13th Snapshot of Global PV Markets

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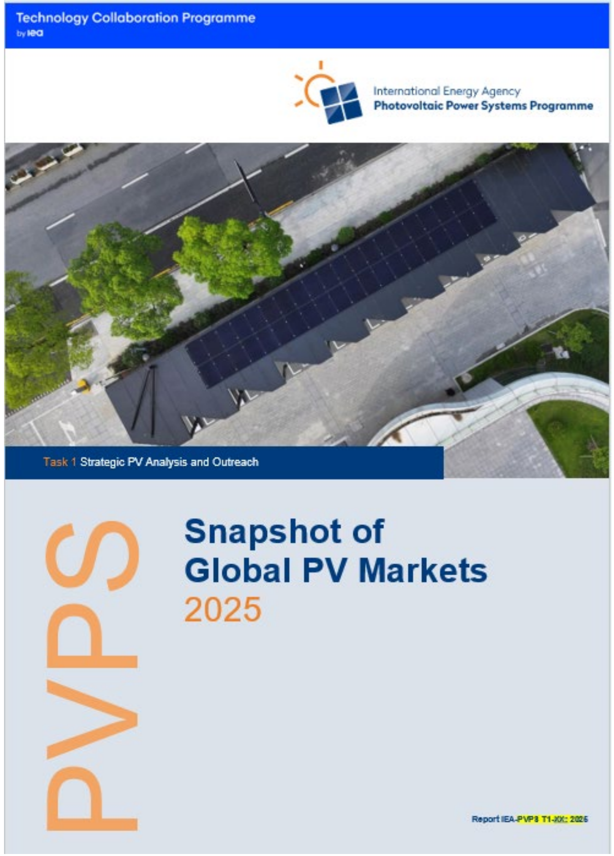
2025 Snapshot of PV Markets



- Data: country reports from IEA PVPS member countries.
- Available online.
- IEA PVPS proprietary methodology, hence some numbers might differ from what you saw in other publications.
- Published since 2013
- Consistent open methodology
- Let’s discuss numbers disagreements

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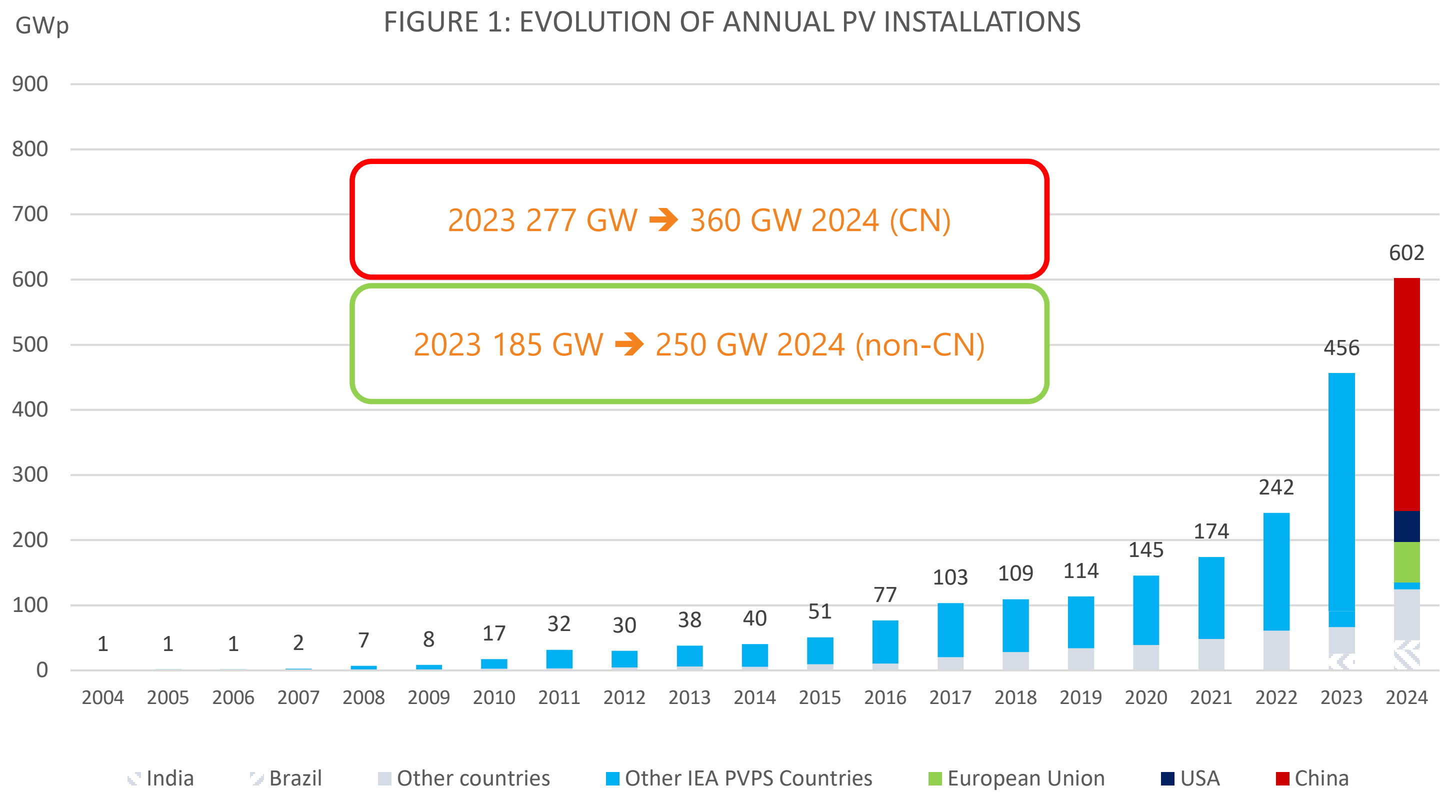
EVOLUTION OF ANNUAL PV INSTALLATIONS



