

STRATEGY ROADMAP

2023-2027





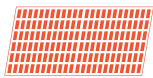


CONTENTS

5	Advantage of Solar
6	Solar in the World
7	New Era for Solar in the USA: IRA ERA
8	European Green Deal
10	Installed Power Distribution in Türkiye
12	Milestone Smart Solar Technologies
13	Bolstering Green Energy Transition with Solar Technology
14	Solar Value Chain & Planned Investments
15	Our Investment Map
16	Our Corporate Sustainability Framework
17	Net Zero Roadmap
18	Other Investments
22	Digital Transformation Roadmap

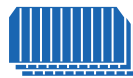


WE ARE A GLOBAL TECHNOLOGY COMPANY SUPPORTING ENERGY INNOVATION FOR A SUSTAINABLE FUTURE



3000 MW+
Solar Panel
Manufacturing Capacity

2300 MW (Existing)
+700 MW (2024 Q1)



2000 MW
Solar Cell
Manufacturing Capacity

600 MW PERC (2023 Q4)
1400 MW TOPCon (2024 Q4)



1000+ Employees
%50 Women
103 Engineer



150 MW+
Solar Power Plant
Equity Investment



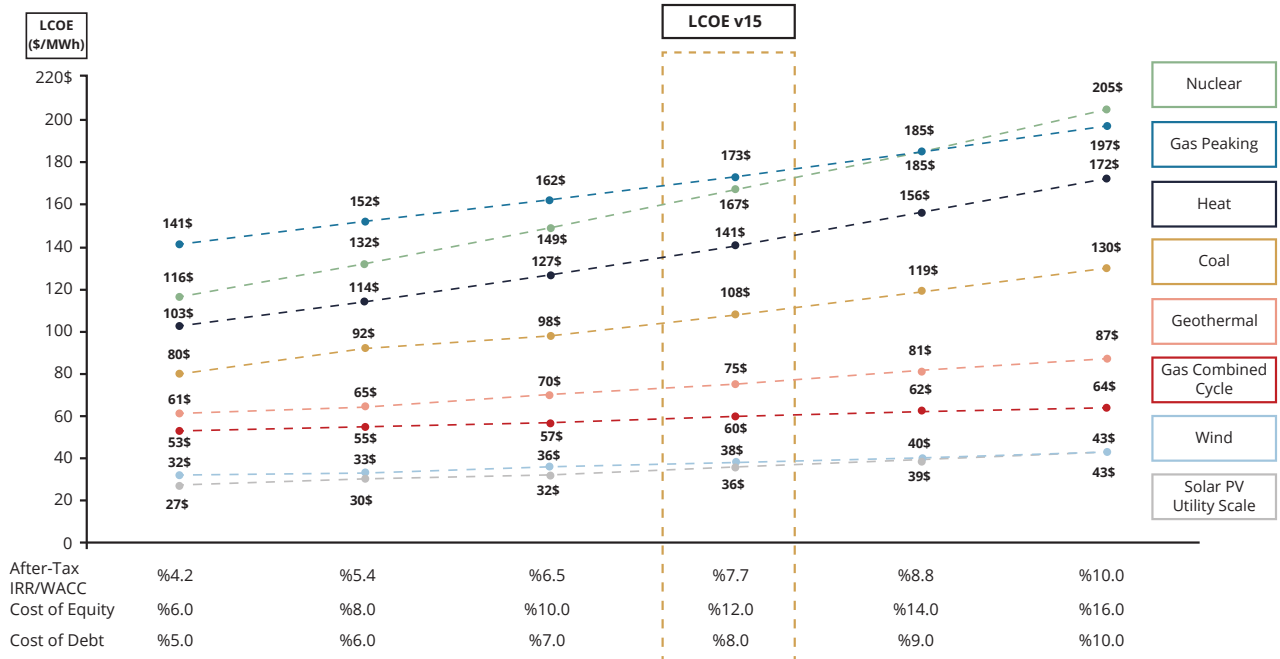
500 MW+
Engineering, Procurement
& Construction (EPC)



%95
Automated Production
With Smart Technologies

ADVANTAGE OF SOLAR

Levelized Cost of Energy as Capital Cost Sensitive Benchmarking Comparison



Source: Lazard, April 2023

1000 MW SPP
(Standard Solar Energy System)

In 10 Years
\$1.5 Billion



Contributes to Closing our country's energy-based current account deficit

Smart
SOLAR TECHNOLOGIES

With the Value Engineering Approach, this contribution
(Tracking System "Tracker" + Bi-Facial Panel "Bi-Facial")

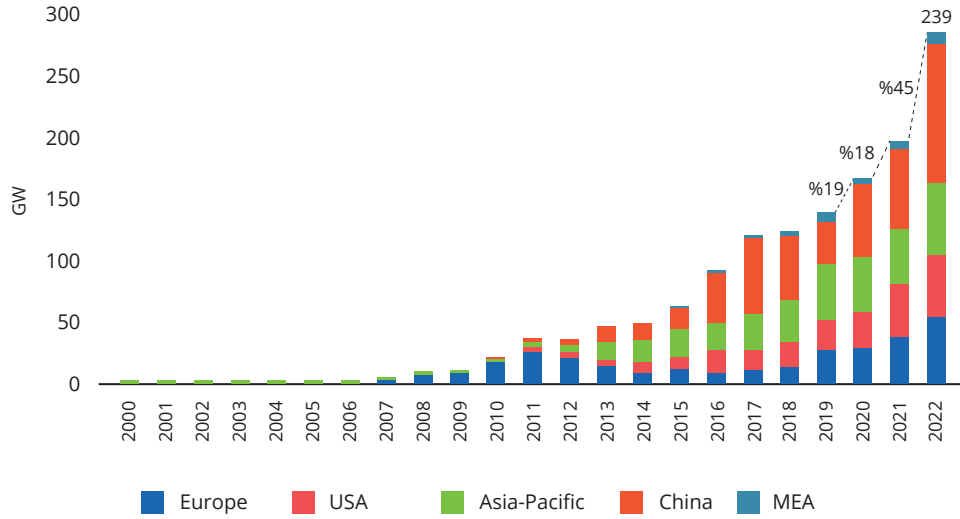
is set to reach **\$2 Billion***

*The carbon price resulting from the EU's Carbon Border Adjustment Mechanism (CBAM) is not included in the cost.



