

SMART SOLAR TECHNOLOGIES

**30.06.2025**



Solar Technologies  
**Production**



Turnkey  
**Solutions**



Investment  
**Services**



E-Mobility  
**Solutions**



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## ABOUT US

### Vertical Integration & Competitive Strategy

We are active in large parts of the PV value chain.

We believe in future of solar energy and we are expanding the vertical integration with the wafer & ingot manufacturing in 2025.



#### INVESTMENT



#### EPC



#### PV MODULE MANUFACTURING



#### CELL MANUFACTURING



#### WAFER MANUFACTURING



#### + INGOT MANUFACTURING







## ABOUT US

Smart Solar Technologies In Numbers

**1,200 MW** TR, Gebze | **1,200 MW** TR, Aliğa | **1,500 MW** EU (2026)  
**2,400 MW Total Module Production Capacity**

**1,400 MW** TR, Aliğa (2025) | **1,500 MW** EU (2027)  
**800 MW Total Cell Production Capacity**

**1,500 MW** TR, Aliğa  
**Wafer Production Capacity**





# ABOUT US

Smart Solar Technologies In Numbers



**2,200 MW+**

Medium Term Project Portfolio



**300 MW+**

Solar Power Plant Investment



**1,500 MW+**

Engineering, Procurement &  
Construction (EPC)





