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KraneShares

The China Opportunity Behind the Global Energy Transition

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The China Opportunity behind the Global Energy Transition



Introduction to KraneShares

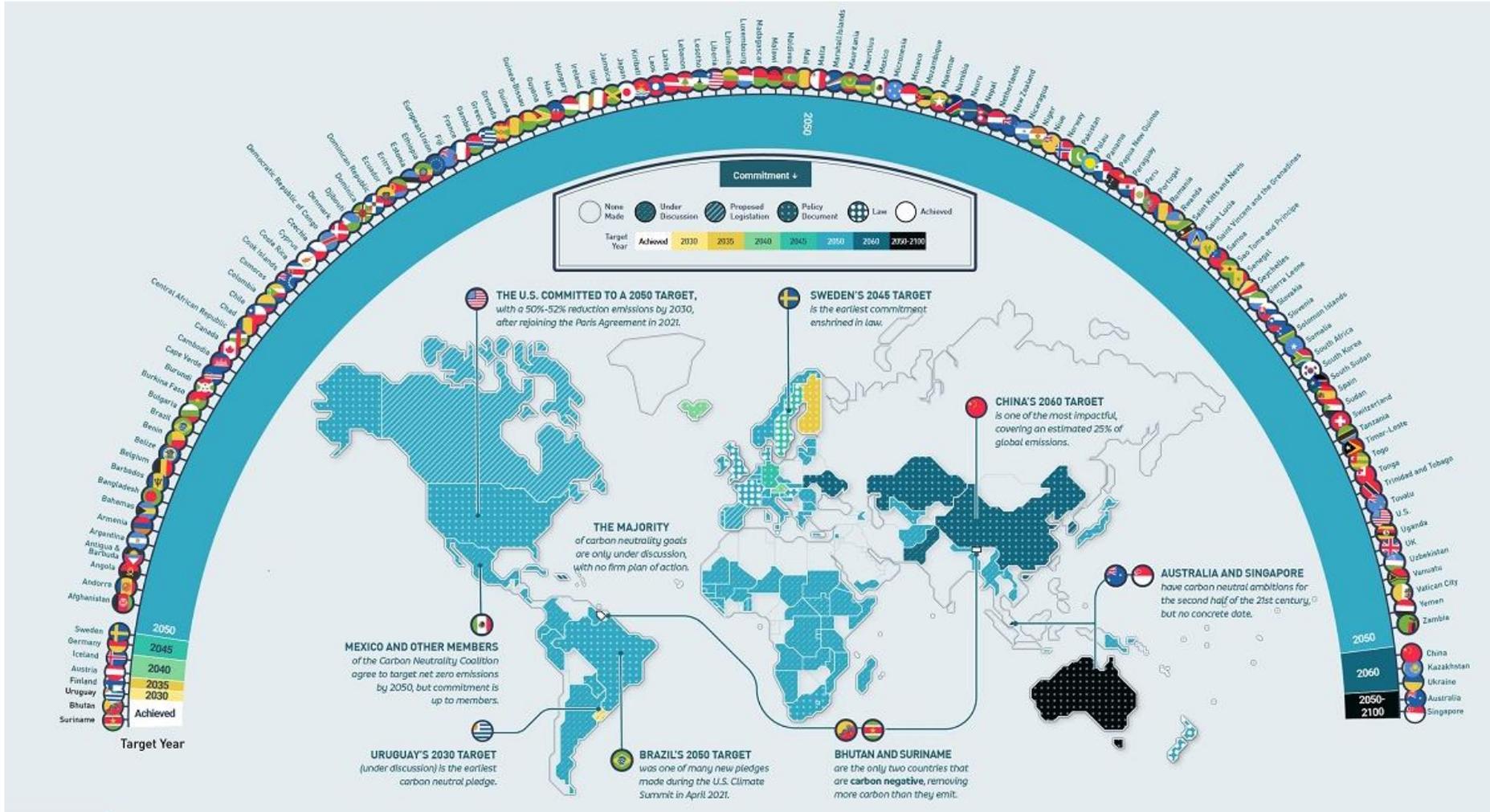
About KraneShares

Krane Funds Advisors, LLC is the investment manager for KraneShares ETFs. Our suite of China focused ETFs provides investors with solutions to capture China's importance as an essential element of a well-designed investment portfolio. We strive to provide innovative, first to market strategies that have been developed based on our strong partnerships and our deep knowledge of investing. We help investors stay current on global market trends and aim to provide meaningful diversification. Krane Funds Advisors, LLC, is a signatory of the United Nations-supported Principles for Responsible Investing (UN PRI). The firm is majority owned by China International Capital Corporation (CICC).



Global Commitment - The World Aims for Carbon Neutrality

Most countries have committed to achieving net-zero carbon emissions by 2050.

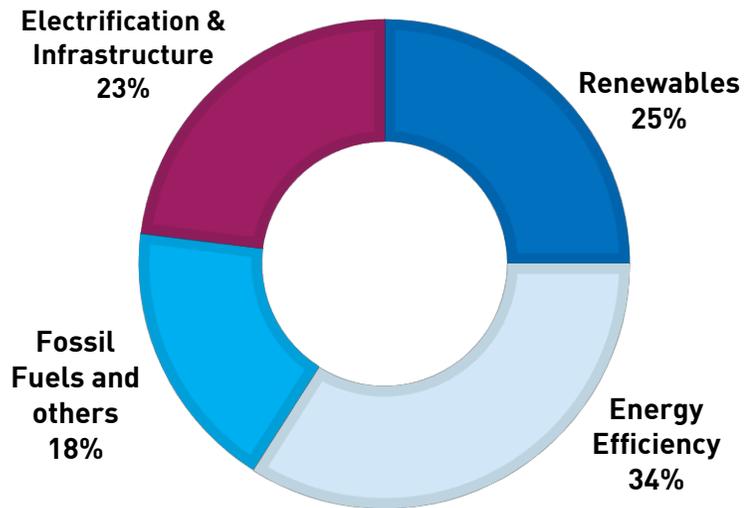


Source: Energy and Climate Intelligence Unit, Carbon Neutrality Coalition, Climate Action Tracker

