



# We Need More than NZIA

**Anja Lange**

Senior Vice President, Head of Europe

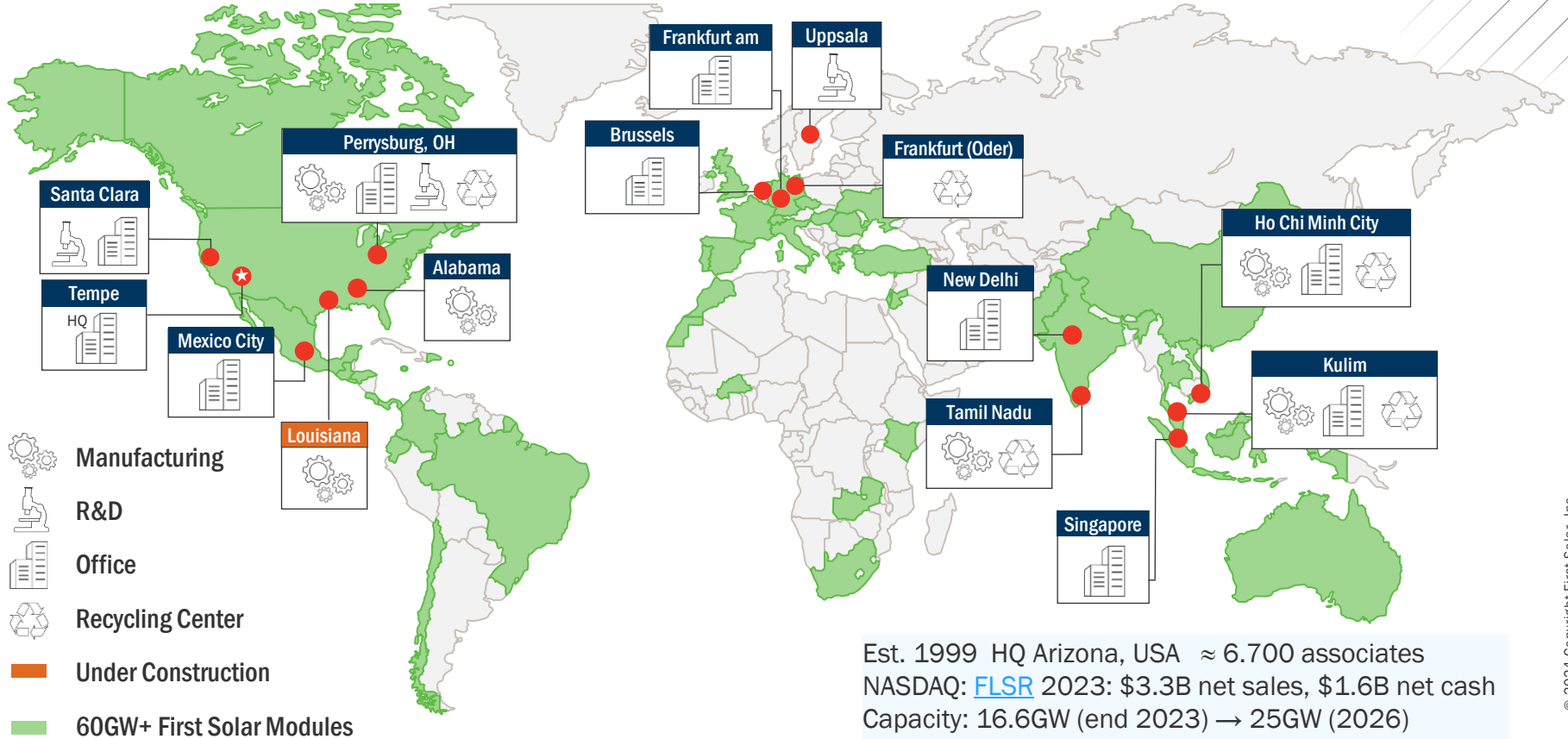
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LEADING THE WORLD'S  
SUSTAINABLE ENERGY FUTURE