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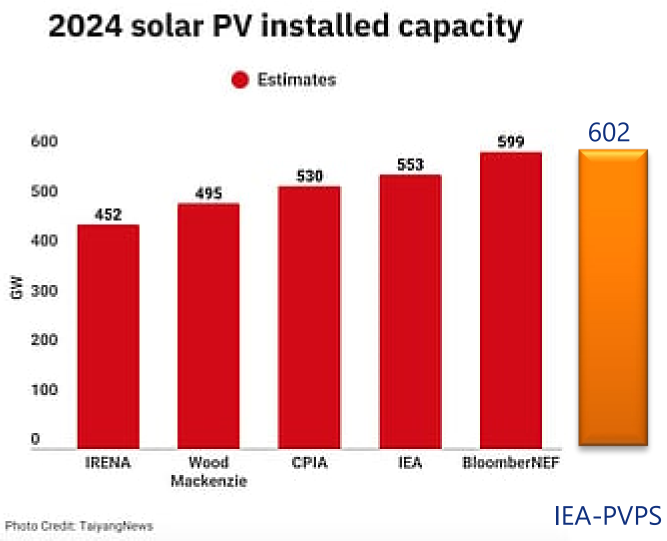
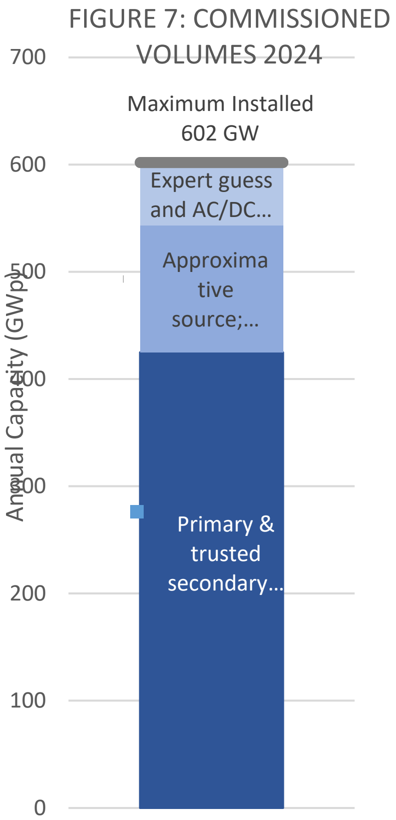
600 GW or less ?





- The AC/DC case
  - IRENA is in AC (or whatever)
  - What is exactly « AC » ?
- The « lost » GW (or shipments inconsistencies)

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TABLE 1: TOP 10 COUNTRIES FOR ANNUAL AND CUMULATIVE INSTALLED CAPACITY IN 2024

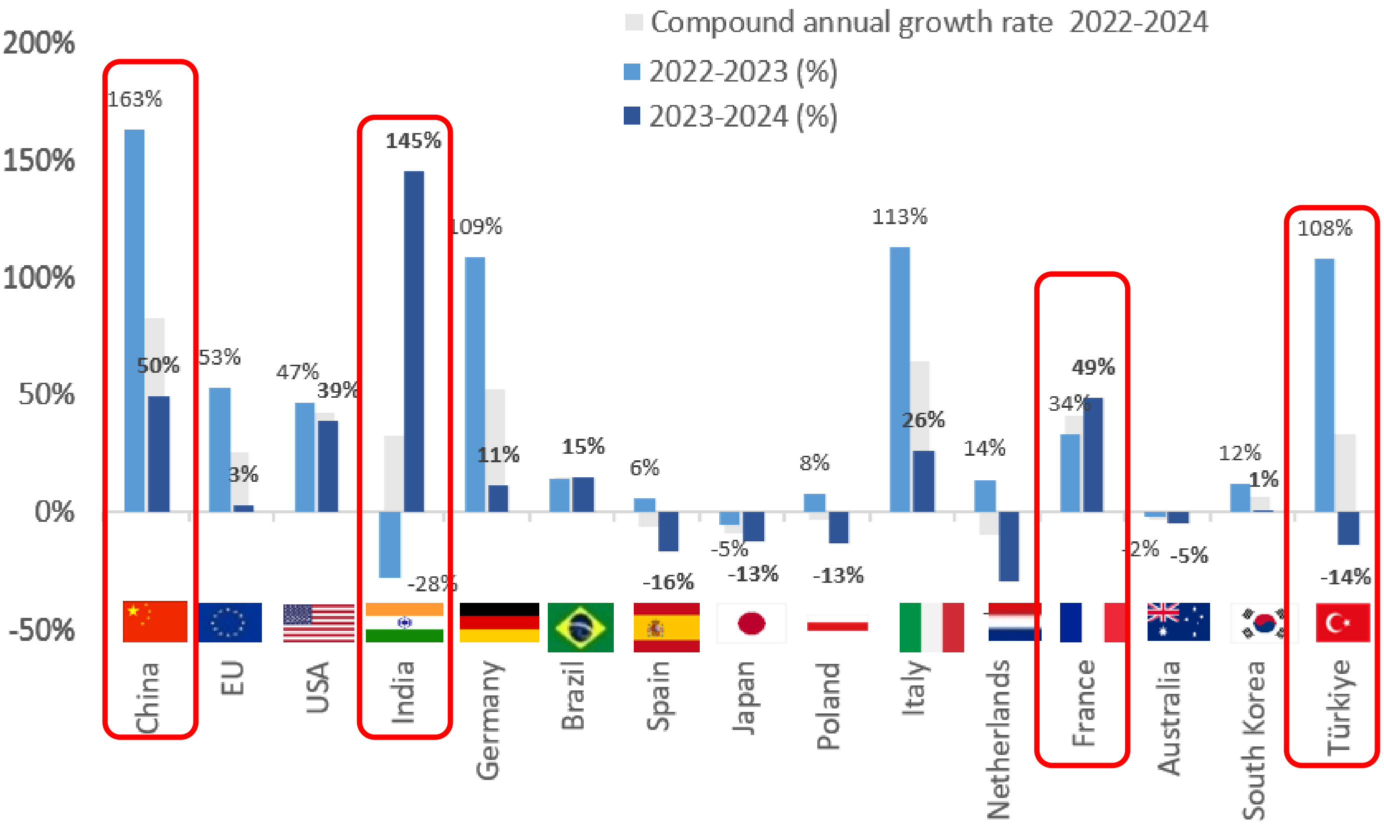
FOR ANNUAL INSTALLED CAPACITY			FOR CUMULATIVE CAPACITY		
1	China	357.3 GW*	1	China	1048.5 GW*
(2)	*European Union*	62.6 GW	*(2)*	*European Union*	339.4 GW
2	USA	47.1 GW	2	USA	224.1 GW
3	India	31.9 GW	3	India	124.6 GW
4	Pakistan	17.0 GW	4	Germany	99.8 GW
5	Germany	16.7 GW	5	Japan	96.9 GW
6	Brazil	14.3 GW	6	Brazil	52.1 GW
7	Spain	7.5 GW	7	Spain	47.2 GW
8	Italy	6.6 GW	8	Australia	38.6 GW
9	France	5.9 GW	9	Italy	37.0 GW
10	Japan	5.5 GW	10	South Korea	31.7 GW