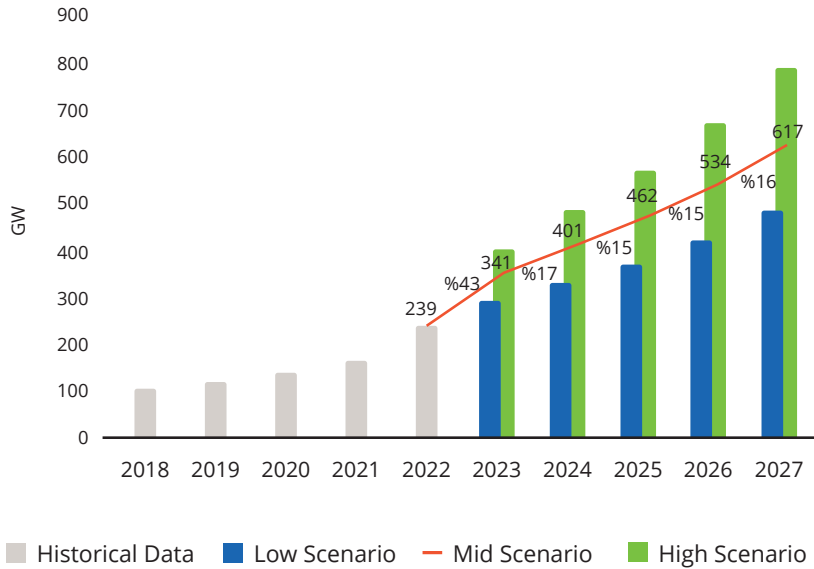
SOLAR IN THE WORLD

TOTAL INSTALLED CAPACITY

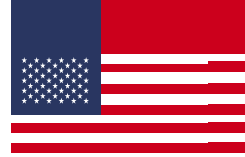


Solar is the new king of the global electricity markets.
Fatih Birol
 International Energy Agency Executive Director (IEA)

ANNUAL SOLAR PV MARKET SCENARIOS 2023-2027



Source: Global Market Outlook for Solar Power 2023-2027 Solar Power Europe 2023



NEW ERA FOR SOLAR IN THE USA: IRA* ERA

Since 20 August 2022...

More than **\$100 Billion** of private sector investment in clean energy projects.

- +51 new or expanded solar production facilities
- +85 GW solar panel capacity
- +20 GW ingot and wafer production capacity
- +14 new or expanded energy storage production capacity
- +65 GWh energy storage production capacity has been announced.

2033 Prediction

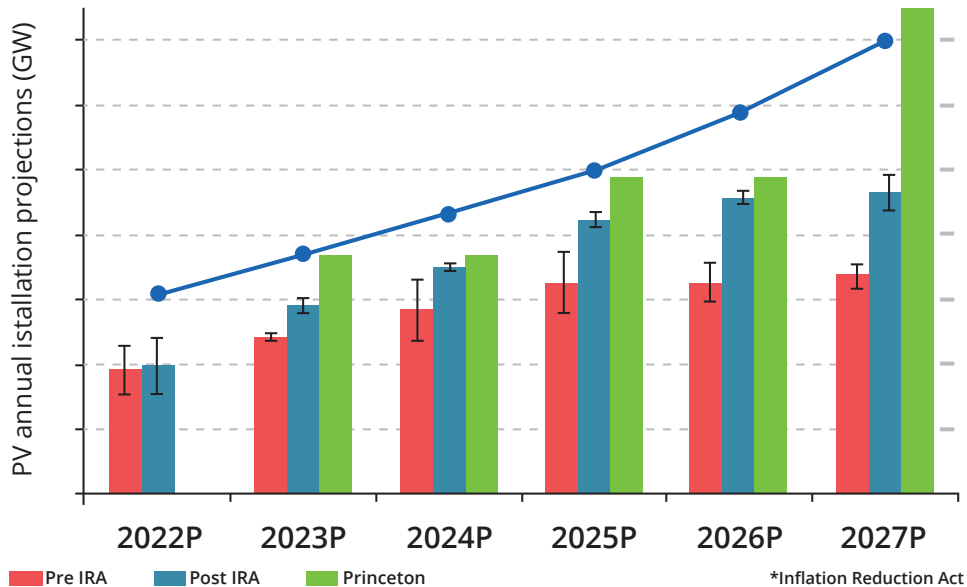
\$565 Billion private capital investments

669 GW Total Solar Energy Capacity

*IRA: INFLATION REDUCTION ACT

Source SEIA Solar Energy Industry Association

- Approximately \$369 billion is budgeted for investments in energy security and climate change,
- \$6 billion budget for production-based emission reductions,
- 27 billion will be used for emissions reductions in disadvantaged communities.



