonizes the definitions within the Solar SP Law. This regulatory development is expected to positively impact the sector's performance throughout the year. We continue to advocate for the inclusion of solar water heaters in the Minha Casa, Minha Vida housing program, the approval of PRONASOL, and the advancement of other legislative initiatives currently under discussion at various levels of government.

The need to fully integrate solar heating systems into public policies focused on energy, the environment, and sustainability has never been more evident.

Abrasol remains firmly committed to strengthening the Solar Thermal Energy sector and expanding its visibility both in Brazil and abroad.

We conclude this editorial by thanking our members for their continued engagement in the association's initiatives. We are confident that this will be a year of progress, achievements, and positive outcomes for the industry.

Mauro Isaac Aisemberg
President

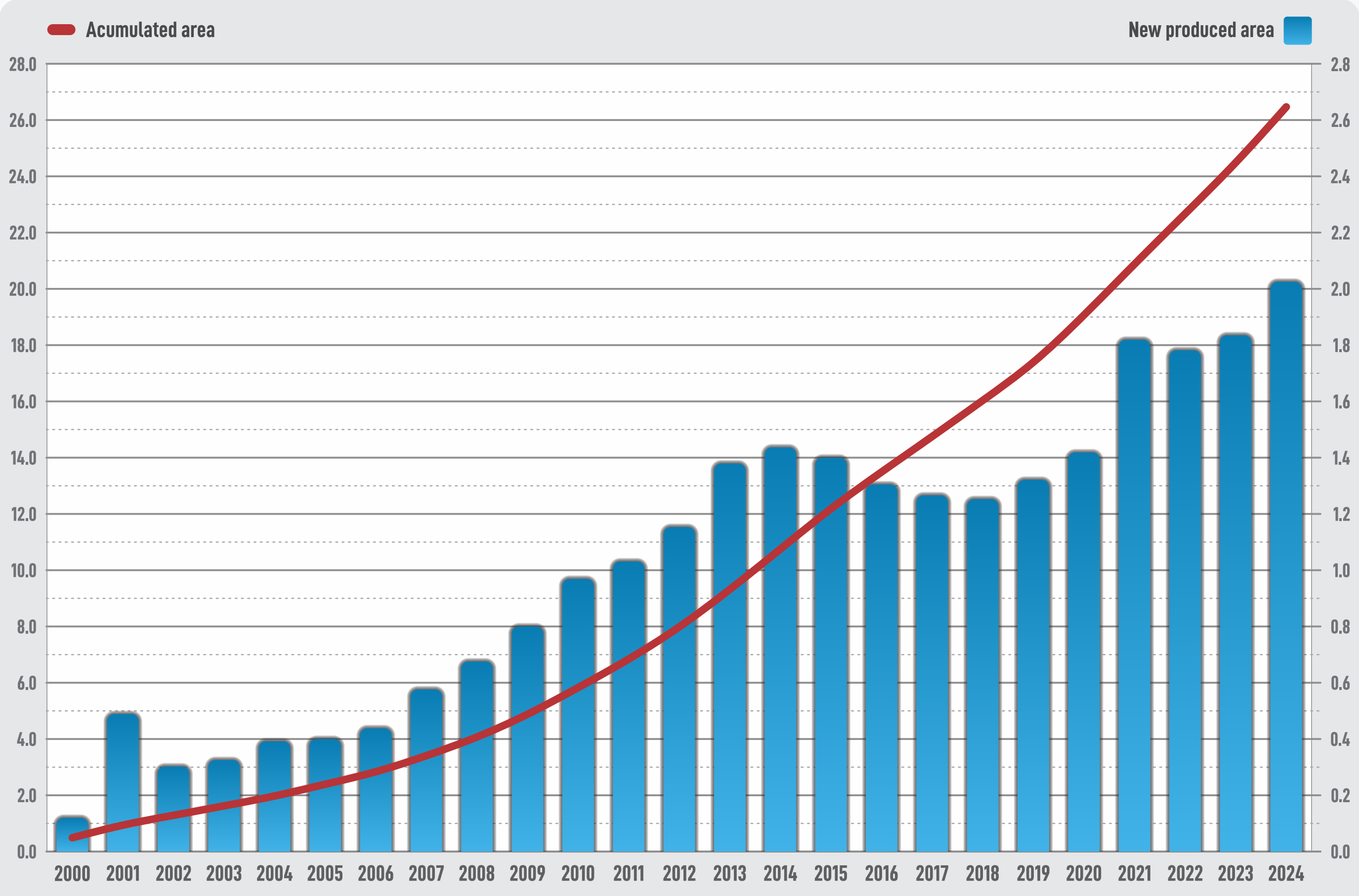
Objective

The objective of this report is to present the results of the solar water heater production survey over the years, including market behavior, sales distribution across segments and regions in Brazil, as well as industry expectations for the year 2025.

Methodology

The methodology employed was a survey conducted among ABRASOL members. Based on the information collected, data extrapolation was performed to represent the entire Solar Thermal Energy market in Brazil.

Market Evolution of Solar Water Heating in Brazil



Values in millions of m^2

Note: The accumulated area considers the past 25 years, as per the criteria adopted by the IEA – International Energy Agency