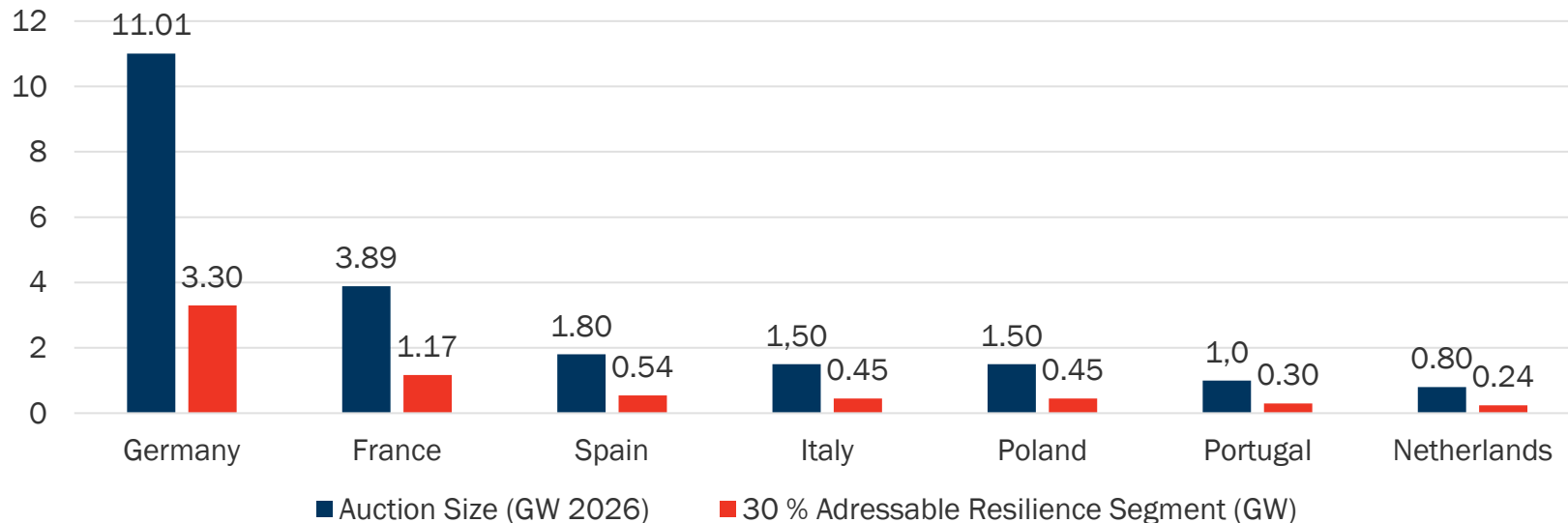
# First Solar Across the Globe



Est. 1999 HQ Arizona, USA ≈ 6.700 associates  
 NASDAQ: [FLSR](#) 2023: \$3.3B net sales, \$1.6B net cash  
 Capacity: 16.6GW (end 2023) → 25GW (2026)  
 Q1 2024: sales backlog of 78.3GW