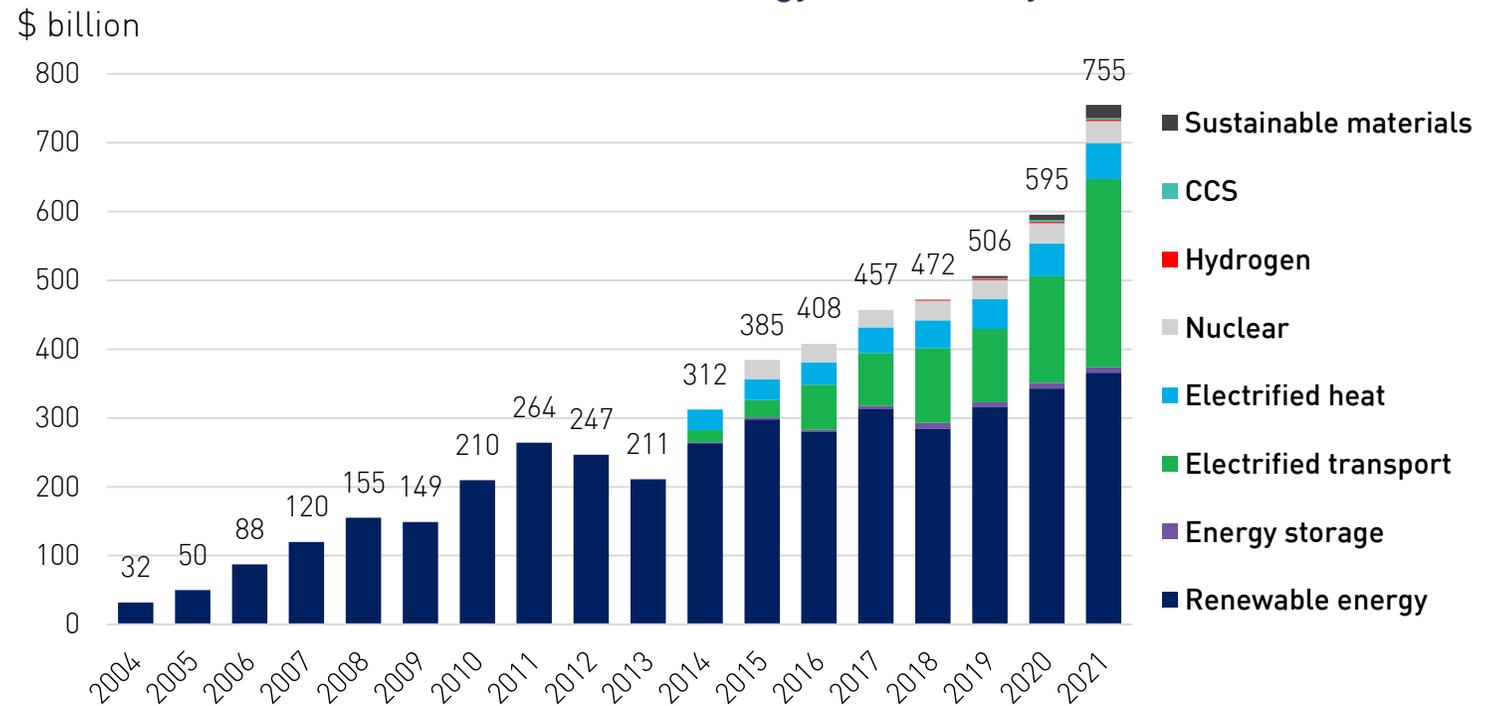
A \$200+ trillion investment could be necessary for the energy transition¹

As the economy decarbonizes, we expect to see massive demand for renewable energy, electrification and battery storage.

Investment Needed For Transition (2020 – 2050)¹



Global Investment In Energy Transition By Sector²



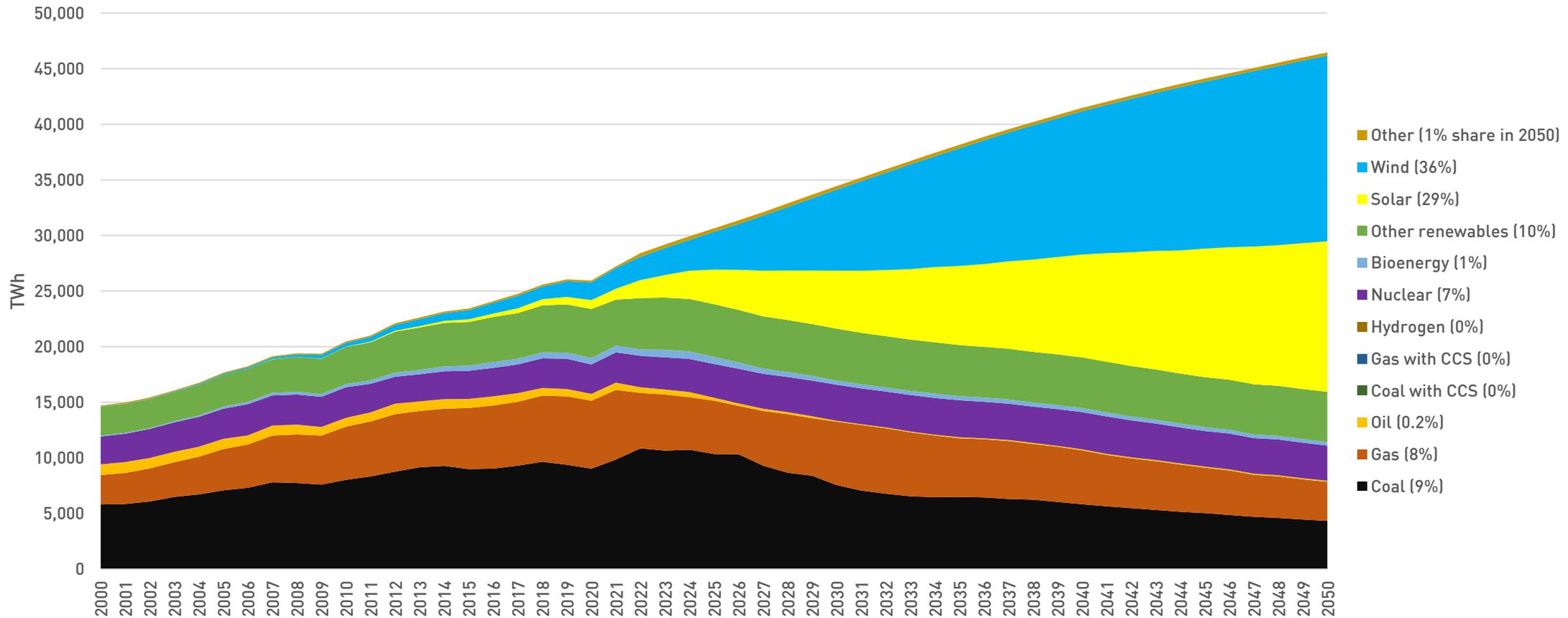
1. International Renewable Energy Agency (IRENA). Forecast as of June of 2021. Retrieved on 6/30/2023

2. Bloomberg New Energy Finance (BNEF). Note: start-years differ by sector but all sectors are present from 2019 onward. Data as of 12/31/2021. Retrieved on 6/30/2023.