# ABOUT US

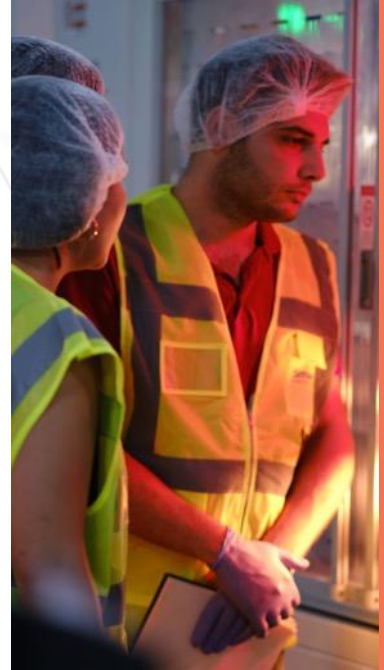
## Smart Solar Technologies In Numbers



**100+**  
Distributors



**110+**  
E-Charge Sockets



**1,100+**  
Employees

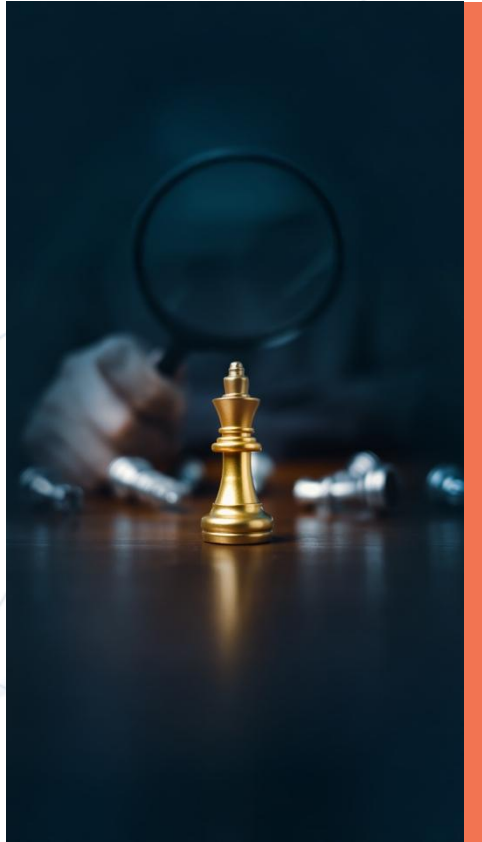


**42%**  
Women Employees

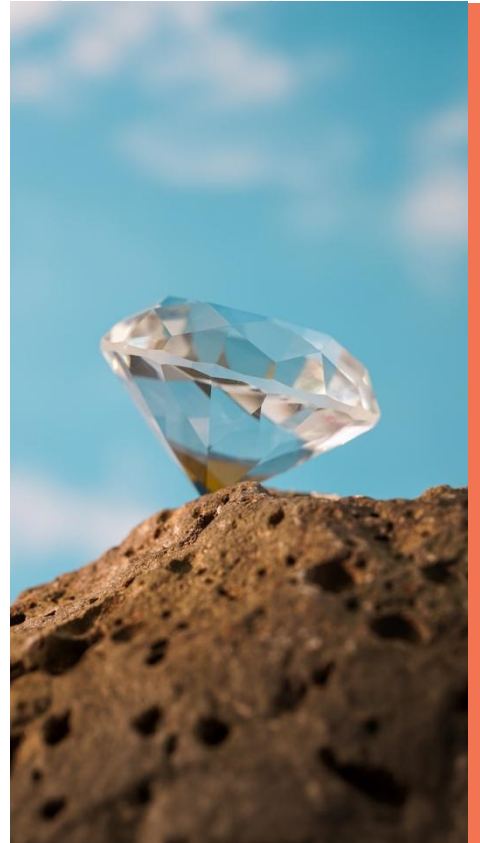


# ABOUT US

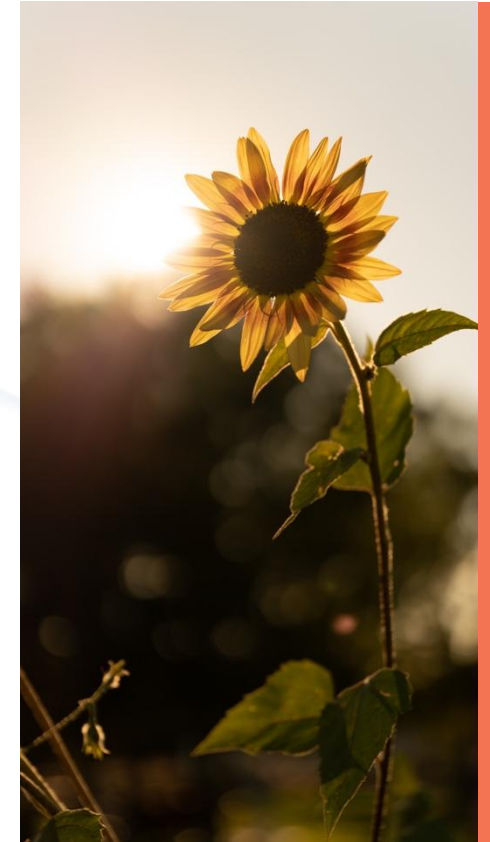
Guiding Principles



QUALITY  
MANAGEMENT



VALUE  
ENGINEERING



INVESTMENT OF  
KINDNESS





## ABOUT US

Awards & Accomplishments



TÜRKİYE'NİN  
500 BÜYÜK SANAYİ  
KURULUŞU

**FORTUNE500**  
TÜRKİYE

TOBB



**50**

Technology **Fast 50**  
TÜRKİYE  
**Deloitte.**



Evaluation made by **JCR Eurasia Rating Inc.** result; Smart Solar Technologies' Long-Term National Institution Credit Rating was determined as "**A - (tr)**", and the Short-Term National Institution Credit Rating was determined as "**J1 (tr) / (Stable Outlook)**".



As Smart Solar Technologies, we received a B rating in the **Carbon Disclosure Project (CDP)** Climate Change Program, which we participated in for the first time, evaluating our sustainability strategies according to global standards and demonstrating our commitment to transparency.



