

## J&A Capital Markets Report

# Renewable Energy: Market Overview

November 2022

Renewable energy is a rising sector and firms within the industry have experienced a 233% increase in capital raised between 2011 and 2021. With the continued focus on combating climate change and the transition to renewable energy, firms in the sector will continue to rise in importance within global capital markets.

This report provides a market overview of renewable energy from 2010 - 2022 and market size based on region and type of clean energy in 2020.

### AUTHORS

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# Renewable Energy

## RENEWABLE ENERGY MARKET SECTORS IN 2020



FUEL  
CELLS



SOLAR  
ENERGY



ONSHORE  
WIND



OFFSHORE  
WIND



BATTERIES

## MARKET SIZE

\$1

BILLION

\$31

BILLION

\$51

BILLION

\$14

BILLION

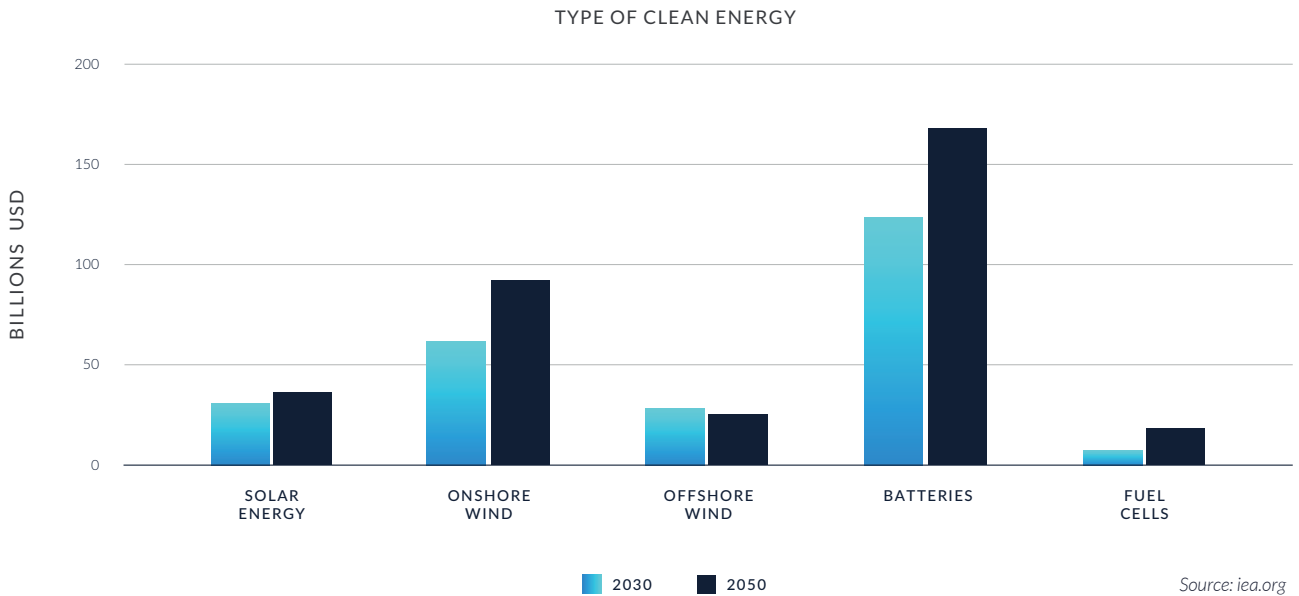
\$26

BILLION

Source: iea.org

- The renewable energy sector may be placed into 4 key sectors; solar energy, wind energy, fuel cells and batteries.
- Wind energy is divided into two sections, onshore and offshore energy this is generated through wind turbines. Onshore wind achieved the largest market size in the renewable energy sector in 2020. The total market size was estimated at \$51 billion. The offshore wind is another major industry within renewable energy with a market industry is approximately \$14 billion.
- Solar energy involves the conversion of light into energy and involves photovoltaic panels. Solar energy is the second largest market within the sector with an estimated value of \$31 billion.
- Batteries are a source of electrical power that stores and converts chemical energy to electrical energy. Batteries are a rapidly growing segment of the renewable energy market with a global estimated market value of \$26 billion in 2020.
- Fuel cells help store electricity that is produced by renewable sources such as solar energy, onshore or offshore wind, and other renewable energy technologies.