Note: The European Union grouped 27 European countries in 2024, out of which Germany, Spain, Italy, France also appear in the Top Ten, either for the annual installed capacity or the cumulative installed capacity. The European Commission is a member of IEA-PVPS through its Joint Research Centre (EC-JRC). *IEA-PVPS preliminary assessment is higher than official China reporting

Source: IEA PVPS

EVOLUTION OF ANNUAL PV IN MAJOR MARKETS

FIGURE 2: EVOLUTION OF NEW ANNUAL CAPACITY IN MAJOR MARKETS



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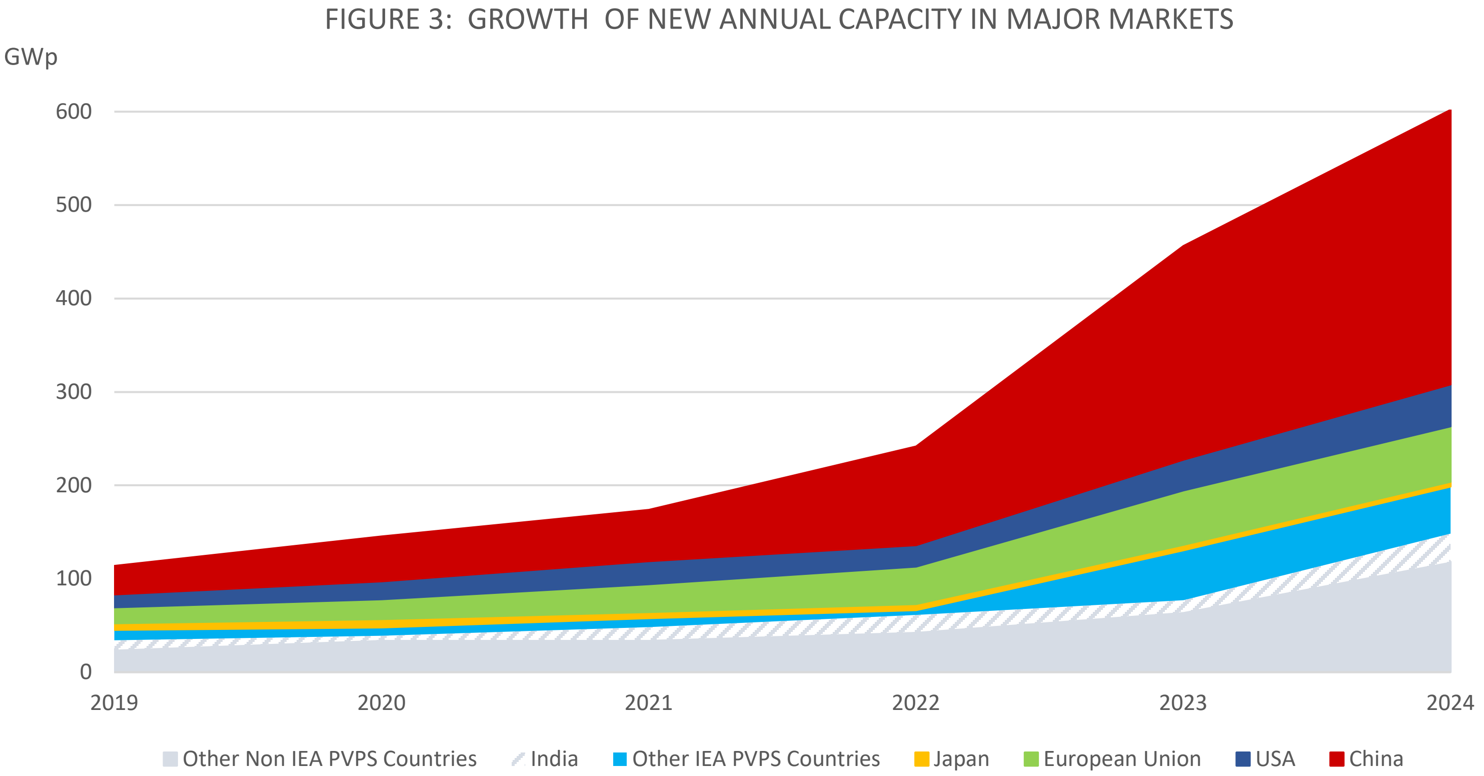
China leads PV development