According to the survey, the total production volume of solar thermal collectors in 2024 reached 2 million square meters, representing a 10.8% increase in newly installed collectors compared to 2023. Over the past 25 years, the total installed area has reached 26.7 million square meters. Below is a breakdown of these figures for the last 10 years (2015 to 2024).

Solar Thermal Collectors

The table below shows the number of closed-loop, open-loop, and vacuum tube collectors and their respective year-over-year variations:

Year	Glazed (m²)	Variation (%)	Unglazed (m²)	Variation (%)	Vacuum Tube (m²)	Variation (%)	Total	%	Cumulative (m²)	Variation (%)
2015	610.066	-5,3%	767.311	-1,8%	25.055	57,9%	1.402.432	-2,7%	12.641.164	12,5%
2016	548.205	-10,1%	734.240	-4,3%	22.477	-10,3%	1.304.922	-7,0%	13.946.086	10,3%
2017	632.425	15,4%	602.803	-17,9%	28.546	27,0%	1.263.774	-3,2%	15.209.860	9,1%
2018	627.321	-0,8%	594.482	-1,4%	28.397	-0,5%	1.250.200	-1,1%	16.460.060	8,2%
2019	662.451	5,6%	627.773	5,6%	30.761	8,3%	1.320.985	5,7%	17.781.045	8,0%
2020	710.810	7,3%	673.600	7,3%	32.360	5,2%	1.416.771	7,3%	19.197.816	8,0%
2021	948.931	33,5%	831.223	23,4%	38.509	19,0%	1.818.663	28,4%	21.016.479	9,5%
2022	920.463	-3,0%	821.248	-1,2%	38.124	-1,0%	1.779.835	-2,1%	22.796.314	8,5%
2023	925.065	0,5%	862.311	5,0%	43.080	13,0%	1.830.456	2,8%	24.626.770	8,0%
2024	1.054.574	14,0%	922.673	7,0%	50.834	18,0%	2.028.081	10,8%	26.654.851	8,2%

Storage tanks

The following table presents the number of storage tanks sold over the past 10 years and their annual variations. In 2024, a total of 258,767 storage tanks were sold: 60% (155,260 units) were low-pressure tanks and 40% (103,567 units) were high-pressure tanks, reflecting a growing trend in the share of high-pressure tanks installed in recent years.

