



**CLIMATE ENERGY FINANCE**

Tim Buckley, Director

[tim@climateenergyfinance.org](mailto:tim@climateenergyfinance.org)

[www.climateenergyfinance.org](http://www.climateenergyfinance.org)

## **RENEWABLE ENERGY- BASED EXPORTS**

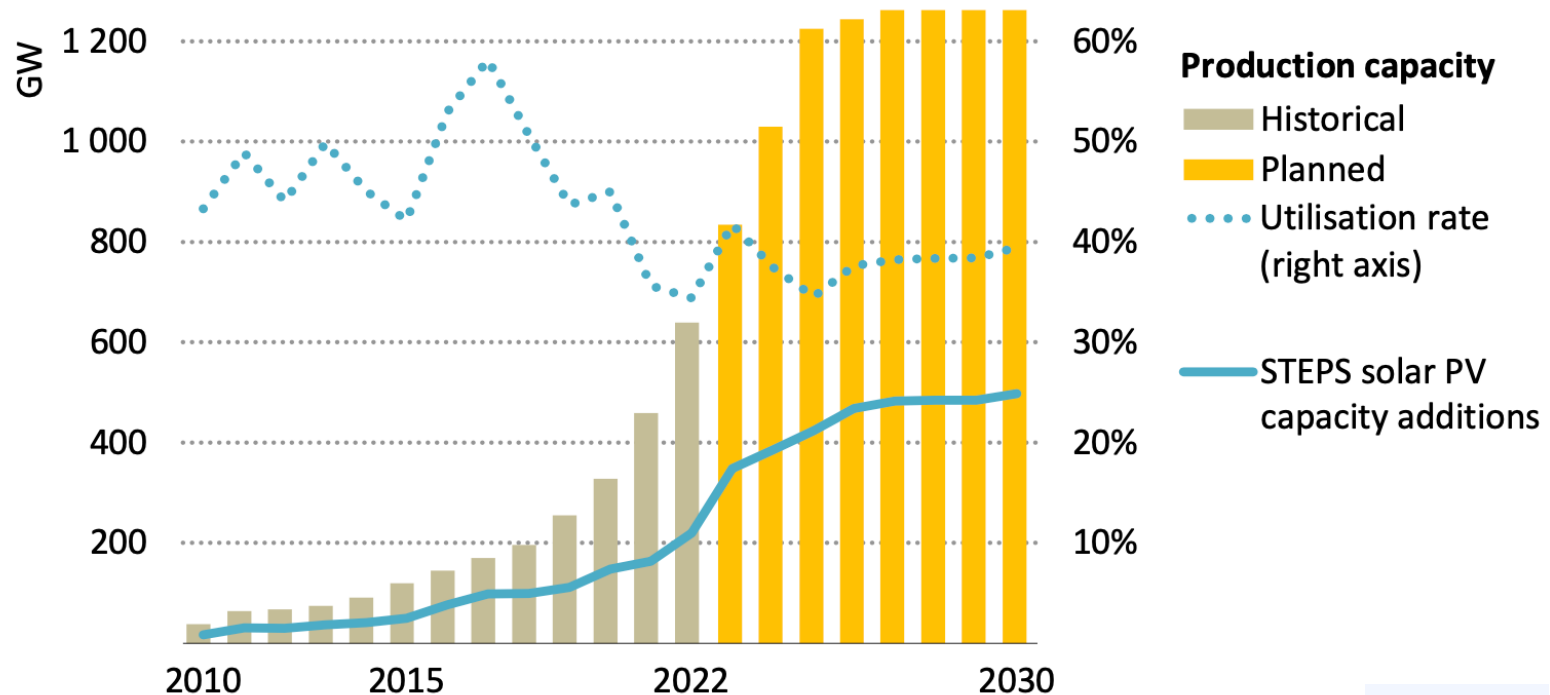
**Australian National  
University Energy Update**

**28 November 2023**

# 1. The Global Energy Transition: Solar

Solar Growth is Accelerating, Globally. BNEF forecasts 392GW in 2023, +56% yoy, and module prices of US\$0.145c/w by end 2023.

**Figure 1.10** ▶ Global solar module manufacturing and solar PV capacity additions in the STEPS, 2010-2030



*Planned expansion of solar manufacturing outpaces solar PV capacity additions to 2030; its low utilisation rate presents a huge opportunity to accelerate clean energy transitions*

## 2. China Leads the World in Renewable Energy

China installed 197GW of VRE in 10MCY2023 (+109% yoy), and is on track to deliver their 1,200GW by 2030 RE target 6 years early