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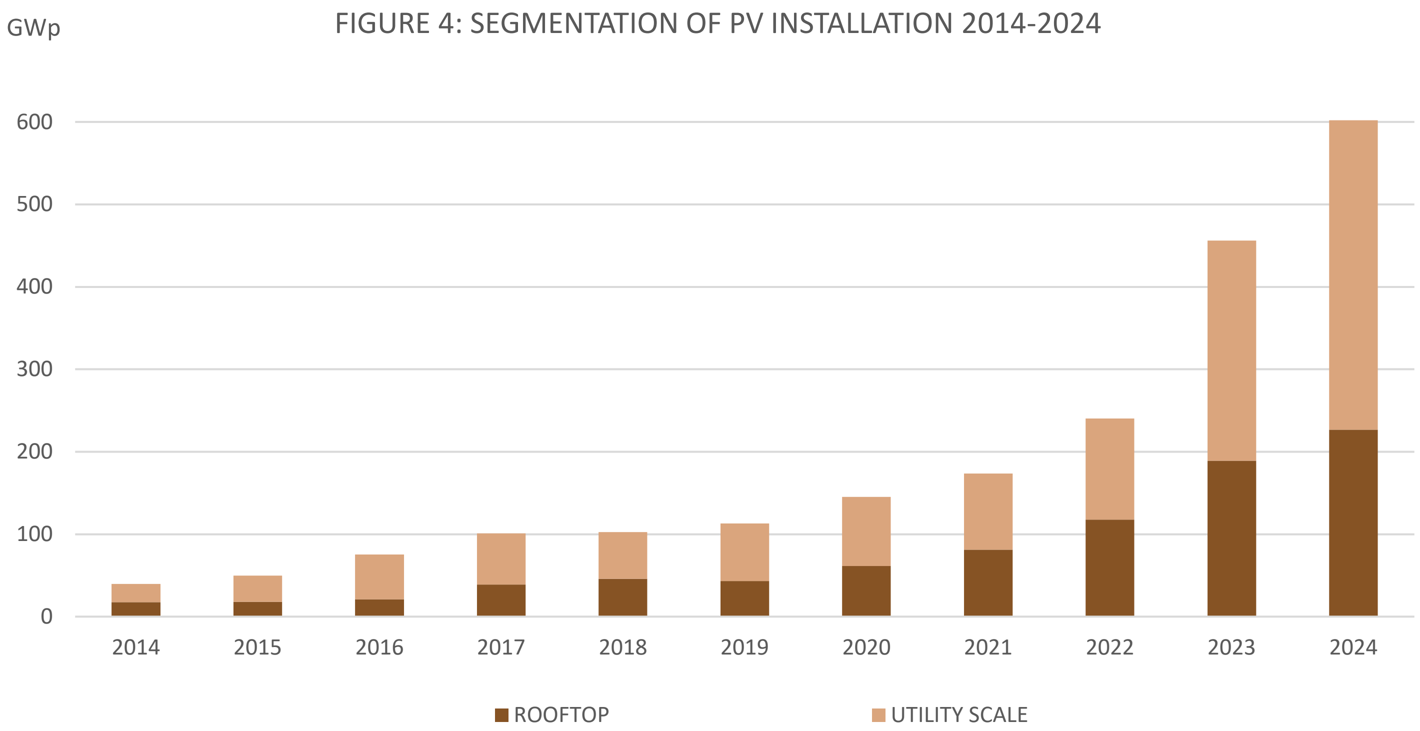
Utility-scale developing faster