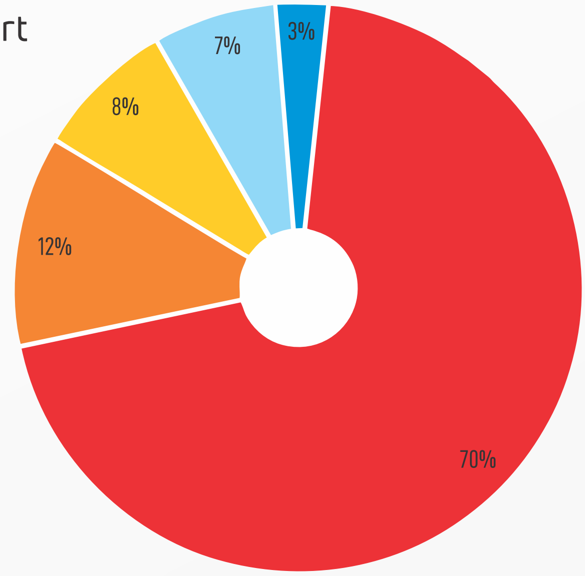
Year	Units	Variation (%)
2015	251.287	-6,7%
2016	220.553	-12,2%
2017	172.938	-21,6%
2018	168.832	-2,4%
2019	169.211	0,2%
2020	170.532	0,8%
2021	201.398	18,1%
2022	200.875	-0,3%
2023	226.989	13,0%
2024	258.767	14,0%

Market Behavior

The survey also analyzed market behavior regarding regional sales and market segments in 2024, using these insights to support projections for 2025.

Percentage Distribution of Sales by Region in Brazil - 2024

The regional sales distribution is shown in the chart below. The Southeast region maintained the largest share with 70% of total sales, followed by the South with 12%, which represents a significant decline from its 20% share in 2023. The Central-West region remained stable at 8%, while the Northeast and North accounted for 7% and 3%, respectively.

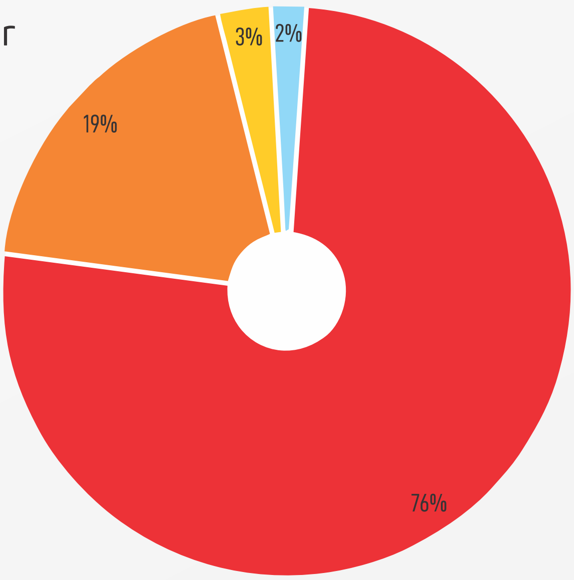


BRAZILIAN REGIONS

SOUTHEAST SOUTH CENTRAL-WEST NORTHEAST NORTH

Percentage Distribution of Sales by Market Segment - 2024

Regarding market segments, the residential sector remained the most significant, accounting for 76% of total sales. The commercial and service segments followed with 19%, while the industrial sector represented 3%, and social projects accounted for 2%.



MARKET SEGMENTS

RESIDENTIAL COMMERCIAL & SERVICES SOCIAL PROJECTS INDUSTRIAL

Market Recovery and Expectations for 2025

In 2024, there was an 11% increase in the production of solar water heaters, signaling a recovery for the sector after a modest growth of just 2.8% in 2023. This result can be attributed mainly to the efforts of entrepreneurs in the sector, who sought new markets and implemented innovative production and sales strategies.

Nevertheless, factors such as economic uncertainty in Brazil and globally, along with limited access to credit lines, continue to cause concern for the supply chain and impacted results in 2024.

Looking ahead to 2025, a 15% growth is projected, driven by the following key factors:

- Implementation of the Law Solar SP, through Ceuso Resolution No. 156/2024;
- Expansion of civil construction projects;
- Increased visibility of the sector, fostering new partnerships and projects with national and international institutions.

Associated companies