

Going.... Going **GONE GREEN**

**How 3PLs Support the Future of
Renewable Energy**

A WHITE PAPER POWERED BY



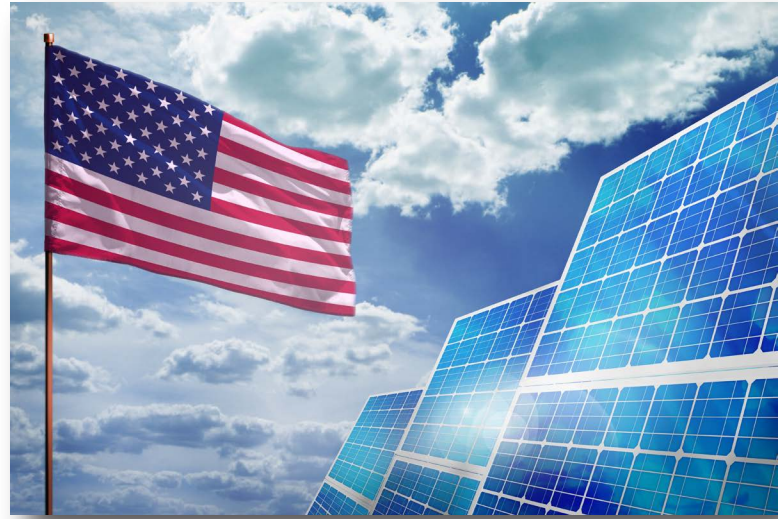
**Evans
Distribution
Systems**

The U.S. placed a strong focus on renewable energy

in recent years to increase energy security by reducing energy imports. Renewable energy also reduces carbon dioxide emissions and greenhouse gases which is vitally important to preventing climate change.

According to the U.S. Department of Energy, “in 2022, solar and wind added more than 60% of the utility-scale generating capacity to the U.S. power grid (46% from solar, 17% from wind).” The same source reported that the available renewable energy is 100 times more than what is required by current energy use.

President Biden’s bipartisan infrastructure law, Investing in America, has many goals associated with clean energy. In fact, the agenda sets aside \$22.2 billion in grants, rebates, and other initiatives to accelerate clean energy, clean buildings, and clean manufacturing. He also set aside \$8.8 billion in residential energy rebates for homeowners who weatherize and upgrade to energy-friendly appliances.



One important effort toward transitioning to clean energy is to replace traditional fossil fuels such as coal, petroleum, and natural gas, with renewable energy sources like solar and wind power. According to the U.S. Energy Information Association, “2022 solar photovoltaic panel shipments in the United States increased 10% from 2021, setting another annual record (31.7 million peak kilowatts [kWp]).”



In 2022, the U.S. government introduced a tariff exemption



on solar panels originating from Vietnam, Cambodia, Malaysia, and Thailand. The 24-month exemption is directly related to meeting the rising demand of solar energy across the U.S. These countries are positioning themselves as leading exporters of solar energy manufacturing worldwide. In 2020, Vietnam's solar panel exports totaled \$3.4 billion to the U.S.; \$91 million to Canada; and \$57.8 million the EU.

A strong global supply chain is critical to bringing cost effective solar panels to the U.S. This allows solar energy to be more accessible and have a widespread impact on many regions/communities.

Michigan Goes Solar

Michigan ranks 23rd for total installed solar capacity. Growth projections over the next 5 years point to 3,375 megawatts of solar energy. Currently, Michigan has enough solar capacity to power 223,888 homes. There are a total of 216 solar companies operating in Michigan. The state solar market is valued at \$1.6 billion. All in all, Michigan has made strides but has room for improvement compared to other states.

As we move toward this clean energy future, our work is cut out. Energy companies are leading the way with large scale investments in solar farms. Detroit-based diversified energy company, DTE, is developing one of the largest solar panel footprints in the state. According to the corporate website: "By 2023, DTE plans to increase solar generation by nearly ten times, generating clean energy from 2.2 million additional solar panels. By 2040, the portfolio will include more than 11 million solar panels." DTE's Lapeer Solar Park is home to 200,000 solar panels located on 250 acres. The park generates enough solar energy to power 11,000 homes.

Companies like DTE are taking full advantage of the government exemptions and tax incentives for moving coal plants to solar grids. This has created an influx of Asian solar panels flooding into the U.S. However, transporting solar panels from Vietnam to Michigan requires a qualified and experienced 3PL partner like Evans Distribution Systems.



Unique Requirements of Solar Panels

- Like any overseas import, solar panels often have unpredictable delivery schedules. Flexible drayage support is needed to pick up containers as soon as they arrive at the yard.
- Solar panels are shipped in high cube containers that are packed tightly to reduce damage related to shifting in transport.
- An experienced drayage partner is required for ensuring panels arrive in good condition. Solar panels are prone to damage and have unique packaging requirements.
- Solar panels may require inspection creating a need for a dark room within a qualified storage facility.
- Ultra delicate handling both coming on and off the truck and while in storage is essential.
- Solar panels often require specialized equipment and oversized or heavy duty, component management. Material handling equipment should have the proper load capacity based on packaging requirements.
- Site permitting can be a long and unpredictable process which requires flexible storage solutions that can scale up or down quickly.
- Large scale energy projects require additional square footage for the storage and replacement of damaged panels.



The solar energy industry is only continuing to grow.

The industry is expected to nearly triple in the next five years. According to the U.S. Solar Market Insight Report Q3 2023, the U.S. is expected to add 32 gigawatts of new capacity in 2023, up from a 52% increase since last year. Clean energy goals are dependent on an efficient supply chain and a knowledgeable 3PL to ensure that solar panels are protected as they are transported from overseas to the installation site.

Are you looking for a 3PL partner to store and transport your solar panels or solar panel components? Contact Evans for a quote or call 1-800-OK-EVANS.





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