



Task 1 Strategic PV Analysis and Outreach

S
P
V
P
S

FACT SHEET

National Survey Report of PV Power Applications in France

NOVEMBER 2024

Author:
Mélodie de l'Épine, Becquerel Institute



2023 National Survey Report of PV Power Applications in France

Key Highlights

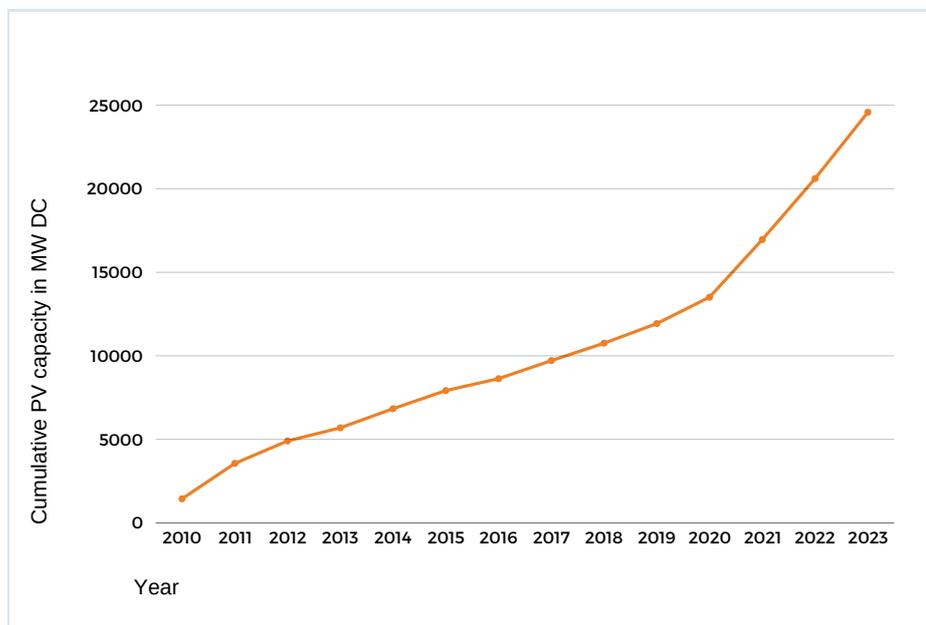
- **Total Installed Capacity:** In 2023, France installed 4.0 GW of new PV capacity, bringing the cumulative total to 24.6 GW. This includes 2.5 GW of decentralized PV and 1.45 GW of centralized PV.
- **Market Growth:** Driven by residential and commercial self-consumption, PV capacity saw significant growth, with residential systems accounting for 24% of new installed capacity and commercial systems contributing 25%.
- **Self-Consumption:** Total or partial self-consumption accounted for nearly 40% of new capacity, up from 20% in 2022.

Breakdown of Installations

Type of System	Capacity Added in MW DC (2023)	Cumulative Capacity in MW DC
Decentralized (Residential, Commercial, Industrial)	2 520	12 188
Centralized (Utility-scale)	1 446	12 387
Total	3 966	24 576



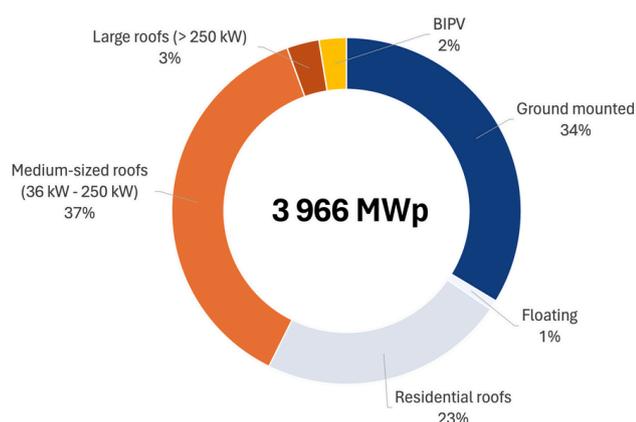
Cumulative PV Capacity in France (2010-2023)



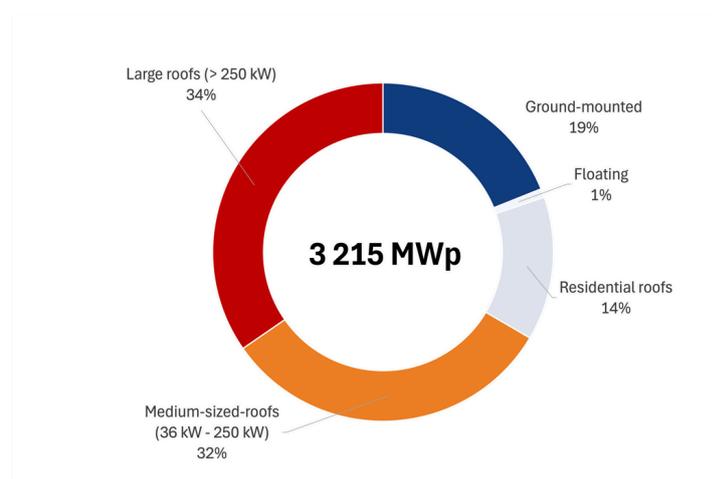
Year	Installed PV Capacity (MW DC)
2010	1 445
2011	3 562
2012	4 906
2013	5 691
2014	6 836
2015	7 920
2016	8 635
2017	9 713
2018	10 756
2019	11 931
2020	13 513
2021	16 960
2022	20 610
2023	24 576