## Forecasted Market Size for Renewable Technologies

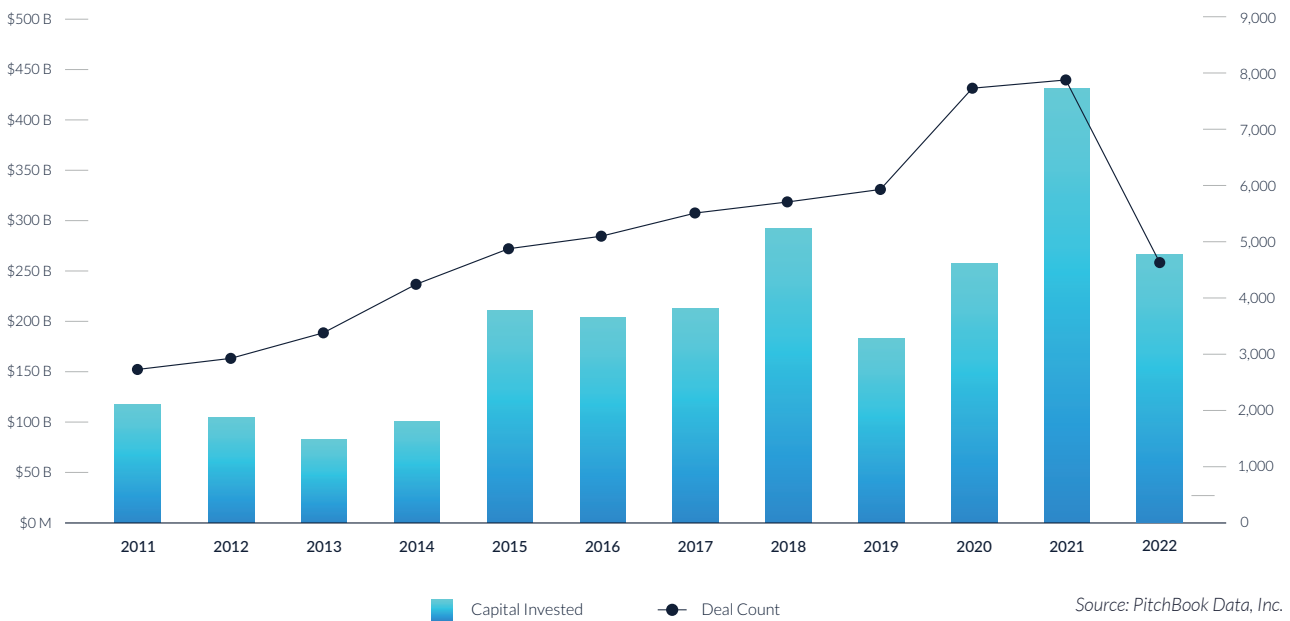


- The battery segment is forecast to have the highest market size for clean energy technologies with \$123 billion in 2030 and \$169 billion in 2050, with \$123 billion in 2030 and \$169 billion in 2050. The market increase between the years 2030 and 2050 for batteries is forecast to be 37%.
- The onshore wind segment is forecasting significant growth between 2030 and 2050. The sector is expected to increase by 37% while offshore wind is forecast to decreasing by around 8%.