### New Capacity Installed in China in Jan-Oct 2023

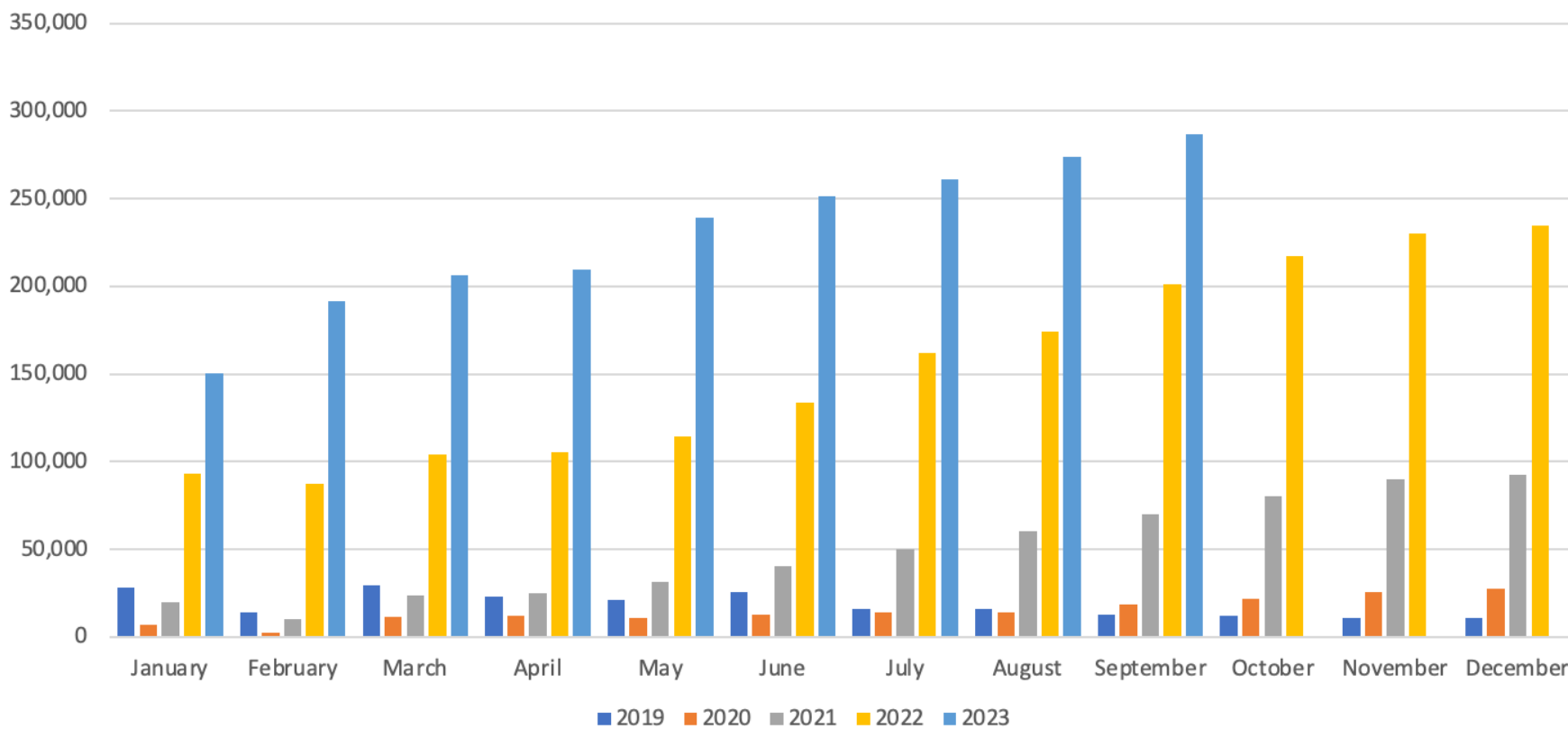
		Jan-Oct 2023	Share of new adds (%)	Change (yoy %)	Oct-23	Share of new adds (%)
Thermal Power	GW	44	17%	60%	4.3	18%
Hydropower	GW	8	3%	-52%	0.6	2%
Nuclear Power	GW	1	0%	-48%	0.0	0%
Wind Power	GW	37	15%	76%	3.8	16%
Solar Power	GW	143	57%	145%	13.6	57%
Other (Biomass, W2E)	GW	17	7%		1.5	6%
<b>Total capacity added</b>	<b>GW</b>	<b>250</b>	<b>100%</b>	<b>95%</b>	<b>23.8</b>	<b>100%</b>
Variable Renewable adds	GW	197	79%	109%	19.0	80%
Zero Emissions Capacity Adds	GW	206	83%	105%	19.5	82%

Source: NBS, CEF Estimates

## 2. China Leads the World in EVs

9MCY2023, BYD sold 2.07 million plug-in electric cars, up 76% yoy.