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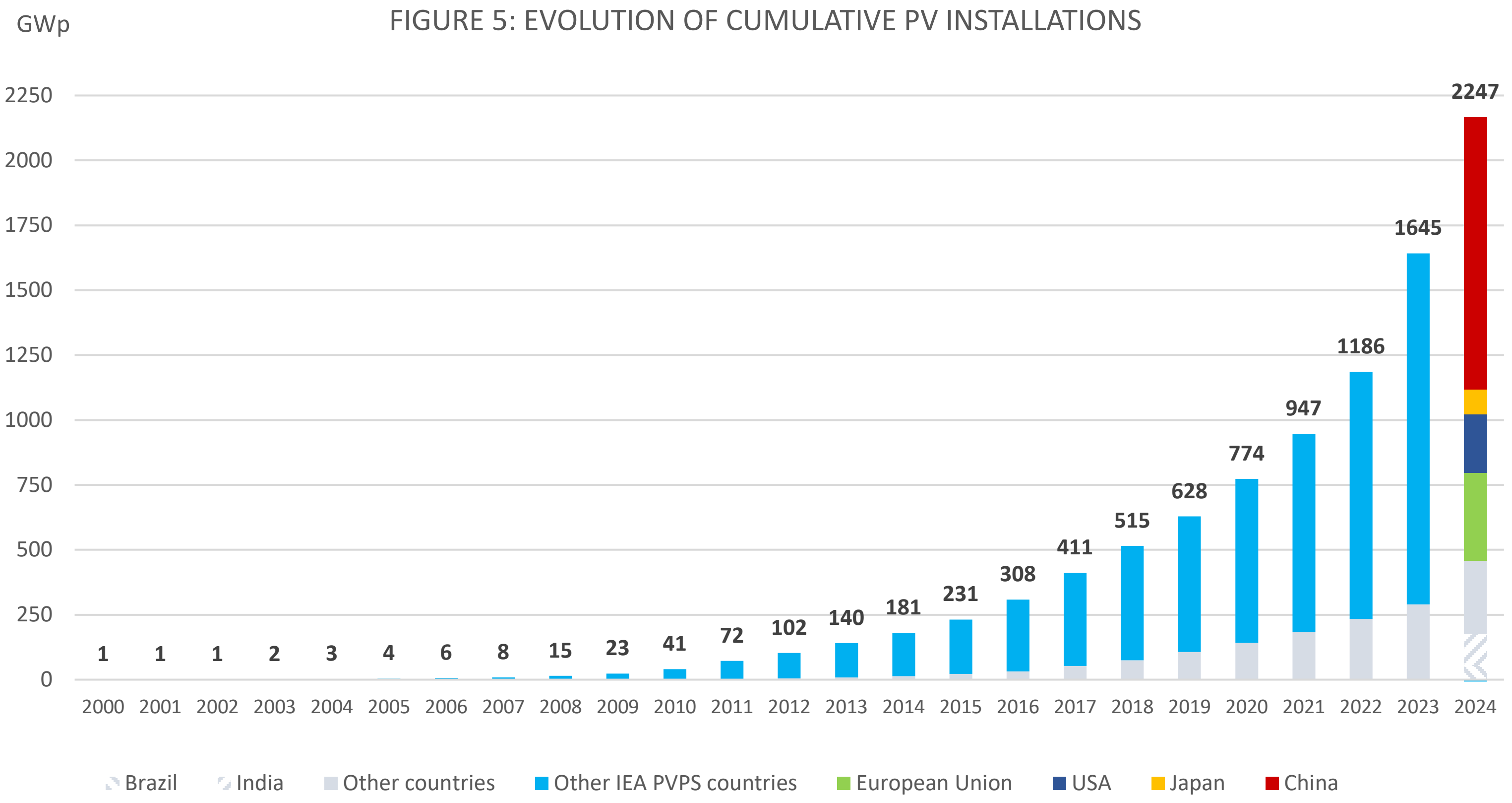
EVOLUTION OF CUMULATIVE PV INSTALLATIONS



