The Future of Global Solar Fasteners Market in the CBAM Era

Definition of Carbon Border Adjustment Mechanism Era

The Carbon Border Adjustment Mechanism (CBAM), also known as the EU carbon border tax, is a policy that will impose a carbon price on imports of goods into the European Union. This is expected to have a significant impact on the solar fasteners market, as it will make it more expensive to import fasteners from countries with less stringent environmental regulations.

Market Trends

The global solar fasteners market is expected to reach a value of USD 3.2 billion by 2027, growing at a CAGR of 12.4% from 2022 to 2027. This growth is being driven by the increasing adoption of solar energy worldwide, as well as the need for high-quality fasteners to ensure the durability and performance of solar panels. The global solar fasteners market is characterized by a number of key trends, including:

- **Focus on quality and durability:** Solar fasteners must be able to withstand the harsh environmental conditions in which they are installed. This is driving the demand for high-quality fasteners that are made from durable materials and can resist corrosion.
- **Need for standardization:** There is a need for standardization in the solar fasteners market to ensure that fasteners are compatible with different types of solar panels.
- **Growing adoption of smart fasteners:** Smart fasteners are equipped with sensors that can monitor the performance of solar panels and detect potential problems. This is expected to drive the demand for smart fasteners in the future.

Increasing Demand for Solar Energy and Impact of CBAM

Solar energy is one of the fastest-growing renewable energy sources in the world. This is driving the demand for solar fasteners, as they are essential components of solar panels. **The CBAM is expected to have a significant impact on the global solar fasteners market, as it will make it more expensive to import fasteners from countries with less stringent environmental regulations. This is likely to lead to increased demand for fasteners made in countries with stricter environmental regulations.**

Countries with Lower Environmental Regulations[1]

In the global landscape of solar energy production, various countries are navigating the potential implications of the Carbon Border Adjustment Mechanism (CBAM) proposed by the European Union. Here's a snapshot of key players with lower environmental regulations that CBAM may have negative impact on their solar fasteners export:

- **China:** China's solar photovoltaic market has grown dramatically during the last decade. The country has made enormous efforts to expand its solar capacity, which increased from only 4.2 gigawatts in 2012 to over 390 gigawatts in 2022. China is by far the leading solar market worldwide, accounting for most of the cumulative solar capacity installed globally, as well as new capacity additions. China's solar capacity is projected to continue expanding in the next years, with forecast new installations ranging from 390 to 569 gigawatts between 2022 and 2026. In 2021, China's solar PV exports exceeded

USD 30 billion, underscoring its prominence as a leading producer of solar panels and fasteners with a robust manufacturing base.

- **India:** Electricity generation in the solar energy market was projected to amount to 39.95bn KWh in 2023. An annual growth rate of 7.13% is expected (CAGR 2023-2028). In 2021, the India solar energy market reached an estimated value of USD 38 billion.

- **Brazil:** Electricity generation in the solar energy market was projected to amount to 6.20bn KWh in 2023. An annual growth rate of 2.72% is expected (CAGR 2023-2028).
- **Vietnam:** The Vietnam solar energy market was estimated to be at 18.4 gigawatt (GW) by the end of 2023 and is projected to reach 20.4 gigawatt (GW) after five years, registering a CAGR of over 2.1% during the forecast period.
- **Thailand:** Electricity generation in the solar energy market was projected to amount to 4.47bn KWh in 2023. An annual growth rate of 3.74% is expected (CAGR 2023-2028).
- **Malaysia:** Electricity generation in the solar energy market was projected to amount to 0.81bn KWh in 2023. An annual growth rate of 4.92% is expected (CAGR 2023-2028).
- **Mexico:** The Mexico solar photovoltaic market size in terms of installed base is expected to grow from 9.80 gigawatt in 2023 to 15.01 gigawatt by 2028, at a CAGR of 8.91% during the forecast period (2023-2028).
- **South Africa:** The South Africa solar energy market size was estimated at 6.04 gigawatt in 2023, and is expected to reach 9.98 gigawatt by 2028, growing at a CAGR of 10.56% during the forecast period (2023-2028).
- **Saudi Arabia:** Electricity generation in the solar energy market was projected to amount to 0.26bn KWh in 2023. An annual growth rate of 2.90% is expected (CAGR 2023-2028).

Key Players with Higher Environmental Regulations and Potential Impact of CBAM

- **Germany:** Electricity generation in the solar energy market was projected to amount to 53.91bn KWh in 2023. An annual growth rate of 2.28% is expected (CAGR 2023-2028).
- **Japan:** Japan's flexible solar panel market size was valued at USD 768 Million in 2022 and is projected to reach USD 1423.85 Million by 2031, growing at a CAGR of 7.1% from 2022 to 2031 according to a new report by IMIR Market Research. Electricity generation in the solar energy market was projected to amount to 65.93bn KWh in 2023.
- **Taiwan:** The cumulative installed capacity for solar PV in Taiwan was 9,723.8 MW in 2022. It is expected to achieve a CAGR of more than 12% during 2022-2035.
- **UK:** Electricity generation in the solar energy market was projected to amount to 11.41bn KWh in 2023. An annual growth rate of 2.34% is expected (CAGR 2023-2028).
- **USA:** The U.S. solar PV market size was estimated at USD 29.68 billion in 2022 and was expected to reach USD 96.63 billion in 2023. Solar is becoming an increasingly important energy resource in the United States. In the last decade, solar has grown with an average annual rate of 24 percent, reaching a capacity of over 110 gigawatts in 2022.

Future Outlook[2]

The future of the global solar fasteners market is bright. The increasing adoption of solar energy worldwide, as well as the need for high-quality fasteners to ensure the durability and performance of solar panels, will drive the growth of the market in the coming years. The CBAM is also expected to have a positive impact on the market, as it will make it more expensive to import fasteners from countries with less stringent environmental regulations. This is likely to lead to increased demand for fasteners made in countries with stricter environmental regulations.

Overall, the global solar fasteners market is expected to grow at a strong CAGR in the coming years. The increasing adoption of solar energy, the need for high-quality fasteners, and the impact of the CBAM will all contribute to the growth of the market. ■

Source:

[1]https://www.mordorintelligence.com/industry-reports/ &
https://www.statista.com/outlook/io/energy/renewable-energy/solar-energy
[2]https://www.mordorintelligence.com/industry-reports/ &
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