Smart SOLAR TECHNOLOGIES is a member of ULTRA LOW-CARBON SOLAR ALLIANCE since 2022!

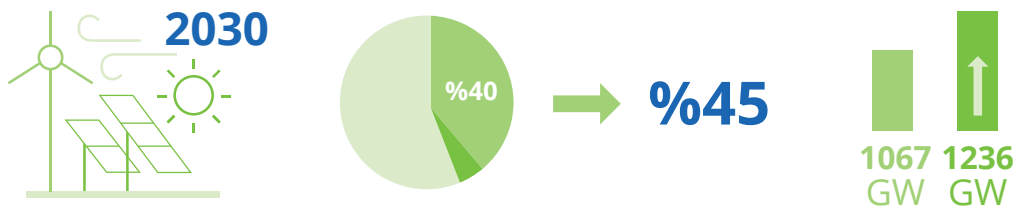


EUROPEAN GREEN DEAL

Towards a sustainable and independent future with the **REPowerEU*** strategy.



Reaching **45%**, as envisaged under **REPowerEU**, would require the EU's existing renewable energy capacity almost doubling the share of energy, and the **Fit for 55** package to increase energy efficiency by 2030. This means increasing the total renewable energy generation capacity from **1,067 GW to 1,236 GW**.



* REPowerEU Uni

** European Solar Manufacturing Council



CARBON BORDER ADJUSTMENT MECHANISM

Aiming to be the first Carbon-Neutral continent

Raising the 2030 Greenhouse Gas Emission Reduction Target (50-55%)

Review of all policy instruments

CBAM will be launched in the following sectors by October 2023.



Aluminum



Iron and Steel



Hydrogen



Electricity



Fertilizer



Cement

- By 2050, the goal of becoming the first carbon-neutral continent It has become the EU's highest priority policy area.
- By 2050, the EU will need a new growth path that requires the transformation of its industry.

THE EUROPEAN UNION AIMS TO INCREASE SOLAR PANEL PRODUCTION CAPACITY BY 2030 TO 30 GW.

EU's Current Manufacturing Status

Module

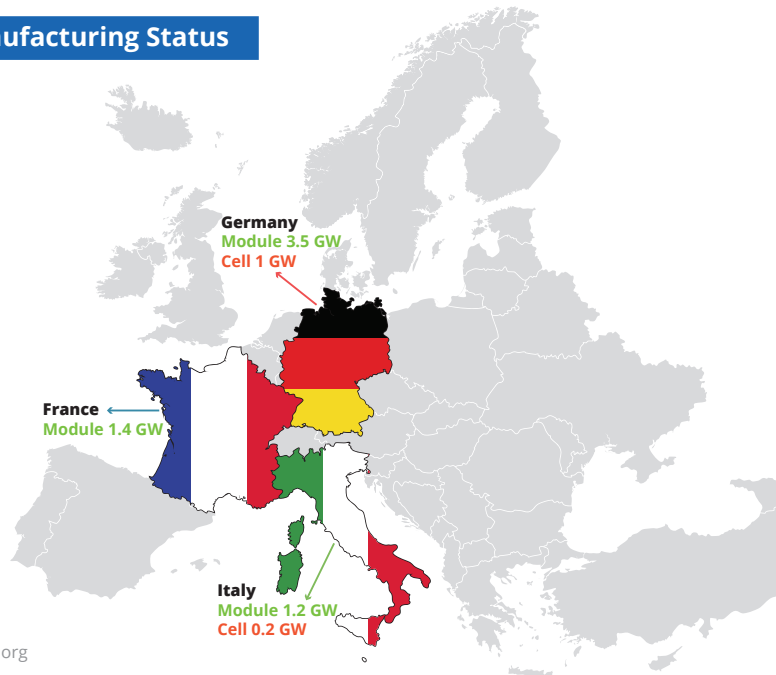
9.4 GW

Cell

1.4 GW

Ingot/Wafer

1.7 GW



Source: www.solarpowereurope.org

“ In less than three decades we have to reach net zero, but reaching net zero means developing and using a whole range of new clean technologies across our economy ”