Added Installed Capacity by Segment

2023



2022



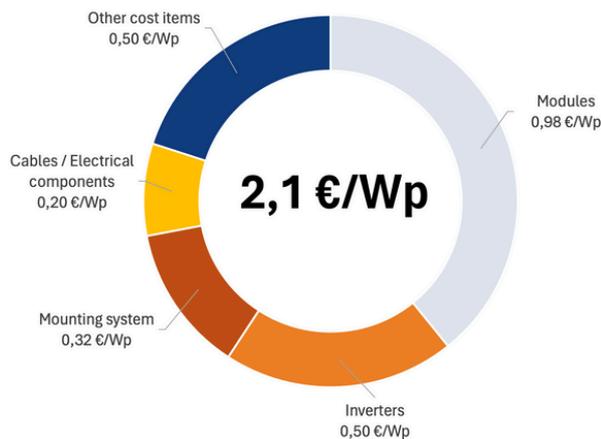
- In 2023, photovoltaic systems connected to the grid reached higher volumes than in 2022.
- Large rooftop installations saw a notable decline in volume.
- The medium-sized roofs segment and residential roofs both saw significant growth in 2023.



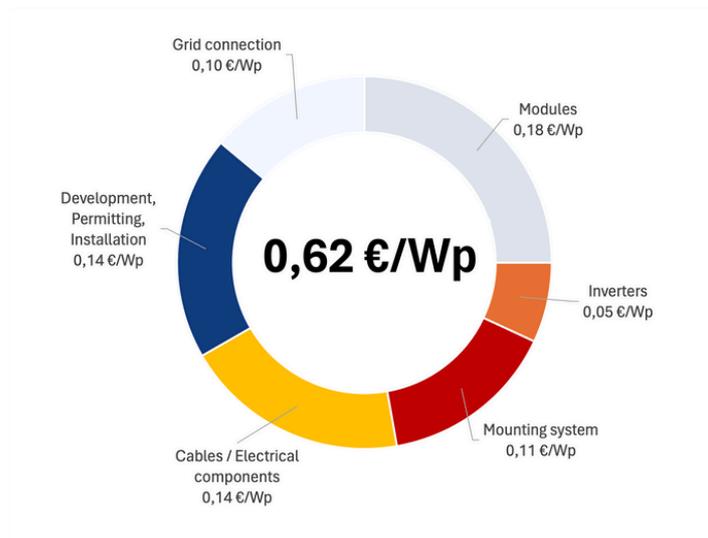
Competitiveness of PV Electricity

- In 2023, PV module prices dropped by 40-50% across all crystalline module types.
- European installers and wholesalers, including those in France, stockpiled modules as Asian manufacturers increased production, redirecting excess supply to Europe due to market barriers in North America and India.
- This oversupply affected the French market, as supply exceeded demand across Europe. High project debt financing in Europe, including France, limited project profitability despite the reduced module costs. With 40 to 100 GW of unsold modules now in European warehouses, the French industry projects and manufacturers were navigating the challenges of this significant oversupply.

Average breakdown of investment costs €/W (excluding tax) for a rooftop installation of 5 to 10 kWp in 2023



Average distribution of investment costs in €/W (excluding tax) for a ground-mounted installation > 1 MWp.



National Targets

- **Long-Term Strategy:** France's PV policies are guided by the National Low Carbon Strategy (SNBC), targeting carbon neutrality by 2050, and the Multi-Year Energy Programme (PPE), outlining 10-year energy objectives.
- **Targets:** The PPE, revised in November 2024, sets ambitious goals, including 60% decarbonized energy by 2030 and 48.1 GW of PV capacity by 2030, increasing to 140 GW by 2050. Public consultations on these updates are ongoing.
- **EU Requirements:** France's National Energy and Climate Plan (NECP) targets 41.3% renewables by 2030 (570 TWh). This may be revised to meet the EU's required 44%.

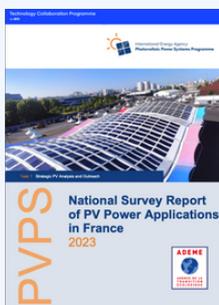


Policies supporting PV

- **Renewable Energy Acceleration Law (2023):** This mandates solar installations on new and renovated buildings over 500 m², and parking lots over 1,500 m². It also provides a legal definition for agrivoltaics and allows PV systems on unused land near infrastructure like roads and railways.
- **Calls for Tenders:** Regular competitive tenders are held to drive large-scale solar projects, ensuring stable remuneration and easier financing.
- **Self-consumption Incentives:** Growing focus on promoting residential and commercial self-consumption.

Outlook

Despite falling electricity prices, consumers continue investing in PV to hedge against future volatility. Mandatory solar installations on parking lots and new buildings are expected to boost the market, with record volumes projected for 2024.



Download the full report:

“National Survey Report of PV Power Applications in France 2023”

About IEA PVPS Task 1

IEA PVPS Task 1 facilitates the global exchange of technical, economic, environmental, and social information on photovoltaic power systems. It supports the overarching mission of enhancing photovoltaic solar energy's role in sustainable energy transitions, focusing on providing authoritative market and industry insights through its annual market reports. These efforts are essential in guiding policy decisions and industry strategies to promote the adoption and development of solar energy globally.