# Impact of NZIA: Estimated Auction Market Size in Top 7 EU countries | 2026

Projected 2026 Auction Size In Top 7 EU Countries | 21.5 GW

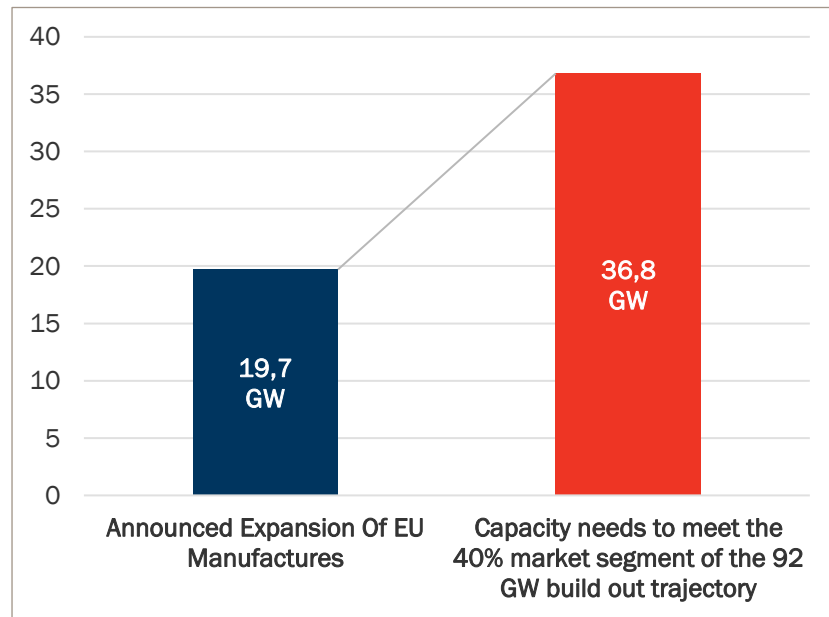
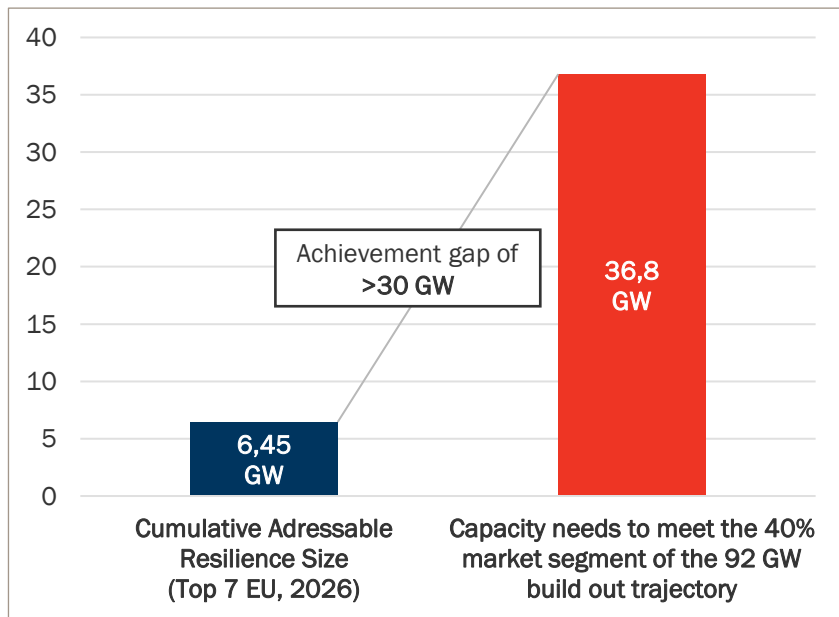


Estimated auction size in 7 selected EU countries : 21.5 GW – with 6.4 GW opportunity in the resilience segment (30%)

Note : The projected Auction market size are for utility scale (ground-mount installations only)

Source : Various industry reports and existing auction program (detailed sources available upon request)

# Achievement gap to reach NZIA commitments with the announced capacities by 2030



- Even if a maximum of 30% of the auction volume is reserved for non-financial criteria in Europe's largest PV markets, the NZIA will not be able to unlock the desired manufacturing capacity pursuant to the NZIA.
- ~70% of announced projects (19,7 GW) has not reached Final Investment Decision: EU's policy framework falls short in providing adequate incentives to unlock investments in new capacities.

# Robust Methods for Effective Non-Financial Criteria in NZIA

## Carbon Footprint

- Compliance to French tender system / Global ecolabel EPEAT
  - Methods ensuring a **kilowatt peak assessment, only country grid**, and strict and transparent control over verifiers and certificates for credibility
- [Recommendations by the European Solar PV Industry Alliance \(ESIA\)](#) offers an in-depth analysis.

## Responsible Business Conduct

- **Forced Labor as pre-qualification** neither jeopardizes sufficient module supply for reaching EU PV build-out targets nor creates a significant cost premium.
- **Zero allegations** to forced labor in PV supply chains based on [existing reports](#) (e.g. Murphy et al. 2021, 2023) and databases until the FLBR can be implemented.

## Resilience

- **Tiered approach** where EU manufacturing is rewarded with higher awards than a source of origin outside the dominant source of supply → maximum incentives for **reshoring** manufacturing capacities and adequate deployment capacity through **friend-shoring**.
- Must include subsidiary facilities to prevent circumvention practices.