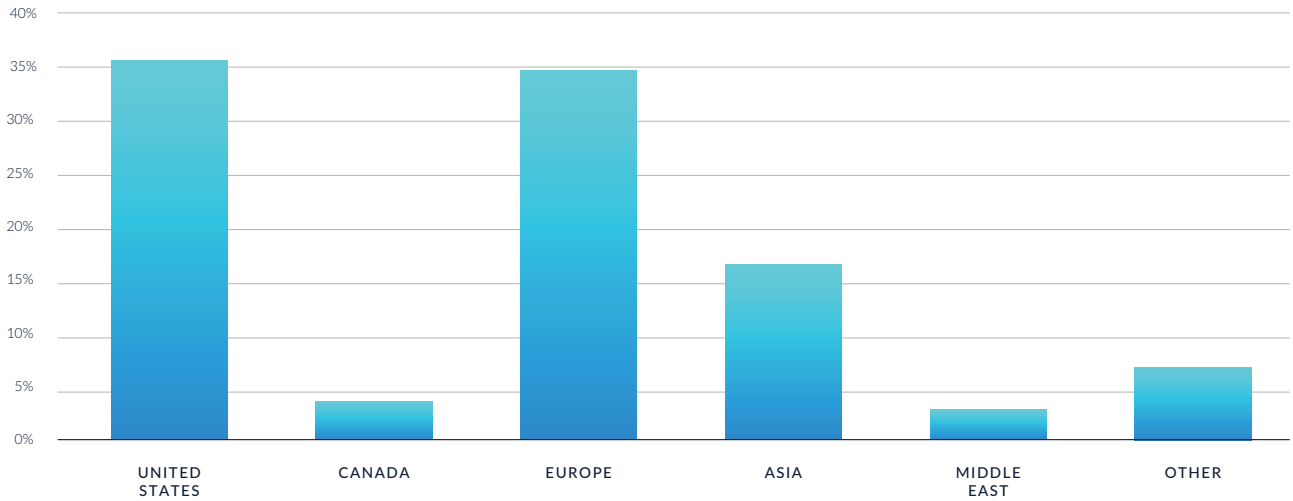
# Renewable Energy: Market Breakdown

## Announced Renewable Energy Capital Markets Deals (2010 – 2020)



- Renewable energy experienced an increase in capital market activity in 2021 with \$429 billion invested across the sector. A total of 7,863 transactions occurred in the sector with an average deal size of approximately \$54 million.
- The trend shows that investments in renewable energy capital market deals are rising, hence, suggesting an increase in investments more into this sector.
- 2022’s data refers to the first 9 months of the year and 4,654 deals have been conducted with a total of \$265 billion invested.

## Capital Invested in 2022 (Q1 - Q3) by Region



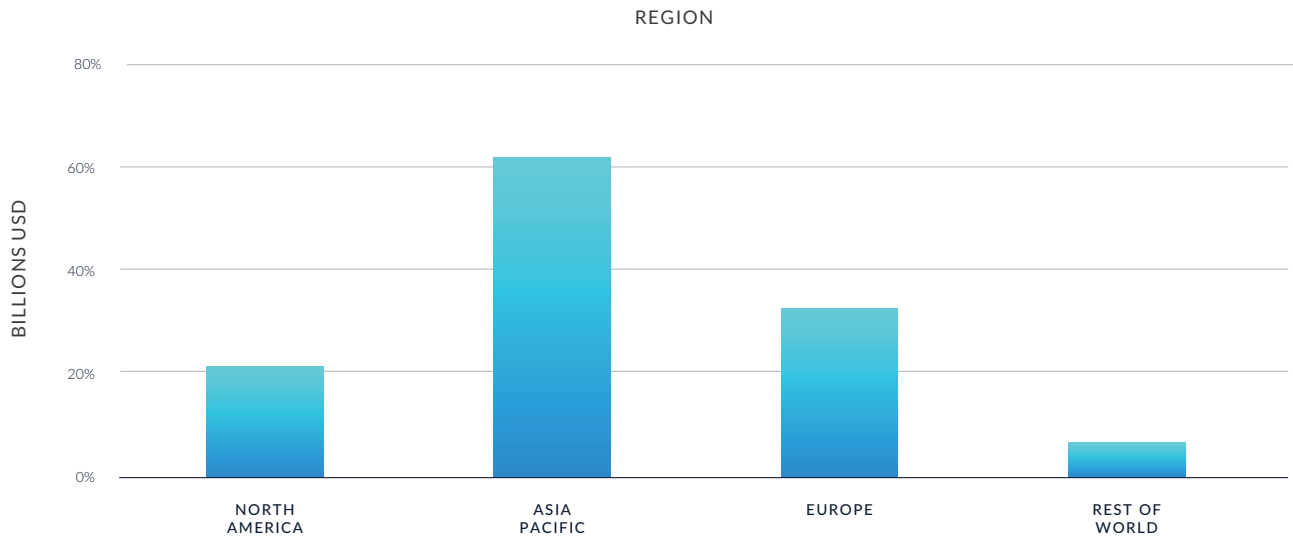
Source: PitchBook Data, Inc.