Estimating The Solar and Wind Opportunity

Bloomberg New Energy Finance’s “green scenario” projects the use of renewable sources to supply 85% of the world’s electricity by 2050.¹

Power Generation by Technology²



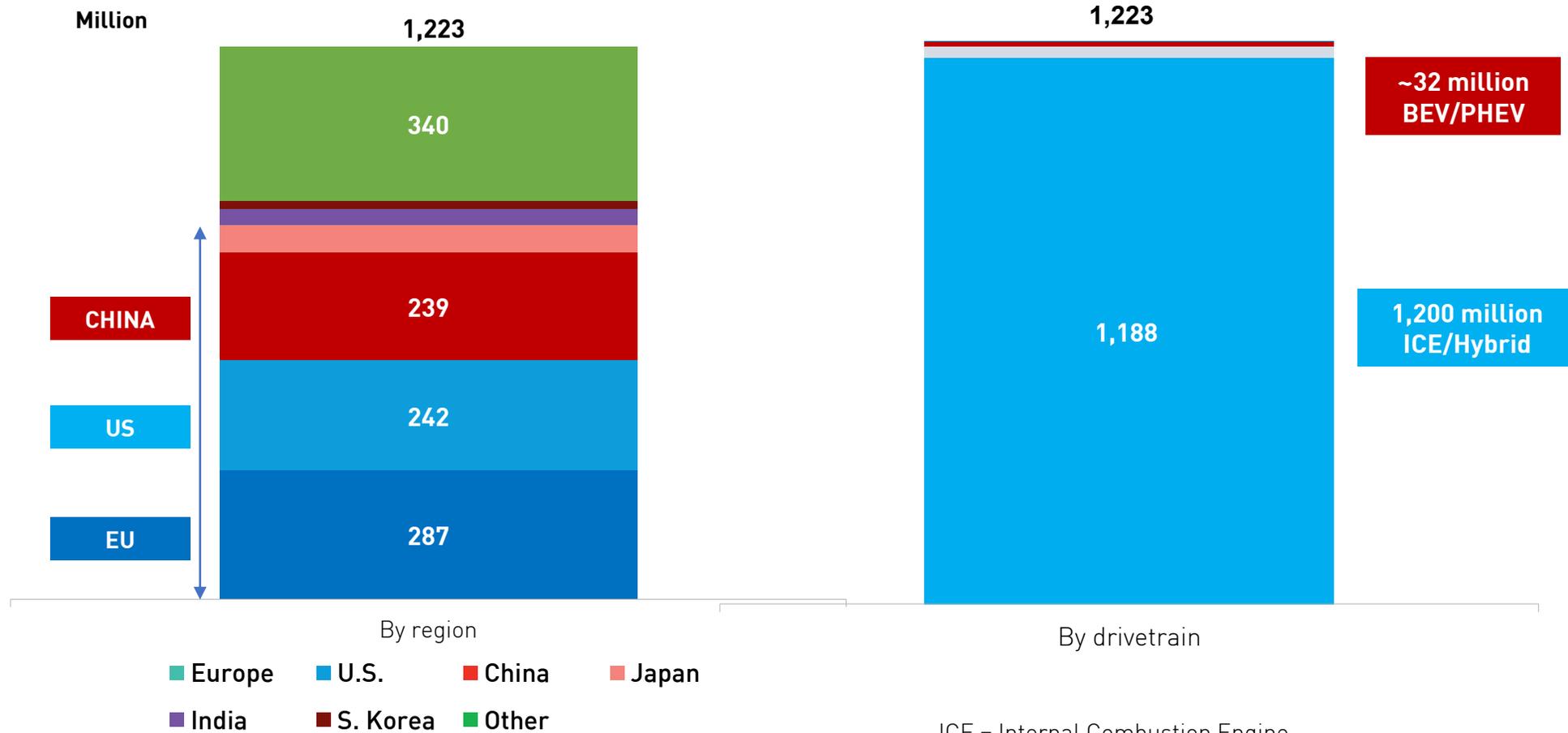
1. Bloomberg New Energy Finance (BNEF), “Achieving Net-Zero by 2050, BloombergNEF’s Green Scenario: New Energy Outlook 2021”, August 18, 2021. Retrieved on 6/30/2023.

2. Data from Bloomberg New Energy Finance (BNEF) as of 12/31/2022.

Estimating The EV Opportunity

1.2 billion ICE cars could be replaced with EVs in the next 30 years. As of June 2023, there were over 30 million EVs on the road.

Total Global Passenger Vehicles (ICE & EVs)



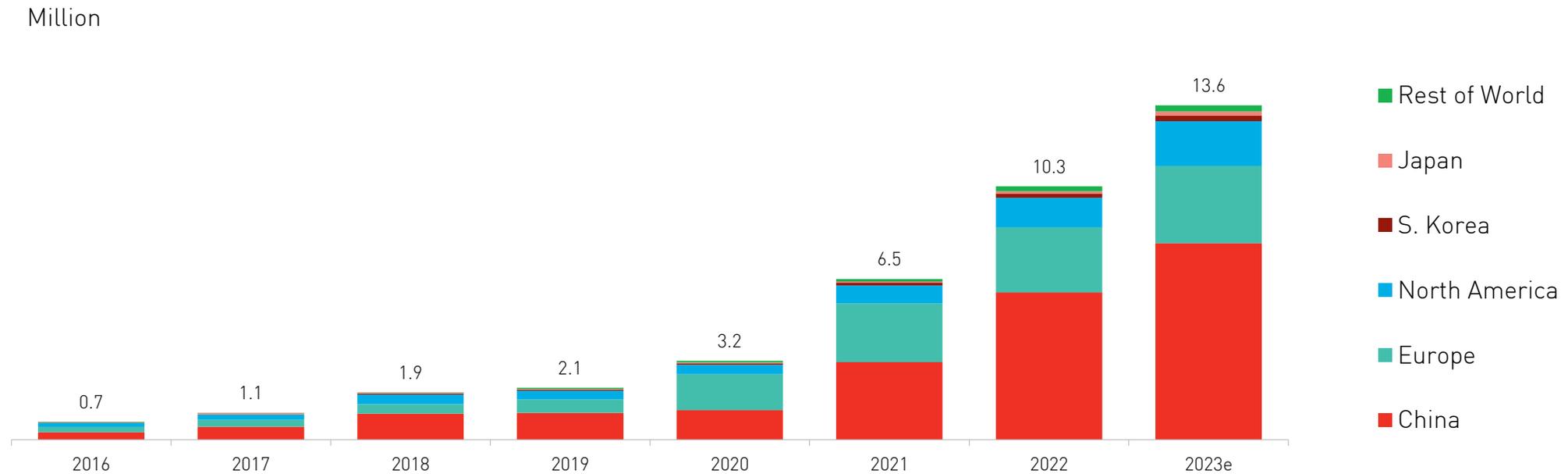
ICE = Internal Combustion Engine.
EV = Electric Vehicle.