**BORSA  
İSTANBUL**

**BIST100  
#SMRTG**





**SUSTAINABILITY  
INDEX**



# ABOUT US

## Domestic Goods Certificates

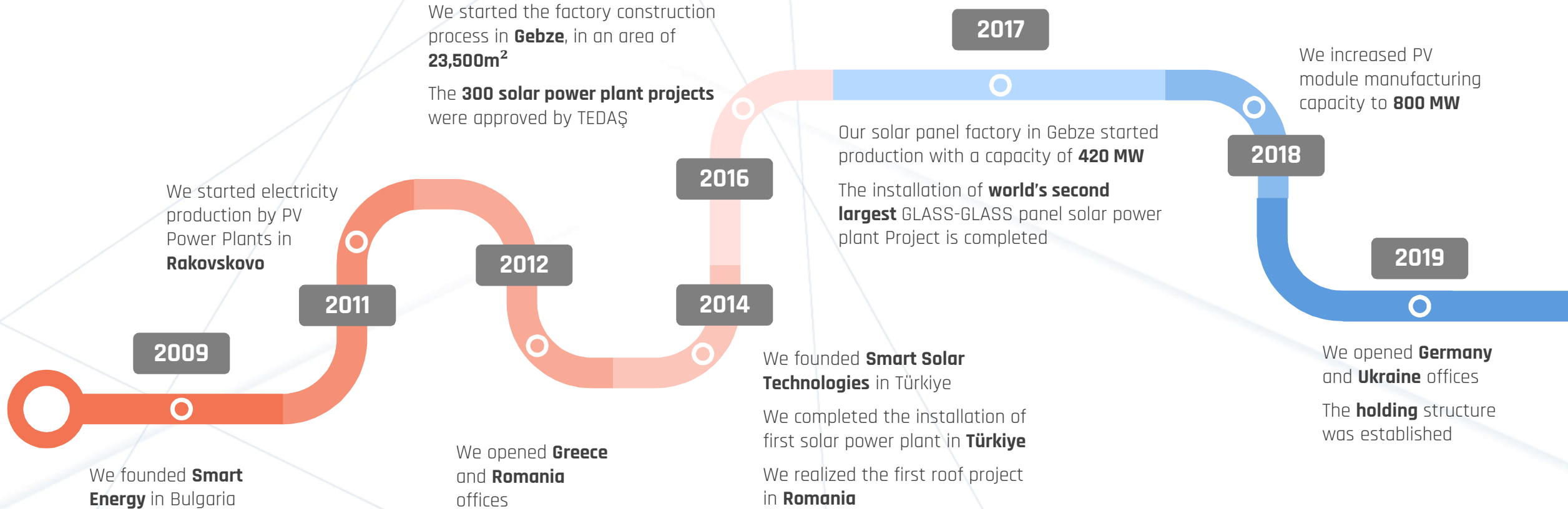
**Bifacial**  
Local Content  
Percentage:  
**88.88 %**

 EGE BÖLGESİ SANAYİ ODASI AEGEAN REGION CHAMBER OF INDUSTRY	<b>TÜRKİYE ODALAR VE BORSALAR BİRLİĞİ</b> <b>YERLİ MALİ BELGESİ</b> 	 TÜRKİYE ODALAR VE BORSALAR BİRLİĞİ TOBB
Belgenin Veriliş Tarihi: 16/01/2025	Belgenin Geçerlilik Tarihi: 16/01/2026	Belge No: 20251210366137756
Firma Unvanı: SMART GÜNEŞ ENERJİSİ TEKNOLOJİLERİ ARAŞTIRMA GELİŞTİRME ÜRETİM SANAYİ VE TİCARET ANONİM ŞİRKETİ ALİAĞA ŞUBESİ		
Adres: ÇORAKLAR Mah. 5024 Sok. NO:10/3		
Telefon:	Faks:	Web:
E-posta:		
Vergi Dairesi / No: Beykoz V.D. / 7720708996 MERSİS No: 077207089600004 Ticaret Sicil No: ALİAĞA-5965 Oda Sicil No: 26293 Ürün Adı: Fotovoltaik güneş paneli		
Ürün Özel Adı: FOTOVOLTAİK GÜNEŞ PANELİ (Hücre girdisinin üretiminde kullanılan wafer ithaldir) Ürün Kodu (PRODCOM/GTİP): 26.11.22.40.00 Teknik Özellikler - CİNS :Backsheetli Güneş Paneli - MARKA :Phono Solar, Smart Solar, Shems Solar, Verde Solar, Solargize - MODEL : Bifacial - SERİ NUMARASI : PSXXXM8H-24/TH		
Kapasite Raporunun Tarihi: 10/06/2024	No: 23866	Geçerlilik Süre Sonu: 13/06/2026
Sanayi Sicil Belgesi Tarihi: 07/06/2023	No: 813393	
Yerli Katkı Oranı (%): 88.88		
Ürünün Teknolojik Düzeyi: Yüksek Teknoloji		
Diğer Belgeler:		
İşbu belge Bilim, Sanayi ve Teknoloji Bakanlığı'nın 13/09/2014 tarih ve 29118 sayılı Resmi Gazetede yayımlanan "Yerli Mali Tebliği (SGM 2014/35)" ile 10/06/2017 tarih ve 30092 sayılı Resmi Gazetede yayımlanan değişiklik Tebliğine istinaden ve TOBB tarafından hazırlanan "Yerli Mali Belgesinin Düzenlenmesi Uygulama Esaslarına" göre 16/01/2025 tarihinde düzenlenmiştir. Belgenin geçerlilik süresi veriliş tarihinden itibaren bir yıldır.		
Düzenleyen Oda EGE BÖLGESİ SANAYİ ODASI	Onaylayan REŞİDE CEYLAN BELGE ŞEFİ (e-imzalıdır)	
		