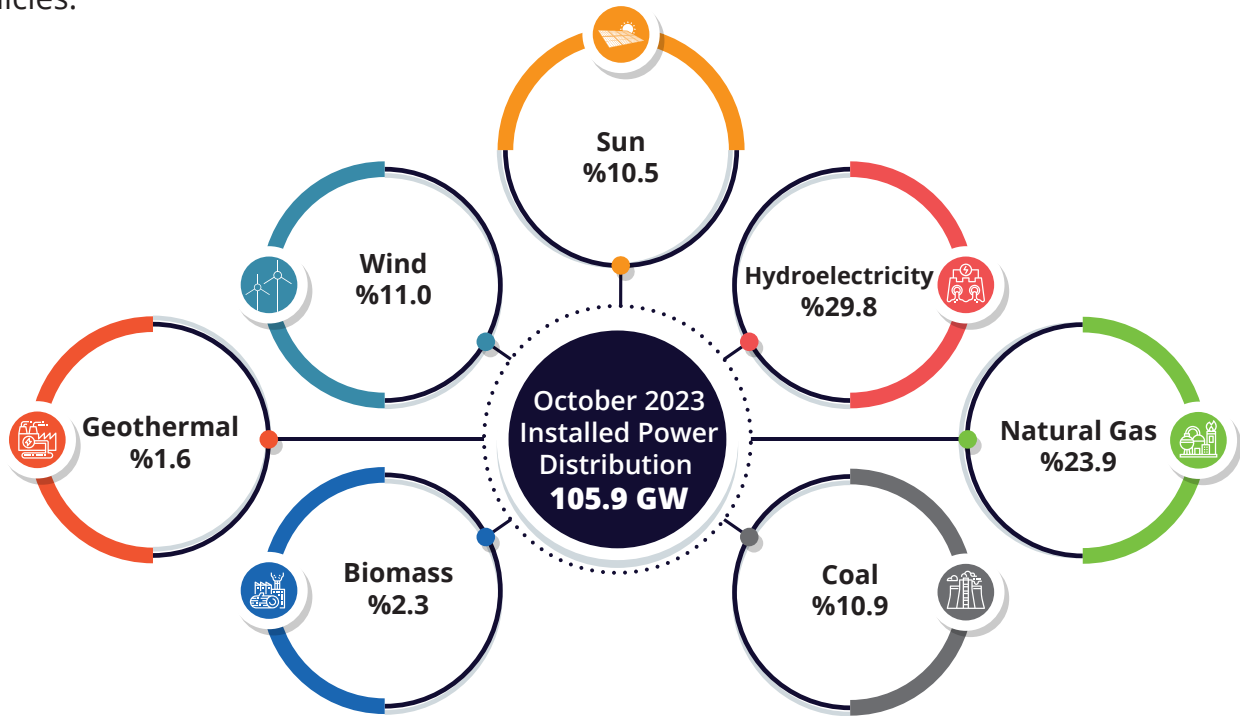
Ursula von der Leyen

President of the EU Commission, Davos 2023



INSTALLED POWER DISTRIBUTION IN TÜRKİYE

Since 2014, solar power installed capacity increased to 10.5 GW with stable investment policies.



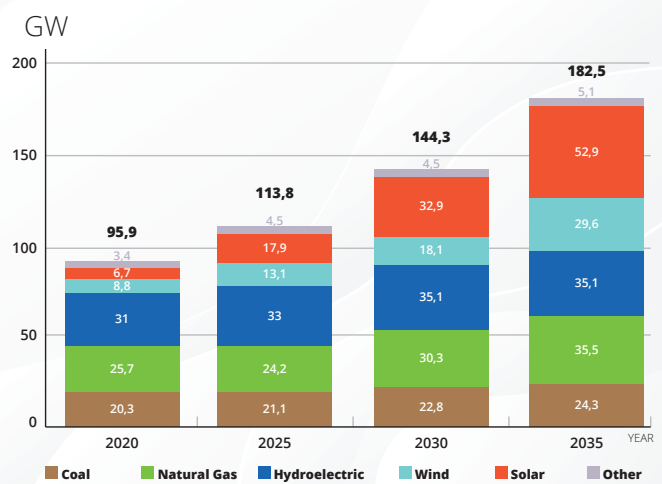
Source : TEİAŞ

Türkiye's National Energy Plan - 2035

	Primary Energy Consumption	205,3 Mtep
	Electricity Consumption	510,4 TWh
	Electricity in Final Consumption	%24,9
	Energy Intensity	%35 ↓
	Total Installed Electricity Capacity	189,7 GW
	Solar Energy	52,9 GW
	Wind Energy	29,6 GW
	Battery Capacity	7,5 GW
	Electrolyzer Capacity	5 GW