Data from Bloomberg New Energy Finance (BNEF) as of 12/31/2022.

Electric Vehicles Sales expected to grow by more than 30% in 2023

67.2 million automobiles sold in 2022 globally, 10.3 million are EVs.

Projected EV Sales for 2023 *

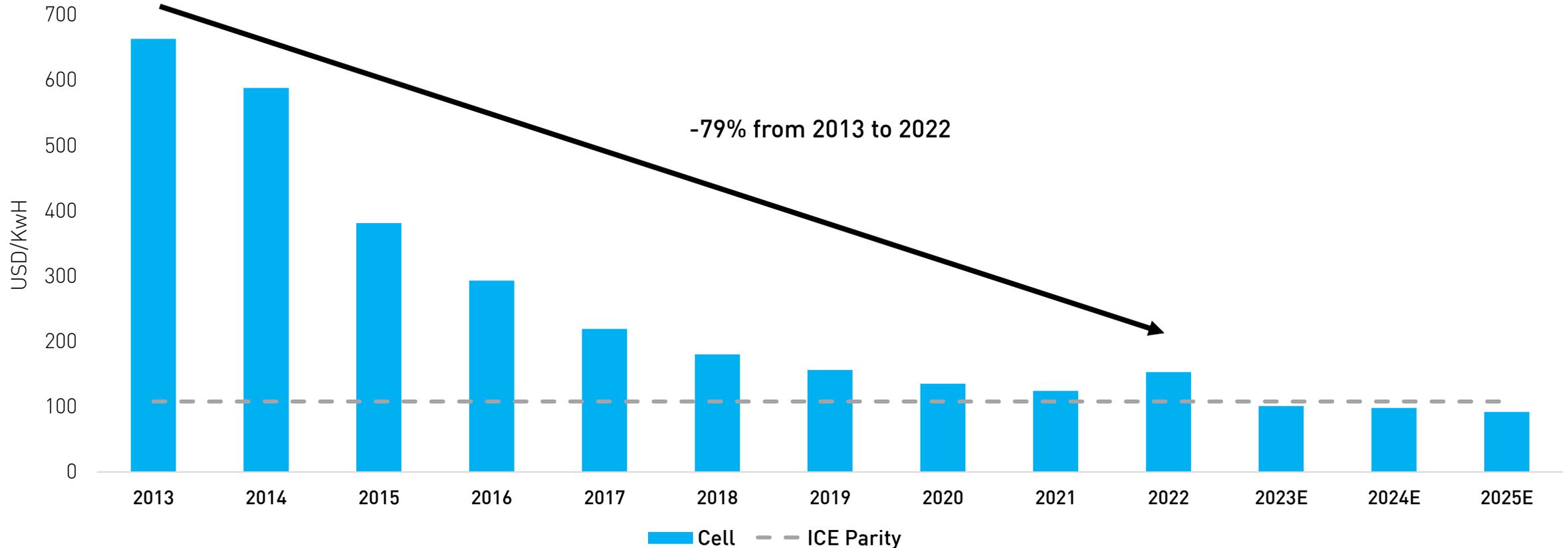


* Includes BEVs or Battery Electric Vehicles and PHEVs are Plug-in Hybrid Electric Vehicles. Figures are estimates.

Source: Bloomberg New Energy Finance (BNEF), Data as of February of 2023

Innovation: Energy storage continues to be driven by innovation through multiple battery chemistries and is a key driver of EV sales.

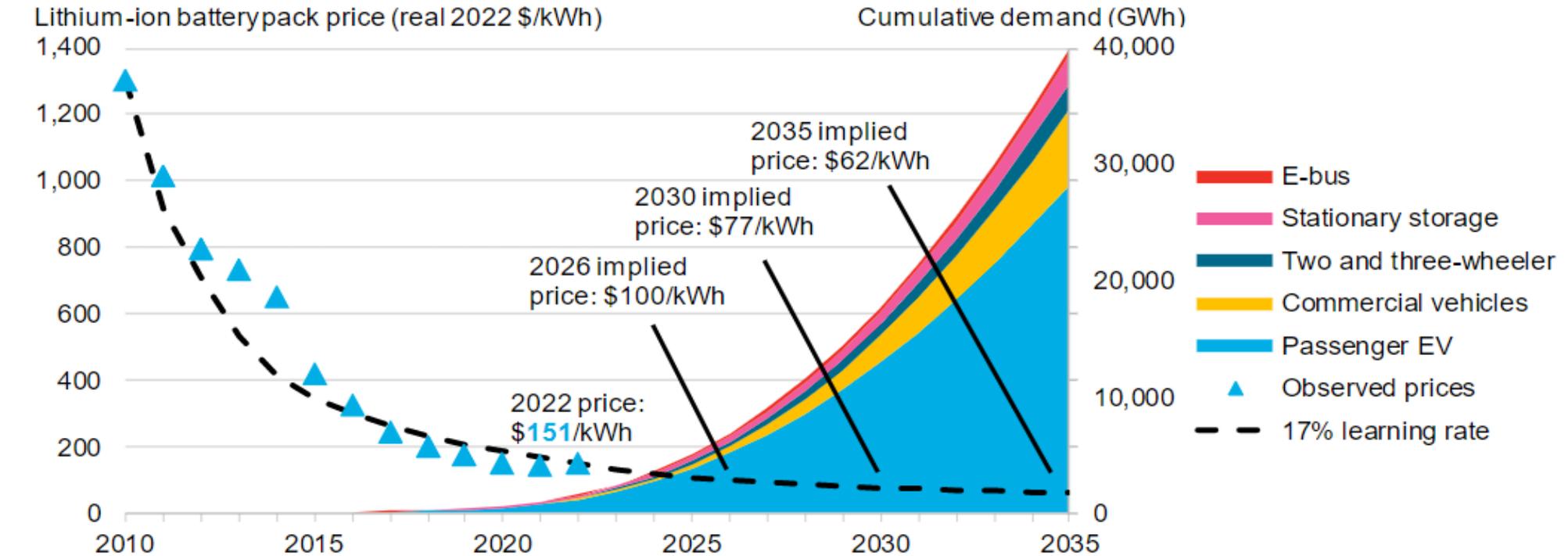
EV Battery price vs. Internal Combustion Engine (ICE)



Data from Macquarie, US Department of Energy and Statista as of 12/31/2022. Retrieved on 6/30/2023. kWh: A measure of electrical energy use equivalent to the consumption of 1,000 watts for 1 hour.