## Technology Neutrality

- Supply chain component definition of the resilience criteria should be technology neutral to represent all key enabling technologies such as thin films and tandems.
- Cell/module efficiency thresholds as a non-financial criteria are **not technology neutral** and **does not reflect the overall energy performance of a module**.

# Overview of Support Schemes in Top7 EU countries



**CAPEX, OPEX :** €3 billion allocated through direct grants, tax incentives, and reduced interest rates on new loans or guarantees. This funding is aimed at supporting the production of batteries, solar panels, wind turbines, heat pumps, electrolyzers, and equipment for Carbon Capture, Utilization, and Storage (CCUS).



**CAPEX :** €2.9 billion provided through tax credits to enhance value chains tied to the energy transition, focusing on the establishment of facilities for manufacturing solar panels, wind turbines, batteries, and heat pumps.



**CAPEX :** €1.1 billion allocated as direct grants for manufacturing essential equipment, such as batteries, solar panels, wind turbines, heat pumps, and electrolyzers, to support the shift towards a net-zero economy.

**Not Specified :** €750 million in approved incentive schemes aimed at supporting the growth of the clean-tech supply chain..



**CAPEX :** €1.2 billion Polish State Aid program aimed at encouraging investment in key sectors to advance the transition towards a net-zero economy.



**CAPEX :** €750 million program offering direct grants to promote investments in decarbonizing industrial production processes, supporting the shift towards a net-zero economy.



**Not Specified :** €350 million funding package has been approved to assist companies involved in manufacturing solar panels, batteries, heat pumps, and other renewable energy equipment.



**CAPEX :** €5.7 million fund is designated for self-production and self-consumption projects using efficient, Italian-made products, financed through the National Recovery and Resilience Plan, with plans for legislative transposition.

**CAPEX, OPEX :** The to-be-approved FER X Decree (transposing RED II) will define the procedures for obtaining incentives and their corresponding values for renewable energy projects for the 2024-2028 period. The regulated incentive tariffs will be provided through direct access for small-scale power plants and competitive procedures for larger-scale installations.

## Successes and failures of developing a domestic PV industry: historic examples

Empirical evidence shows that a combination of import restrictions or tariffs along with government incentives creates the best conditions to foster a domestic solar supply chain

### Failed



#### Import constraints

- The EU's anti-dumping duties imposed on Chinese modules did not save EU manufacturing. It had the opposite effect when PV deployment slowed down significantly. Over five years of duties, there was no increase in domestic module or cell capacity.



#### Import constraints

- AD/CVD<sup>1</sup> duties on China in 2015 did not incentivise US domestic manufacturing. Chinese manufacturers finished products in SEA to export modules to the US.
- AD/CVD duties on CMTV<sup>2</sup> did expand or support US domestic manufacturing but pushed SEA suppliers to expand their supply chain.

### To be determined



#### Manufacturing incentives + import constraints under review

- NZIA and REpowerEU financing model for domestic manufacturing is based on a grant system, which makes it difficult to predict the actual cost of manufacturing.
- The EU is considering imposing import constraints that will incur costs equal to those produced domestically, providing fair competition to EU manufacturers.

### Succeeded



#### Import constraints + overseas market share incentives

- Turkey imposed import constraints on modules from China, which increased local manufacturing even though the modules made domestically are more expensive than anywhere else. However, the incentives for Turkish manufacturers are at a premium compared to the US. This could potentially help the EU if the import constraints on modules from China are imposed.



#### Import constraints + manufacturing incentives

- Import constraints, including pricing and non-pricing criteria, have created raised prices that the local US buyers have had to accept.
- Domestic manufacturing incentives reduce the cost of manufacturing to a level where the price of US-made modules will match imported modules, which will make US-made modules price competitive with SEA modules, giving local manufacturing a chance to develop and grow.



#### Import constraints + manufacturing incentives

- India introduced the Basic Customs Duty for Chinese modules and cells, which evened out the price of imported modules to Indian manufacturers' prices.
- India also introduced manufacturing incentives via the Production Linked Incentive to reduce the cost of making modules.