Source: Türkiye's National Energy Plan

Solar Installed Capacity 2035 Target 500% Increase



Source: Republic of Türkiye Ministry of Energy and Natural Resources

Gebze
Solar Module
Factory



Aliğa
Solar Module
& Cell Factory

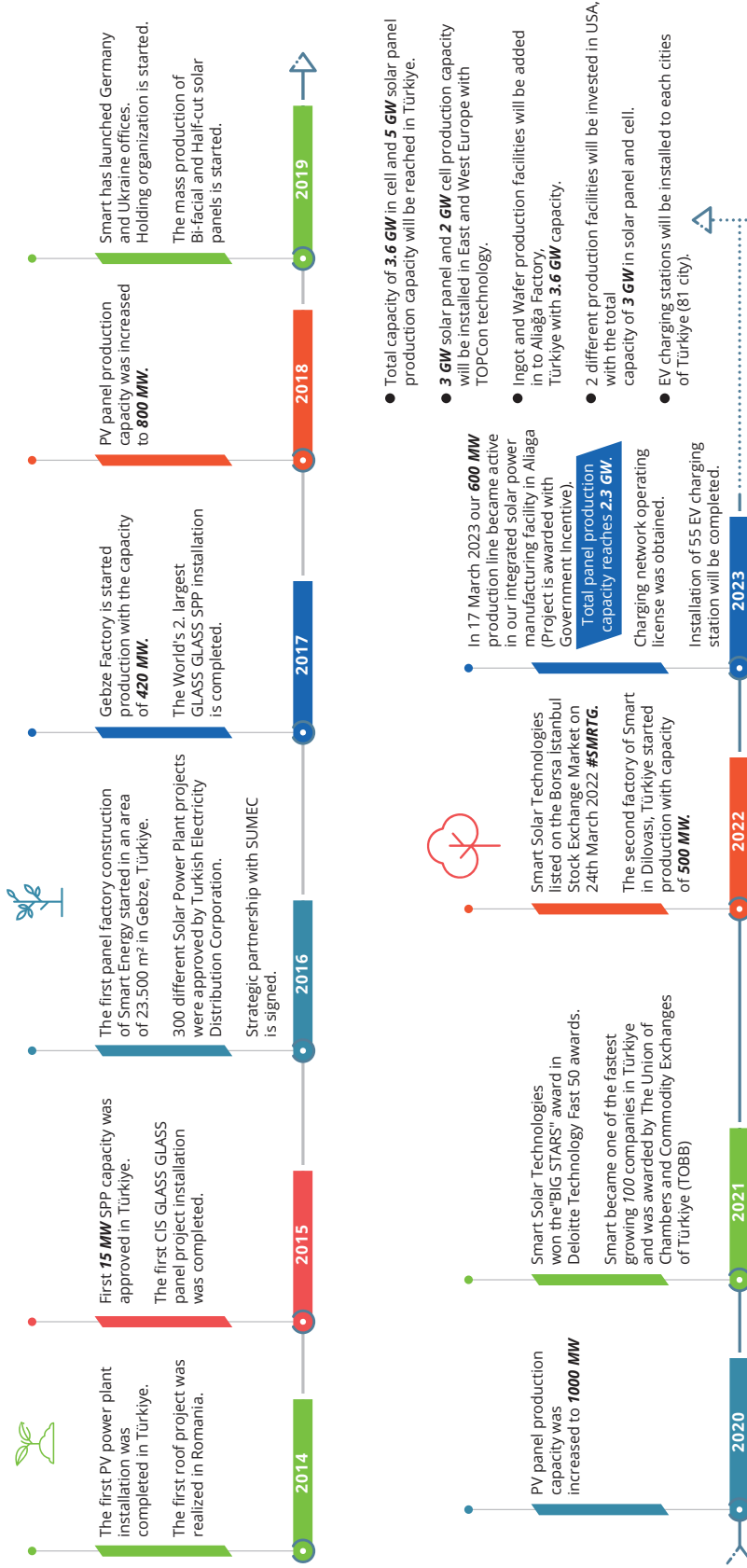


Dilovası
Solar Module
Factory



Smart

SOLAR TECHNOLOGIES



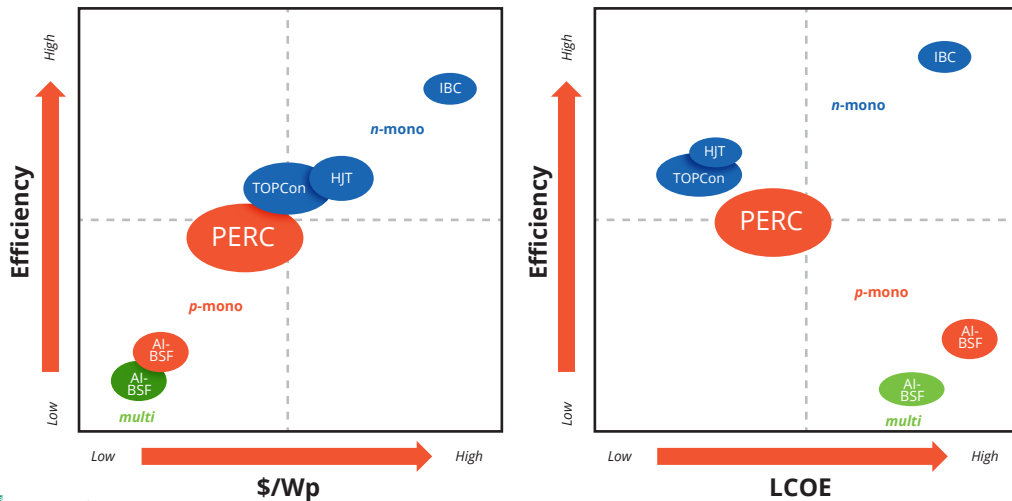
- Total capacity of **3.6 GW** in cell and **5 GW** solar panel production capacity will be reached in Türkiye.
- **3 GW** solar panel and **2 GW** cell production capacity will be installed in East and West Europe with TOPCon technology.
- Ingot and Wafer production facilities will be added in to Aliaga Factory, Türkiye with **3.6 GW** capacity.
- 2 different production facilities will be invested in USA, with the total capacity of **3 GW** in solar panel and cell.
- EV charging stations will be installed to each cities of Türkiye (81 city).



BOLSTERING GREEN ENERGY TRANSITION WITH SOLAR TECHNOLOGY

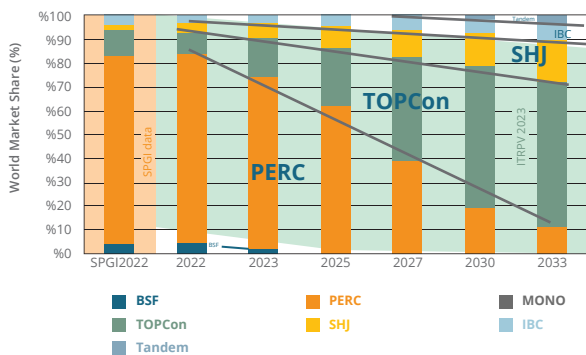
Smart Solar Technologies, with a mission of creating value based on high-quality standards and advanced technology for a greener future, is one of Europe's leading solar panel manufacturers and constructs a bright future with the most efficient and up-to-date solutions, adhering to global standards.

Through its value engineering approach, the efficiency of its solar panels has been increased to **21.30%** in Bifacial MonoPERC cells as a result of ongoing R&D efforts.