More energy storage capacity is under construction

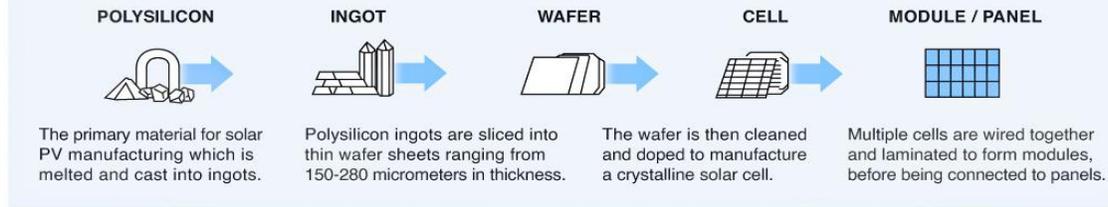
Battery makers are racing to meet explosive demands



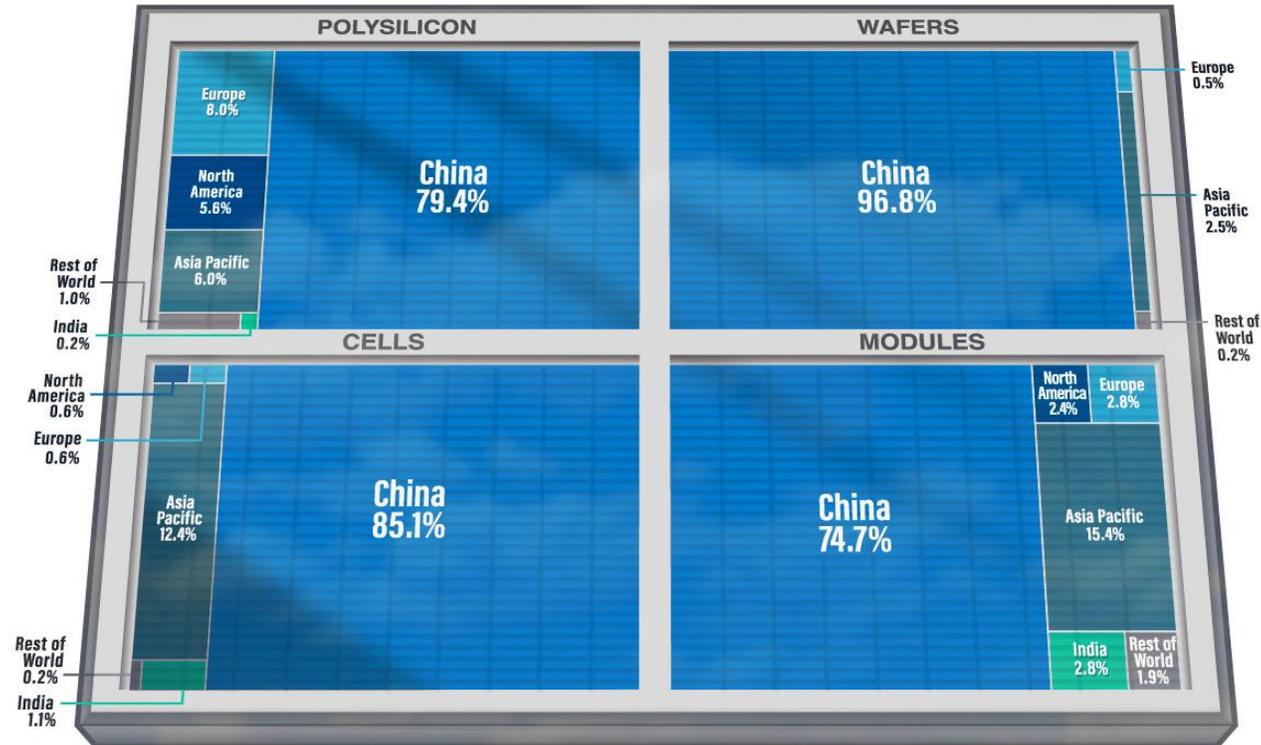
Source: BloombergNEF

Sources: Bloomberg New Energy Finance (BNEF) and public companies. Data Jan 2023. MWh = megawatt hours.