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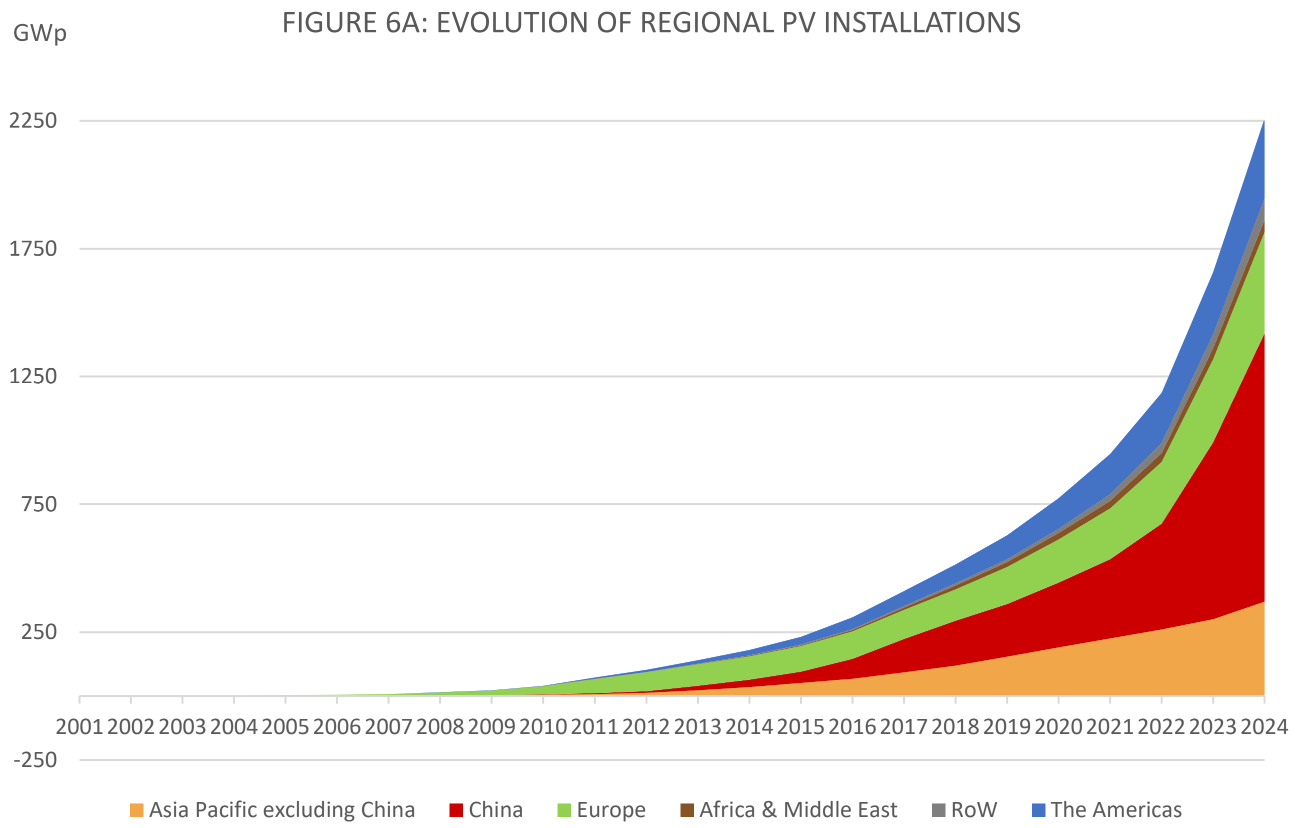
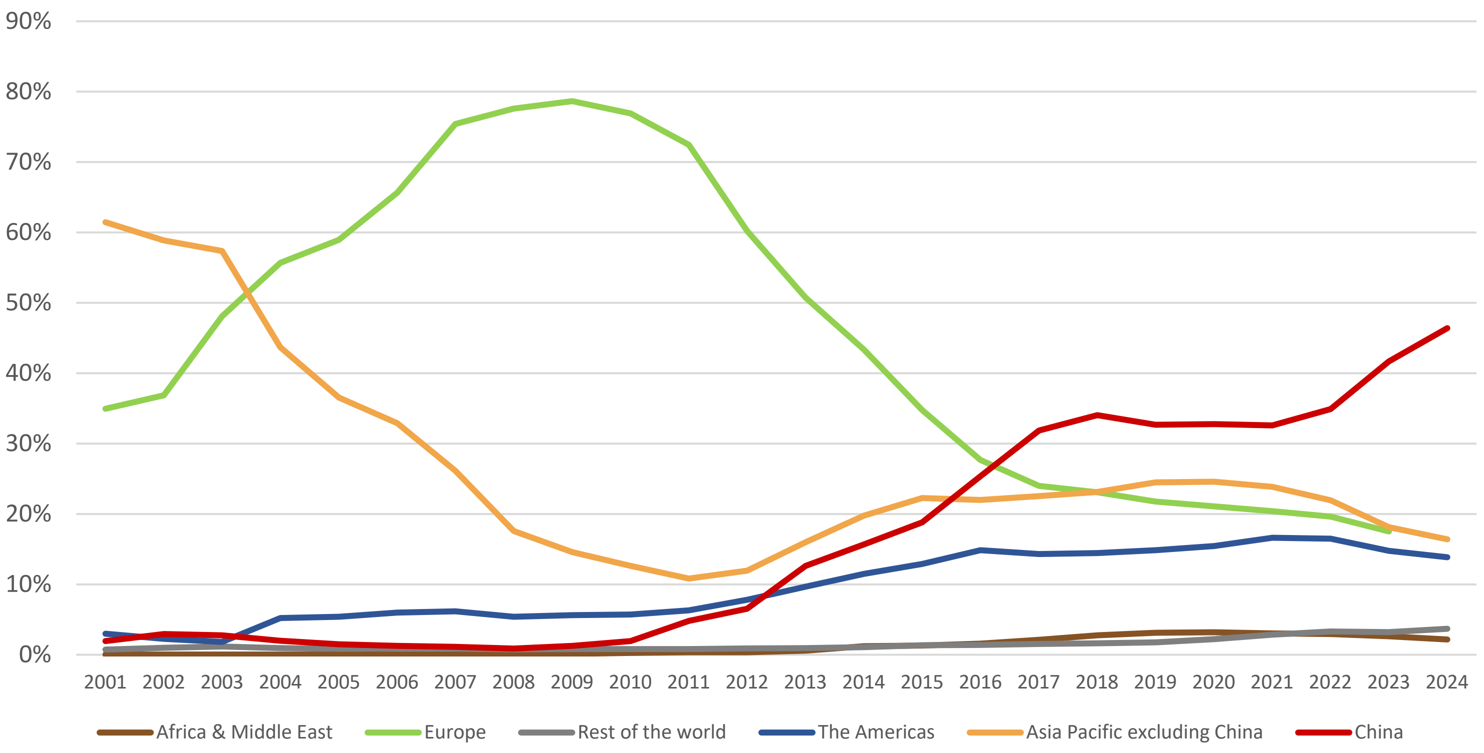
China leading