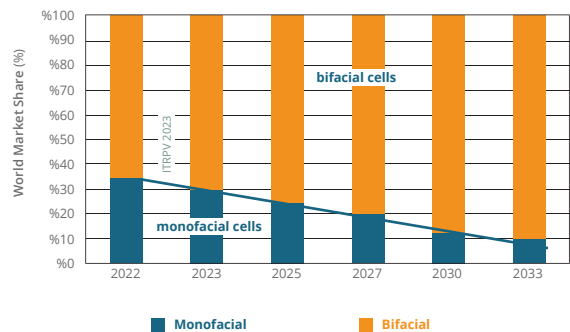


Source: Fraunhofer ISE

Trend: Cell Technologies Share

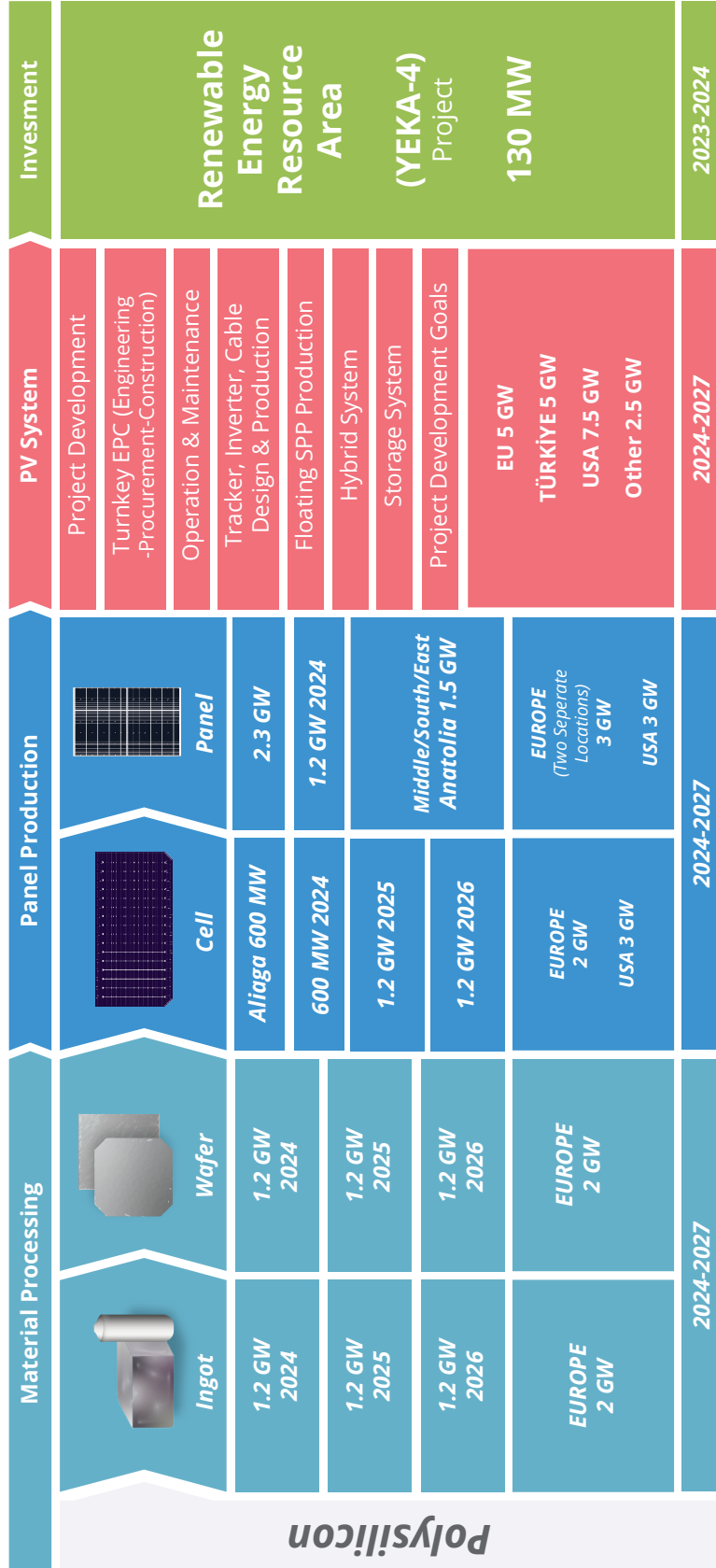


Trend: Bifacial Cells

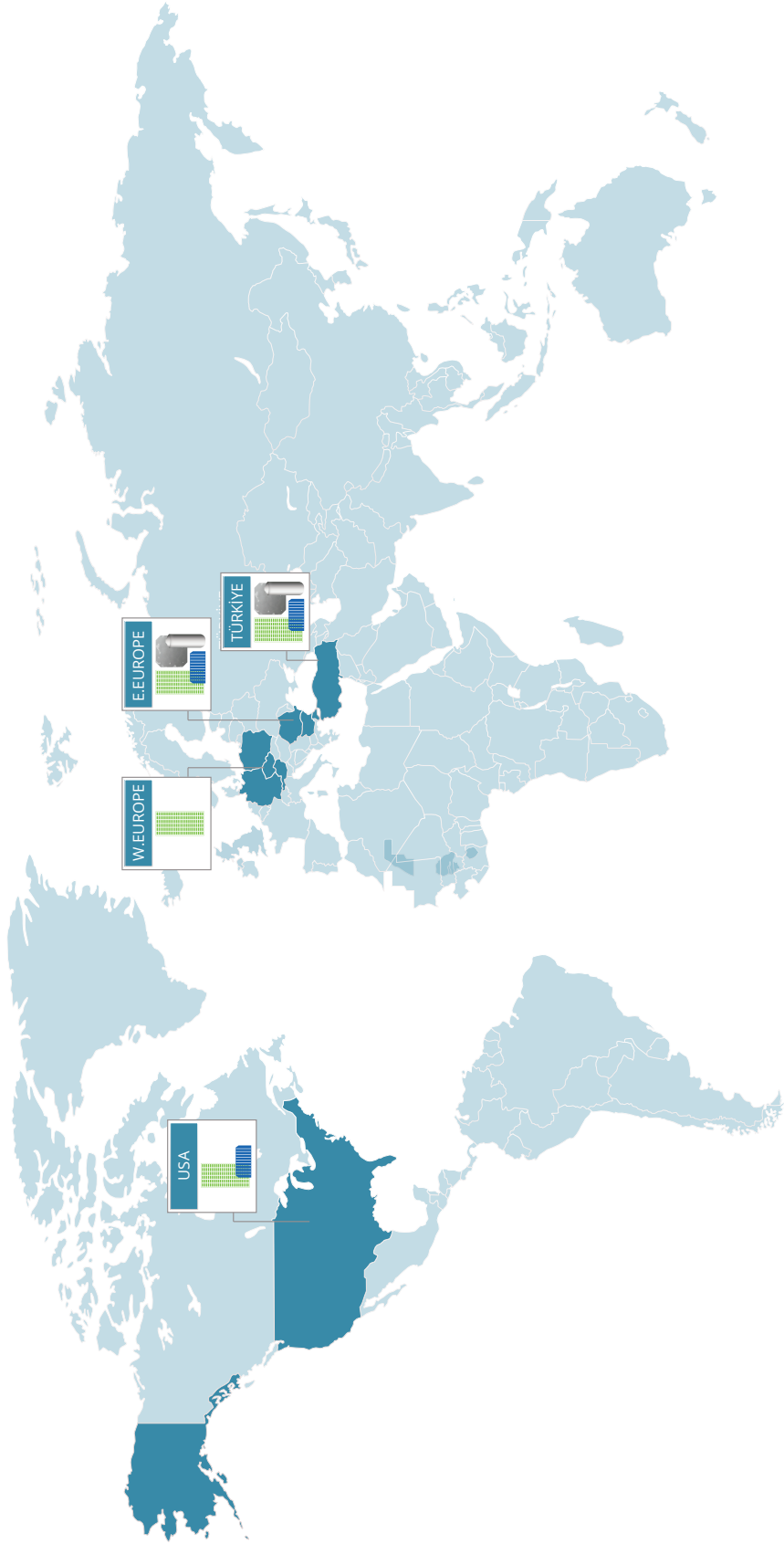


Source: ITRPV March 2023

Solar Value Chain & Planned Investments



OUR INVESTMENT MAP 2023-2027



OUR CORPORATE SUSTAINABILITY FRAMEWORK



NET ZERO ROAD MAP

2023



Establishing Corporate Sustainability Architecture



Publishing First Sustainability Report (In Process)



Responsible Supply Chain Management (Completion due 2023)



Acquiring Greenhouse Gas (GHG) Calculation & Verification Management System Certificate



Integrating Sustainability Processes to SAP Platform



Leed Certificate



2040 Net Zero Goal

2024



Carbon Disclosure Project First Reporting



Joining to BIST Sustainability Index



Awarded First ESG Rating From an International Rating Company



Green Bond Issue Preparation



Bloomberg Gender Equality Index



Equal Opportunity Certificate



Life Cycle Assessment

2025



Obtaining Water Footprint Certificate



Obtaining Energy Management Certificate



Publishing First Integrated Report



Green Bond Issue

2040



NET ZERO

PROJECT BASED INVESTMENT INCENTIVE

ALIAĞA OIZ INVESTMENT

Regarding the photovoltaic solar panel production facility investment of our company to be built in İzmir with a capacity of 2.048 MW/Year, our incentive application to the Ministry of Industry and Technology, Giving Project-Based Investment Incentive to Investments, accepted with the Presidential Decision No. 6211 published in the Official Gazette which dated 15.10.2022 and numbered 31984 .