The Manufacturing Process for Solar PV Panels



Share of Manufacturing Capacity by Country/Region in 2021



China's Dominance in Global Solar Industry



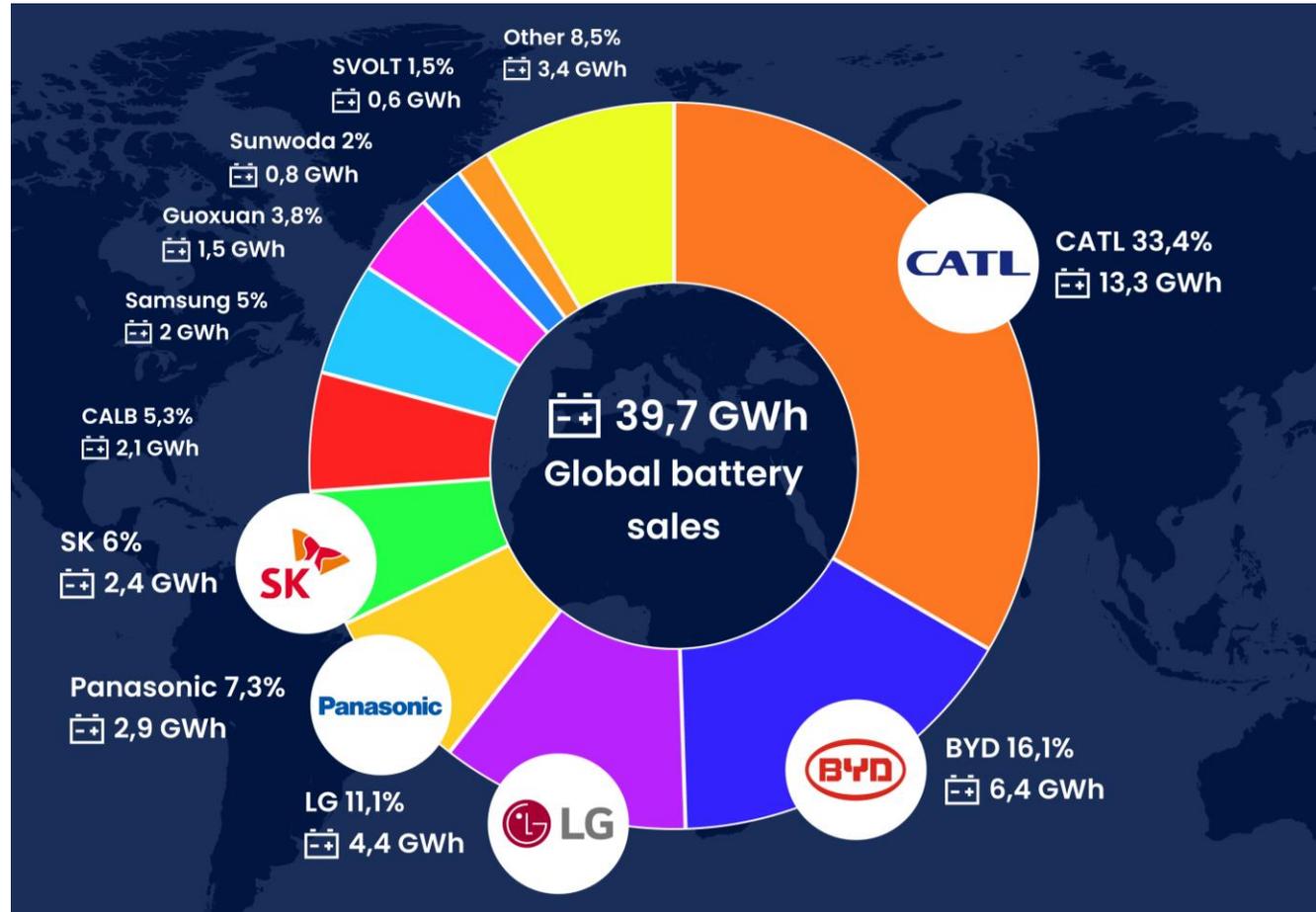
China made up 55% of global solar panel manufacturing capacity in 2010, with its share rising to 84% in 2021.



The total value of global solar PV related trade increased by more than 70% YoY to reach over \$40B in 2021.

China Emerges as Global Market Leader in the Battery Industry

CATL and BYD Dominate Global Battery Sales, Together Accounting for Nearly Half of the Market



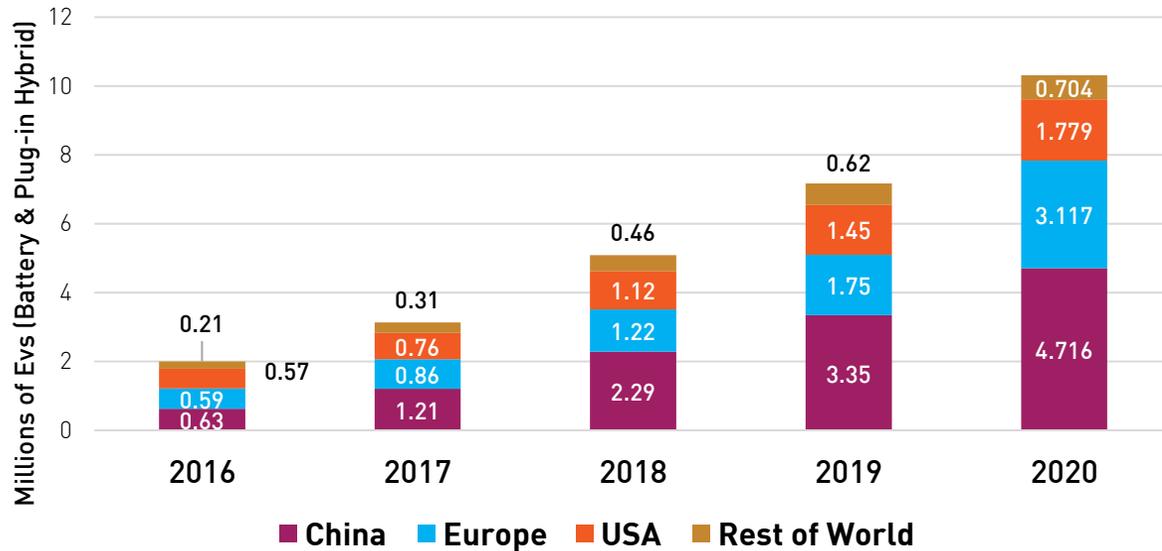
Sources: SNE Research as of July 2022.

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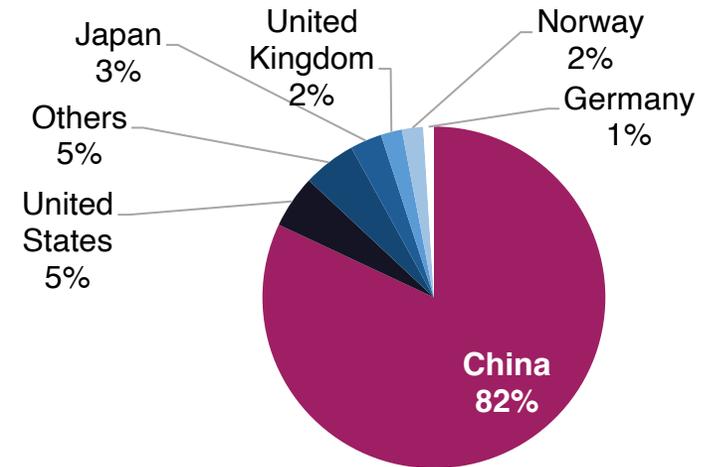
China leads global adoption of Electric Vehicles

- China is the world’s largest electric vehicle (EV) market and around 1.4 million EVs were sold in the country in 2020, accounting for over 40% of EVs sold worldwide.²
- As of the end of 2020, China had 807,000 charging stations³ compared to only 97,000 in the US.⁴
- The Chinese government has extended its subsidy program for new energy vehicles, one of the most generous and comprehensive in the world, through 2022 .⁵

Number of Electric Vehicles Globally in Millions ⁶



Global Stock of Publicly Accessible Fast Chargers¹



1. Data from International Energy Agency (IEA) as of 30/Jun/2022.
2. Source: Evolumes.com, CLSA , Macquarie, IEA.
3. Data from Statista as of 30/Jun/2022. Only includes public stations.
4. Data from Statista as of 30/Jun/2022. Includes both public and private stations.
5. "Policy Update: China announced 2020-2022 subsidies for new energy vehicles," International Council on Clean Transportation (ICCT). July, 2020. Retrieved 30/Jun/2022.
6. Data from Statista, Evolumes.com, CLSA, Macquarie, IEA as of 30/Jun/2022.