From Asia to Asia leading, but different countries

FIGURE 6B: EVOLUTION OF REGIONAL SHARE OF GLOBAL MARKET



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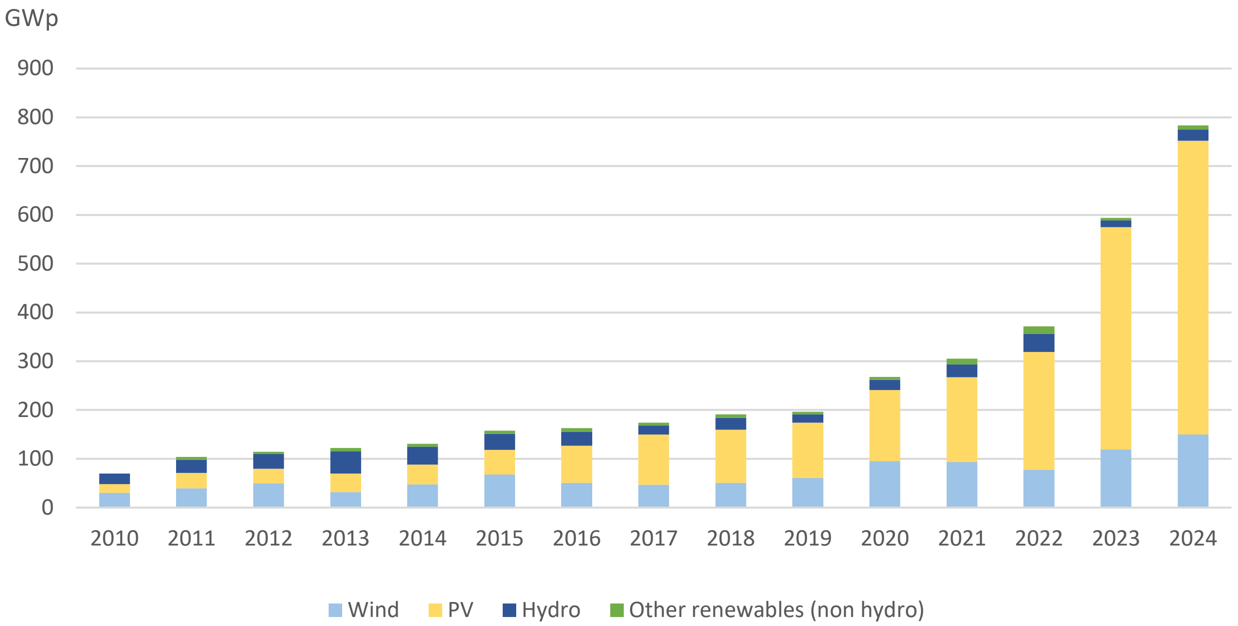
Solar dominating RES installations

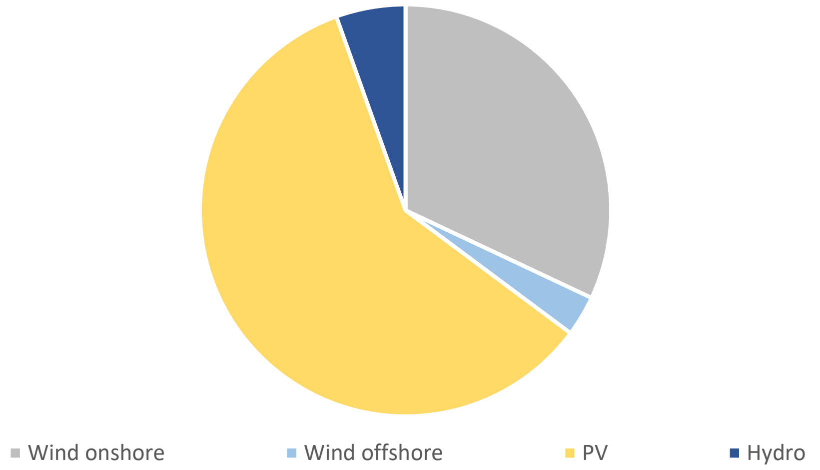
FIGURE 9: EVOLUTION OF ANNUAL RENEWABLE ENERGY INSTALLATIONS



Sources: compilation of IEA PVPS, IHA, BNEF, GWEC, WWEA, IRENA and estimations for 2024

Solar dominating the other renewables

FIGURE 10: SHARE OF ELECTRICITY GENERATION FROM NEW CAPACITY INSTALLED IN 2024 BY SOURCE



Sources: compilation of IEA PVPS, IHA, BNEF, GWEC, IRENA and estimations for 2024

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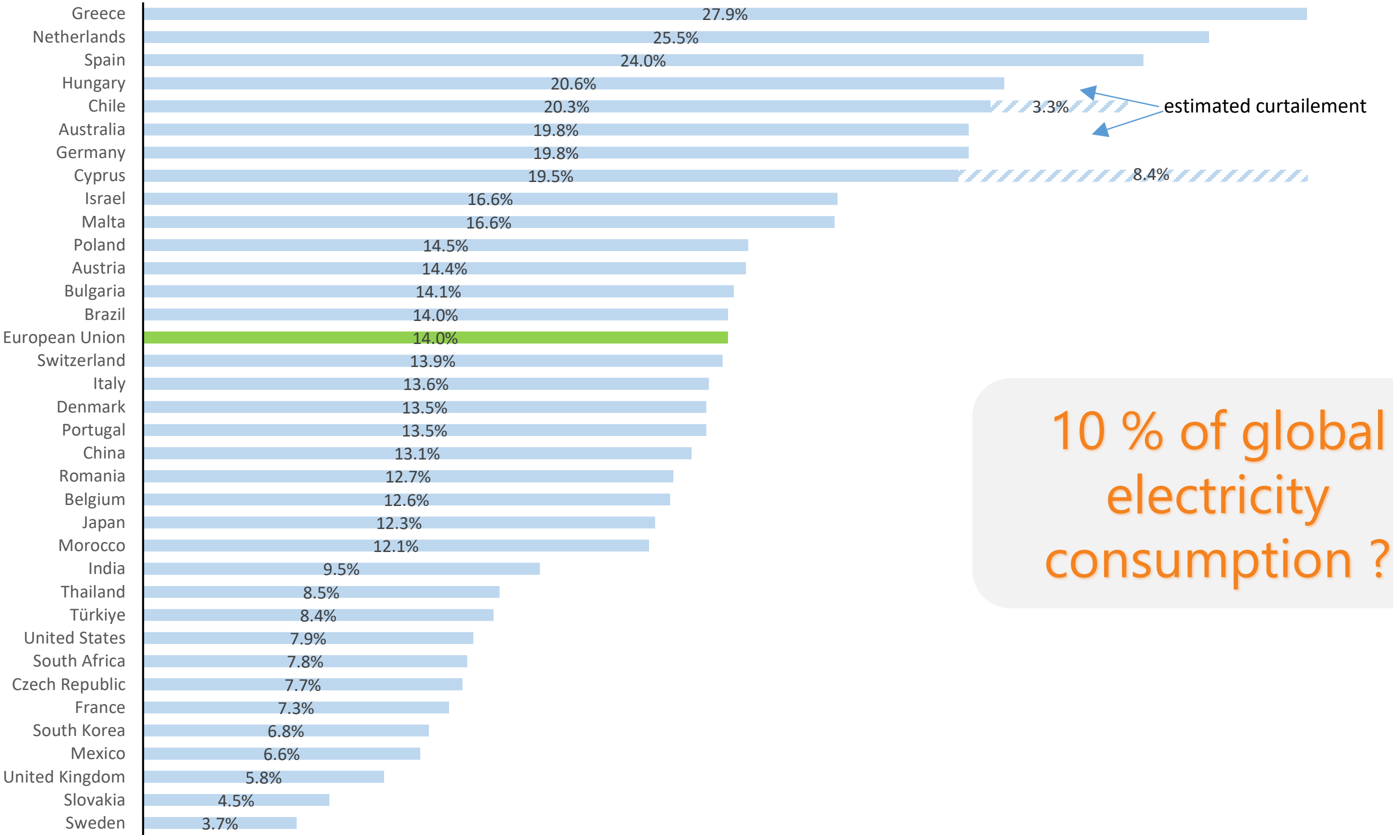
PV PENETRATION (production/consumption)