The projected fixed investment amount subject to the incentive is 7.627.000.000 TL, and the incentive elements that the investment will benefit from are as follows:

- a) Customs Duty Exemption,
- b) VAT Exemption,
- c) VAT Refund,
- ç) Corporate Tax Reduction (tax discount rate: 100%, investment contribution rate: 80%, the amount of contribution to the investment in the investment period)
- d) Social Security Premium Employer's Share Support (10 years without maximum amount limit),
- e) Qualified Personnel Support (maximum 120.000.000 TL),
- f) Energy Support (energy consumption not exceeding 100,000,000 TL for up to 10 years from the date of operation 50% of their expenses),
- g) Allocation of investment location (Land allocation)



OTHER INVESTMENTS

Renewable Energy Resource Area (YEKA-4) BOR-1 SPP Investment

On April 8, 2022, our subsidiary, Smart GES Üretim A.Ş., won the competition for the allocation of solar energy-based renewable energy resource areas and connection capacities in the BOR-1 (100 MWe) tender.

As a result, our group has added solar energy-based electricity generation to its portfolio. The planned power plant will have a capacity of 130 MWp against a 100 MWe SPP capacity. The necessary steps have been taken to obtain the EIA Compliance Certificate and secure financing, with plans to enter the field in 2023.

In addition, an Investment Incentive Certificate for a total fixed investment amount of \$ 110.000.000 was obtained for the BOR-1 Solar Power Plant project. The certificate includes elements such as "VAT Exemption" and "Customs Tax Exemption."