Top Electric Vehicles (EVs) of 2022: BYD's EVs and Plug-in Hybrids Lead the Way

Top Global Electric Models Sold in 2022	# Sold in 2022
Tesla Model Y	771,300
BYD Song Plus (BEV + PHEV (Plug in Hybrid EV))	477,090
Tesla Model 3	476,340
Wuling Hong Guang MINI EV	424,030
BYD Qin Plus (BEV + PHEV)	315,240
BYD Han (BEV + PHEV)	273,320
BYD Dolphin	205,240
BYD Yuan Plus (aka Atto 3)	201,740
Volkswagen ID.4	174,090
BYD Tang (BEV + PHEV)	151,150
Tesla Model Y	771,300
BYD Song Plus (BEV + PHEV (Plug in Hybrid EV))	477,090
Tesla Model 3	476,340
Wuling Hong Guang MINI EV	424,030
BYD Qin Plus (BEV + PHEV)	315,240
BYD Han (BEV + PHEV)	273,320
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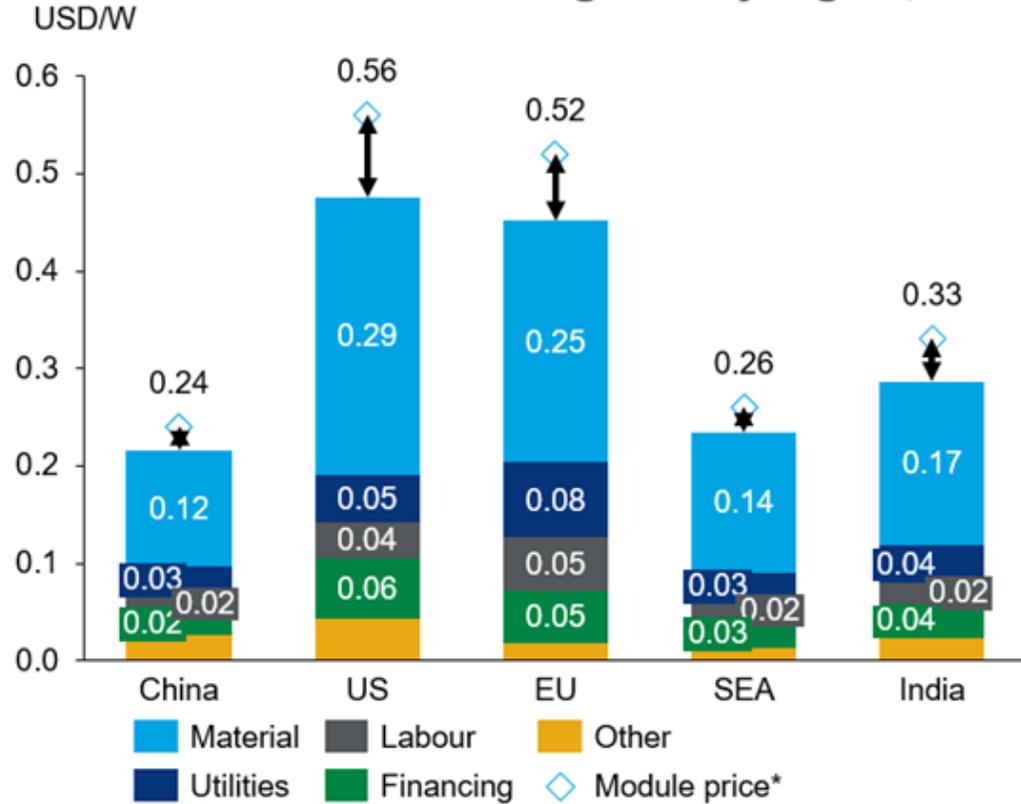
Data from EVVolumes.com as of 6/30/2023

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China Solar Cost Leadership

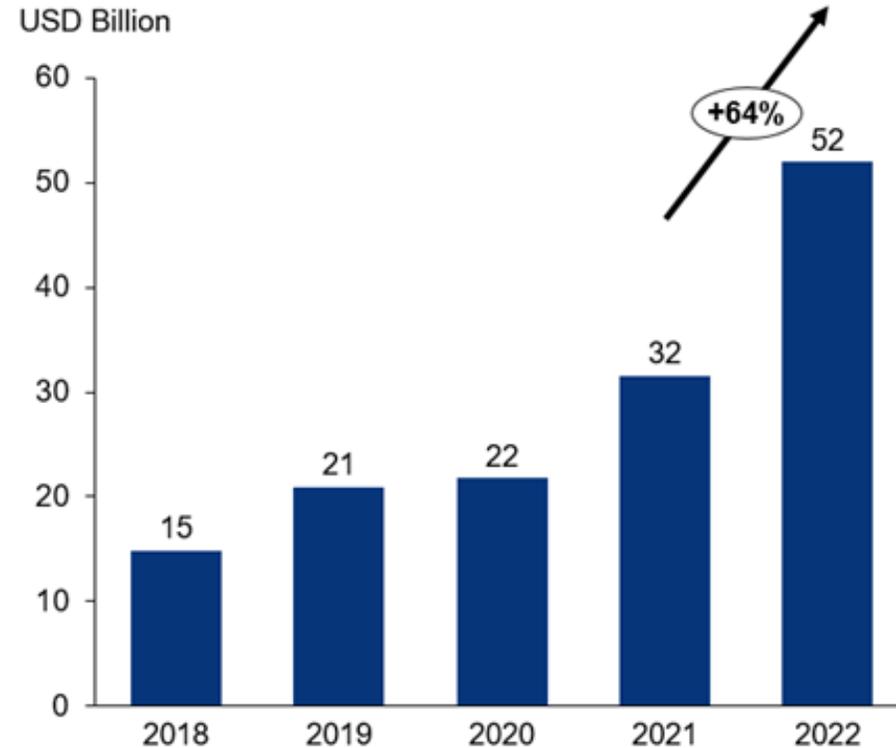
China's Solar Industry Holds Competitive Edge Through Economy of Scale and Abundant Skilled Labor