- Renewable energy firms from the USA have received the largest capital in the first three quarters of 2022 with 35% invested into the sector.
- Europe received the second largest capital deployment in the sector with renewable energy firms on the continent raising 34% of capital invested in the sector.
- Asian, Canadian, and Middle Eastern renewable energy companies have received 16%, 4% and 3% of capital in the sector in 2022 respectively.





## Market Size for Renewable Energy By Region in 2020

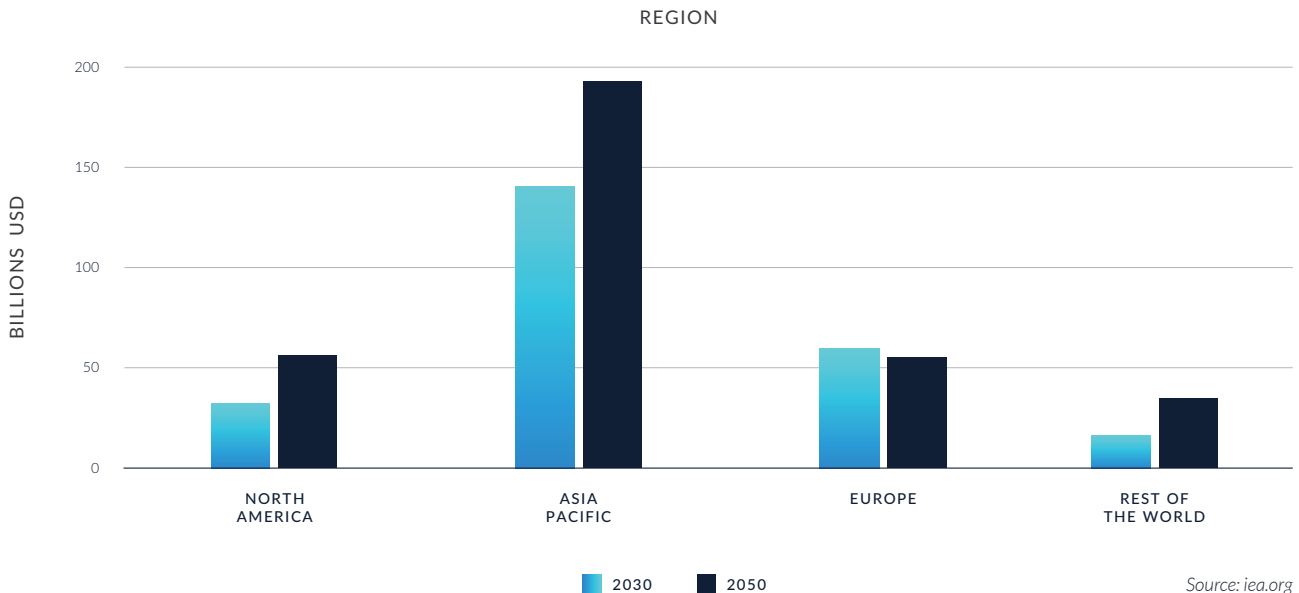


Source: [iea.org](https://www.iea.org)

- In 2022 the Asia Pacific region shows a market size of \$62 billion dollars conveying that they have the largest market size for clean energy.
- Asia is seen to have the largest market size for clean energy due to the large value made toward the sector compared to other regions.
- Europe's market size is USD33 billion making their value about half of Asia's which emphasizes the high market size of clean energy investments in Asia.



## Forecasted Market Size for Renewable Technology By Region



- In 2030 and 2050 Asia Pacific is still estimated to hold the highest market share for clean energy based on the stated policies scenario.
- Asia Pacific is predicted to increase by 36.6% in market size from USD142 billion in 2030 to USD194 billion in 2050.
- Moreover, Asia Pacific has the highest percentage increase compared to other regions' 2030 and 2050 numbers.

Renewable energy is growing rapidly especially in Asia Pacific. According to forecasts, Asia Pacific is expected to invest the most money into renewable energy and driving growth within the sector. Onshore wind had the higher market size in 2020 but the emergence of lithium batteries will drive the renewable energy sector. J&A forecasts continued growth within the renewable energy sector.