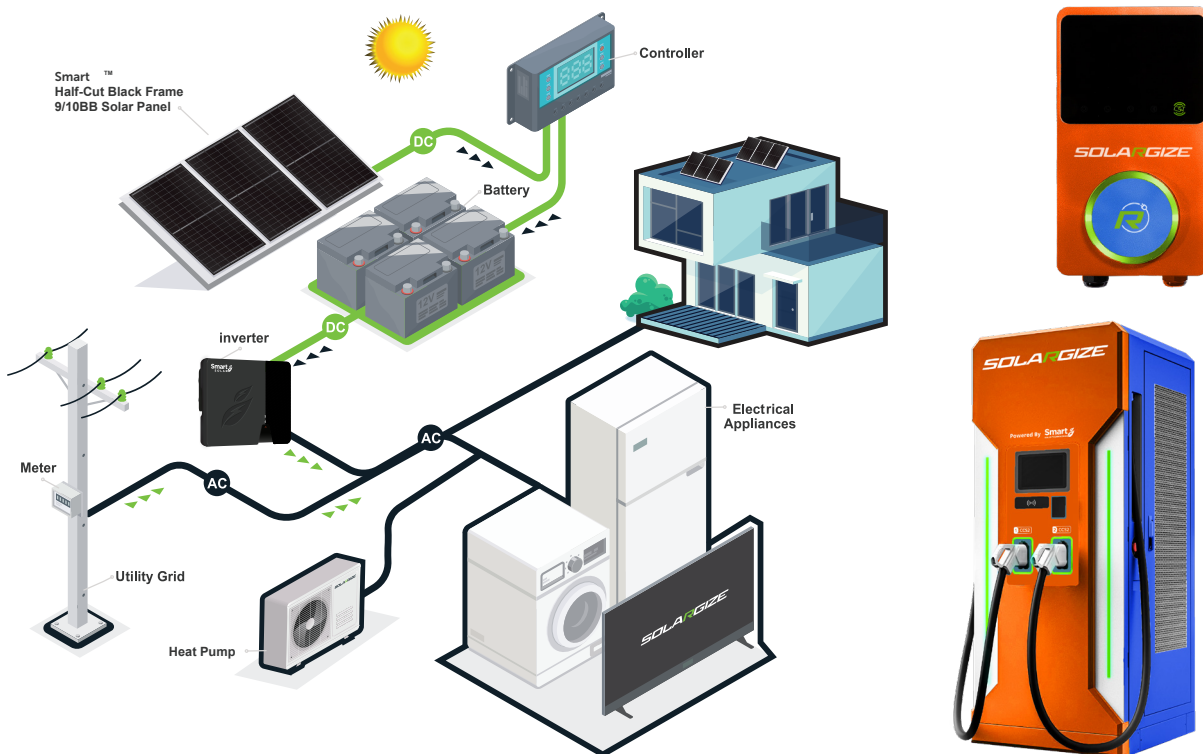
OTHER INVESTMENTS

Solargize Green Mobility Inc., established by Smart Solar Technologies, offers a range of EV charging solutions to improve accessibility and infrastructure. With a focus on user-friendliness, innovation, and sustainability, Solargize aims to establish a comprehensive charging network in urban areas, intercity roads, and public and private parking lots.

The division's products, including fast and ultra-fast charging options, aim to reduce dependence on traditional, emission-heavy vehicles.

The electrical energy that will power our charging network will be sourced from clean and renewable sources, with a zero carbon footprint. This energy will be generated from our IREC certified solar power plants.

Solargize, which will oversee our company's activities related to "Smart Cities and Green Mobility," has officially gone into operation.



OTHER INVESTMENTS

Establishment of new companies for overseas activities

- Through Smart Global Enterprises & Trading BV, a 100% subsidiary of our company, located in the Netherlands, it has been decided to establish a new company called Smart Solar Technologies, which will carry out similar activities with our Company in Bulgaria.
- In order to establish solar panel production facilities up to 3 GW production capacity in at least 2 regions in the United States, it has been decided to establish a new Company through Smart Global Enterprises & Trading BV, a 100% subsidiary of our Company, located in the Netherlands.
- It has been decided to establish a new Company in China to strengthen the procurement and supply chain, and to control the production and quality processes with suppliers, and to participate in this Company 100%.



Digitalization
in Sustainability
Processes

E-Commerce
and Digital
Marketing

Internet
of Things
(IoT)

Corporate
Memory

Artificial
Intelligence
and Machine
Learning (ML)

Digital Culture
Transformation

Digital
Transformation
Roadmap

Cloud
Transformation
of IT Systems

Enhancing Advanced
Analytical Business
Intelligence
Capability

Mobile
Applications

CRM

Industry 4.0
(Digital in Production
With Transformation
Topics MES-MOM
Solutions)

SAP S/4 HANA
SMART ECLIPSE
Cloud
Transformation

Smart Solar Technologies Headquarter

Energy Plaza, Ruzgarlibahce, Feragat Street. No: 2, 34805 Beykoz/Istanbul-TÜRKİYE
P +90 (216) 225 72 00 F +90 (850) 225 7209 info@smartsolar.com.tr

Smart Solar Technologies Gebze Solar Module Factory

Gebze Industrial Area, Tembelova
District, 3200, Street, No: 3207,
Gebze/Kocaeli-TÜRKİYE
P +90 (262) 673 71 00
F +90 (262) 673 71 03

Smart Solar Technologies Dilovasi Solar Module Factory

Cerkesli Industrial Area, IMES 10. Street,
No: 3 Dilovasi/Kocaeli-TÜRKİYE
P+90 (262) 673 71 71

Aliaga Solar Module & Cell Factory

Aliaga Industrial Area, Coraklar District,
5024. Street., No: 10 Aliaga/Izmir-TÜRKİYE



#FacestotheSun