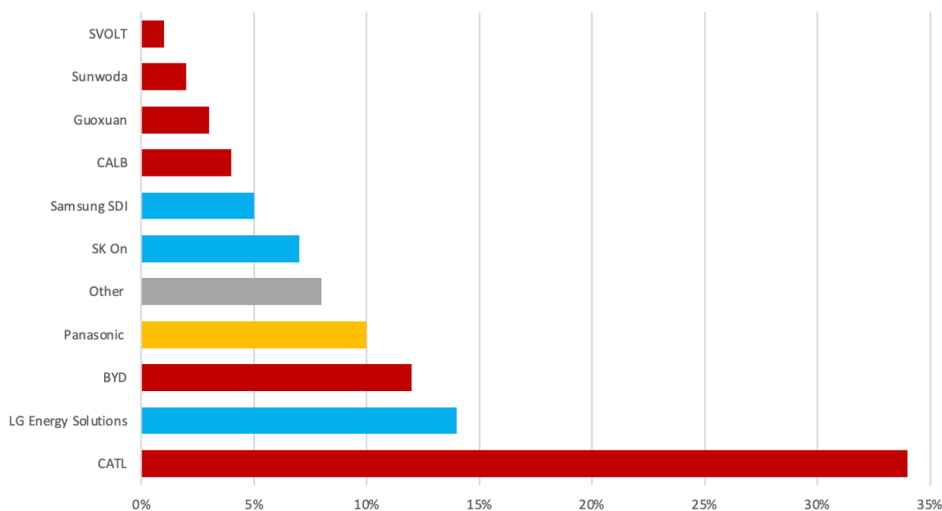
BYD Passenger EV Sales to September 2023



## 2. China Leads the World in Batteries

China has 6 of the top 10 battery manufacturers

**Figure: Global EV Battery Manufacturer Market Share 2022:**



Source: SNE Research, CleanTechnica



CLIMATE ENERGY FINANCE

29 June 2023

### A VALUE-ADDED CRITICAL MINERALS BILATERAL AGREEMENT FOR AUSTRALIA AND SOUTH KOREA

Australia's imperative to create a mutually-beneficial bilateral agreement with South Korea, leveraging the US Inflation Reduction Act to complement Korea's battery industry and value-add onshore.

**Matt Pollard, Global EV Supply Chain Analyst, CEF**  
**Tim Buckley, Director, CEF**  
**Dr Annemarie Jonson, Director Communications**

# 3. US Inflation Reduction Act 2022

~US\$1Trn funding => a resurgence in US manufacturing post the IRA

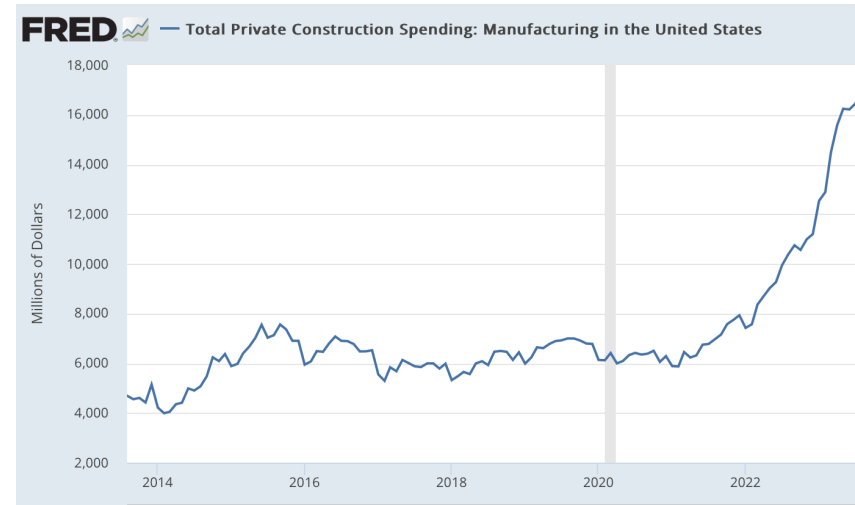


THE WHITE HOUSE

JULY 05, 2023

## FACT SHEET: Bidenomics Has Driven \$500 Billion in Private Sector Investments Across the Country, Is Growing South Carolina's Economy From the Middle Out and Bottom Up

President Biden's economic agenda—Bidenomics—is growing the American economy from the middle out and the bottom up, not the top down. Tomorrow, President Biden will announce that companies have committed **over \$500 billion in manufacturing and clean energy investments** in the United States since the beginning of his Administration. The President will visit **South Carolina, where companies have announced \$11 billion** in manufacturing and clean energy investments, and the Biden-Harris Administration has already awarded **\$2.6 billion in funding for infrastructure projects**. The President will highlight that Enphase Energy is joining a growing list of companies beginning clean energy manufacturing operations in the United States—mobilized directly by President Biden's Inflation Reduction Act—**creating 1,800 new jobs nationwide, including up**



Source: The US Census Bureau, monthly to August 2023  
<https://fred.stlouisfed.org/series/PRMFGCON>

# 1. The Global Energy Transition

EU ETS & CBAM – World leading, but yet to be replicated. The Australian Safeguard Mechanism is a good start. We need a CO<sub>2</sub> price.