Local module manufacturing cost by region, 2022



Note: Fully domestic manufactured module consumed locally

China PV export revenue, 2018–2022



Sources: Wood Mackenzie

China's Tech Leadership in Clean Tech

VW-Xpeng Deal Is Evidence of China's Growing EV Dominance

- German auto giant to invest \$700 million in Chinese upstart
- Xpeng shares surge in Hong Kong as investors welcome tie-up

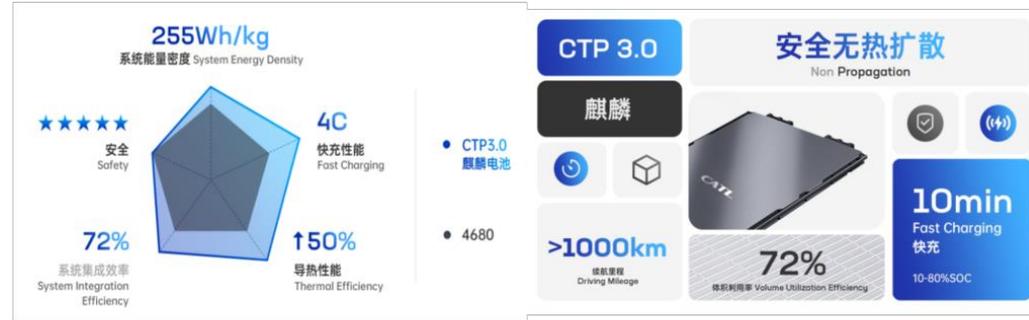


An XPeng G6 electric SUV at the Shanghai Auto Show in April. Photographer: Qilai Shen/Bloomberg

Sources:

CATL's long range new battery

CATL's Qilin vs Tesla's 4680



Source: CATL

Longi claims world's highest efficiency for silicon solar cells



Sources: PV-magazine as of 11/21/2022. Photo: Longi

MSCI China Clean Tech vs MSCI China Index performance



Name	1 Yr Return	3 Yrs Annualized Return	5 Yrs Annualized Return
MSCI China Clean Tech	-15.8%	5.1%	8.7%
MSCI China Index	2.0%	-9.8%	-2.7%

MSCI China IMI Environment 10/40 Index (MSCI China Clean Tech) is designed to measure the performance of securities with country of classification as China comprising of large, mid and small market cap segments. The Index is comprised of securities that derive at least 50% of their revenues from environmentally beneficial products and services. The Index is based on five Environmental Impact themes: Alternative Energy, Sustainable Water, Green Building, Pollution Prevention and Energy Efficiency. The MSCI China IMI Environment 10/40 Index was launched on Aug 23, 2017.

MSCI China Index: The MSCI China Index captures large and mid cap representation across China A shares, H shares, B shares, Red chips, P chips and foreign listings (e.g. ADRs). Index was launched on Oct 31, 1995. Index performance returns do not reflect any management fees, transaction costs or expenses. Indexes are unmanaged and one cannot invest directly in an index. Past performance is no guarantee of future results.

Why the market has been bearish on China Clean Tech?

Geopolitical Tensions?

Geopolitical issues, such as trade disputes or tensions between China and other countries, can impact investor sentiment and create uncertainties in the clean tech market.

Oversupply and Price Pressure?

Oversupply of clean tech products or technologies, leading to price pressure and reduced profit margins for companies.

Macro/Beta?

The macro environment and the performance of the broad Chinese equity market have an impact on the China clean tech sector

Conclusion

- Global energy transition drives soaring demand for clean technology solutions.
- China emerges as a clean tech leader in electrification and renewables.
- China's clean tech industry gains a competitive edge in technology and cost-efficiency.
- Market uncertainties arise from trade disputes and China's macroeconomic environment, impacting valuations.
- We believe China's clean tech sector presents promising long-term growth opportunities.

Follow Up Questions?

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Important Notes

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Risk Disclosures:

Investing involves risk, including possible loss of principal. There can be no assurance that a Fund will achieve its stated objectives. Indices are unmanaged and do not include the effect of fees. One cannot invest directly in an index.

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The Fund may invest in derivatives, which are often more volatile than other investments and may magnify the Fund's gains or losses. A derivative (i.e., futures/forward contracts, swaps, and options) is a contract that derives its value from the performance of an underlying asset. The primary risk of derivatives is that changes in the asset's market value and the derivative may not be proportionate, and some derivatives can have the potential for unlimited losses. Derivatives are also subject to liquidity and counterparty risk. The Fund is subject to liquidity risk, meaning that certain investments may become difficult to purchase or sell at a reasonable time and price. If a transaction for these securities is large, it may not be possible to initiate, which may cause the Fund to suffer losses. Counterparty risk is the risk of loss in the event that the counterparty to an agreement fails to make required payments or otherwise comply with the terms of the derivative.

Risk Disclosures Continued:

The ability of the Fund to achieve its respective investment objectives is dependent, in part, on the continuous availability of A Shares and the ability to obtain, if necessary, additional A Shares quota. If the Fund is unable to obtain sufficient exposure to limited availability of A Share quota, the Fund could seek exposure to the component securities of the Underlying Index by investment in other types of securities. The Fund is subject to political, social or economic instability within China which may cause decline in value. Emerging markets involve heightened risk related to the same factors as well as increase volatility and lower trading volume. Fluctuations in currency of foreign countries may have an adverse effect to domestic currency values. The Fund may underperform other similar funds that do not consider conscious company/ESG guidelines when making investment decisions. The Fund may invest in Initial Public Offerings (IPOs). Securities issued in IPOs have no trading history, and information about the companies may be available for very limited periods. In addition, the prices of securities sold in IPOs may be highly volatile. In addition, as the Fund increases in size, the impact of IPOs on the Fund's performance will generally decrease.

Narrowly focused investments typically exhibit higher volatility. The Fund's assets are expected to be concentrated in a sector, industry, market, or group of concentrations to the extent that the Underlying Index has such concentrations. The securities or futures in that concentration could react similarly to market developments. Thus, the Fund is subject to loss due to adverse occurrences that affect that concentration. In addition to the normal risks associated with investing, investments in smaller companies typically exhibit higher volatility. KGRN is non-diversified.

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