FIGURE 8: THEORETICAL PV PENETRATION 2024



10 % of global electricity consumption ?

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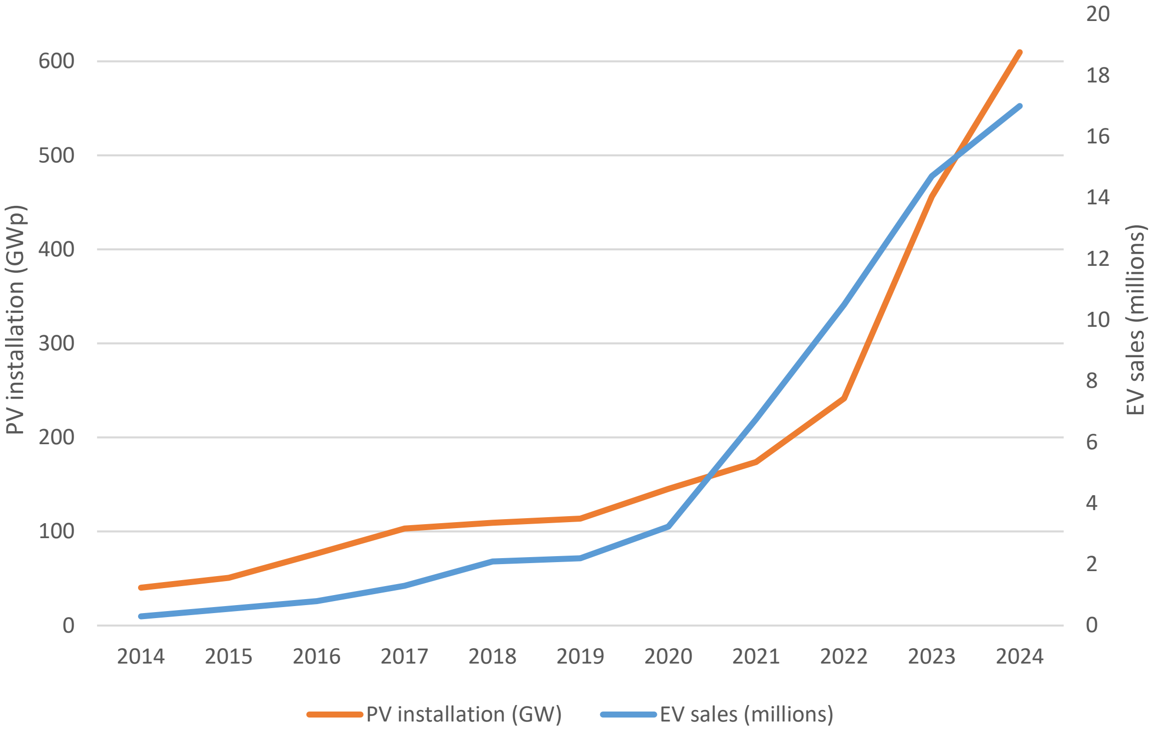
EV sales are faster than PV but both are growing

FIGURE 11: EVOLUTION OF EV AND PV ANNUAL GROWTH



Source : IEA PVPS, EV Volumes, Reuters

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Key take aways

- The PV market grew significantly in 2024, over 600 GWdc
- China’s growth was tremendous, once again, to absorb its oversupply
- Rest of the world’s growth around 250GW (+30% on last year)
- Different market developments around the globe: uneven growth
- PV above 20% of electricity demand in probably more than eight countries in 2025 (depending on curtailment)
- Curtailment is a key subject impacting profitability and penetration rates
- AC/DC numbers continue to confuse market statistics (hence uncertainty on CN)
- 2.2 TW of PV installed

Summary

- The global PV market continues to be driven by the industry push from China
- Local manufacturing is being supported with tariffs and local content bonus however some countries are faster than others to implement framworks and competitivity with China-manufactured products was not easy over 2024.
- Curtailment will increase and be a problem until countries adopt solutions that are being trialled around the world (storage, grid reinforcement, interconnections, sector coupling…)
- Trade issues
- A path towards 1 TW per year ?

Thank you for your attention

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