# ABOUT US

## Milestones





# ABOUT US

## Milestones

We increased our PV panel production capacity to **1,200 MW**

2020

We won our first "**BIG STARS**" award in **Deloitte Technology Fast 50 Awards**

We got awarded by being among **100 fastest growing companies in Türkiye** by **The Union of Chambers and Commodity Exchanges of Türkiye (TOBB)**

We established **Switzerland** office

2021

Our shares began trading on **Borsa İstanbul** as of **March 24, 2022 #SMRTG**

2022

2023

We opened **USA, Spain and Netherlands** offices

We obtained **CPO licence** to operate our charging stations

2024

We began domestic solar cell production in **Aliğa** with a capacity of **800 MW**.

We were among **top 500 largest industrial companies** in Türkiye (ISO500)

2025

We received a **B score** in the **CDP Climate Change Program**, which we participated in for the first time.

We have been included in the **BIST Sustainability Index**.

We launched a **greenfield investment project** in **Bulgaria** for an integrated production facility with a capacity of **1,500 MW**.

We started **domestic wafer** production in **Aliğa** with a capacity of **1,500 MW**.

# SOLAR TECHNOLOGIES MANUFACTURING

## PV Module Manufacturing

High efficiency is achieved in solar module manufacturing by using Multi Busbar, PERC, Half-Cut Cell and Bifacial technologies in our state-of-the-art automated production lines with an annual production capacity of **2,400 MW** and installed in an indoor area of **69,363 m<sup>2</sup>**.

## PV Cell Manufacturing

With already **800 MW** cell production capacity, the Company will achieve **2,200 MW** production capacity within 2025.

## PV Wafer Manufacturing

Our **1,500 MW**-capacity domestic wafer production facility has been commissioned.







# SOLAR TECHNOLOGIES MANUFACTURING

Gebze Solar Module Factory

**1,200 MW** Solar Module Production Capacity

**19,363 m<sup>2</sup>** Production Area

Kocaeli / Türkiye





## SOLAR TECHNOLOGIES MANUFACTURING

Aliaga Integrated Factory

**1,200 MW** Solar Module Production Capacity

**2,200 MW** Solar Cell Production Capacity

*(800 MW operational, 1,400 MW will be commissioned within 2025.)*

**1,500 MW** Wafer Production Capacity

**50,000 m<sup>2</sup>** Production Area



# SOLAR TECHNOLOGIES MANUFACTURING

Smart Technology



## PERC

Production options with 144/132/120/108 cells



**Better Shading Tolerance**



**Current Classification**

Increases generation power in PV plants



**More Power**

Low temperature coefficient (Pmax):  $-0.35\%^{\circ}\text{C}$



**More Reliable**

Low hot-spot effect



**Anti-PID**



**Half-Cut Hücre  
Teknolojisi**

## TOPCon

Production options with 144/132/120/108 cells

(rectangular cell: 132, 120, 108, 96)



**TOPCon Technology**

Stronger power generation



**Current Classification**

Increases generation power in PV plants



**High Efficiency**

Energy production up to %30 from the %80 rear side



**More Power**

Low temperature coefficient Pmax):  $-0.29\%^{\circ}\text{C}$

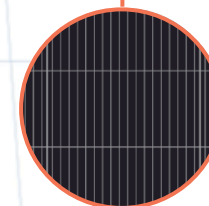


**More Reliable**

Low hot-spot effect



**Anti-PID**



**Half-Cut Hücre  
Teknolojisi**



**Cam-Cam  
Üretim**



# REFERENCES

Some Solar Panel References



## **BORUSAN EnBW\***

Türkiye - Utility SPP  
94 MWp



## **DESKİ**

Türkiye - Utility SPP  
90 MWp



## **ZİRAAT GES\***

Türkiye - Utility SPP  
63.87 MWp



## **SAMSUN**

Türkiye - Utility SPP  
57.28 MWp



## **VAN ARISU\***

Türkiye - Utility SPP  
55 MWp



## **EDİKLİ**

Türkiye - Utility SPP  
15.20 MWp



## **NİĞDE - YEKA 4 BOR-1 SPP**

Türkiye - Utility SPP  
128 MWp

*\*Engineering and installment services were provided by the Company as well.*





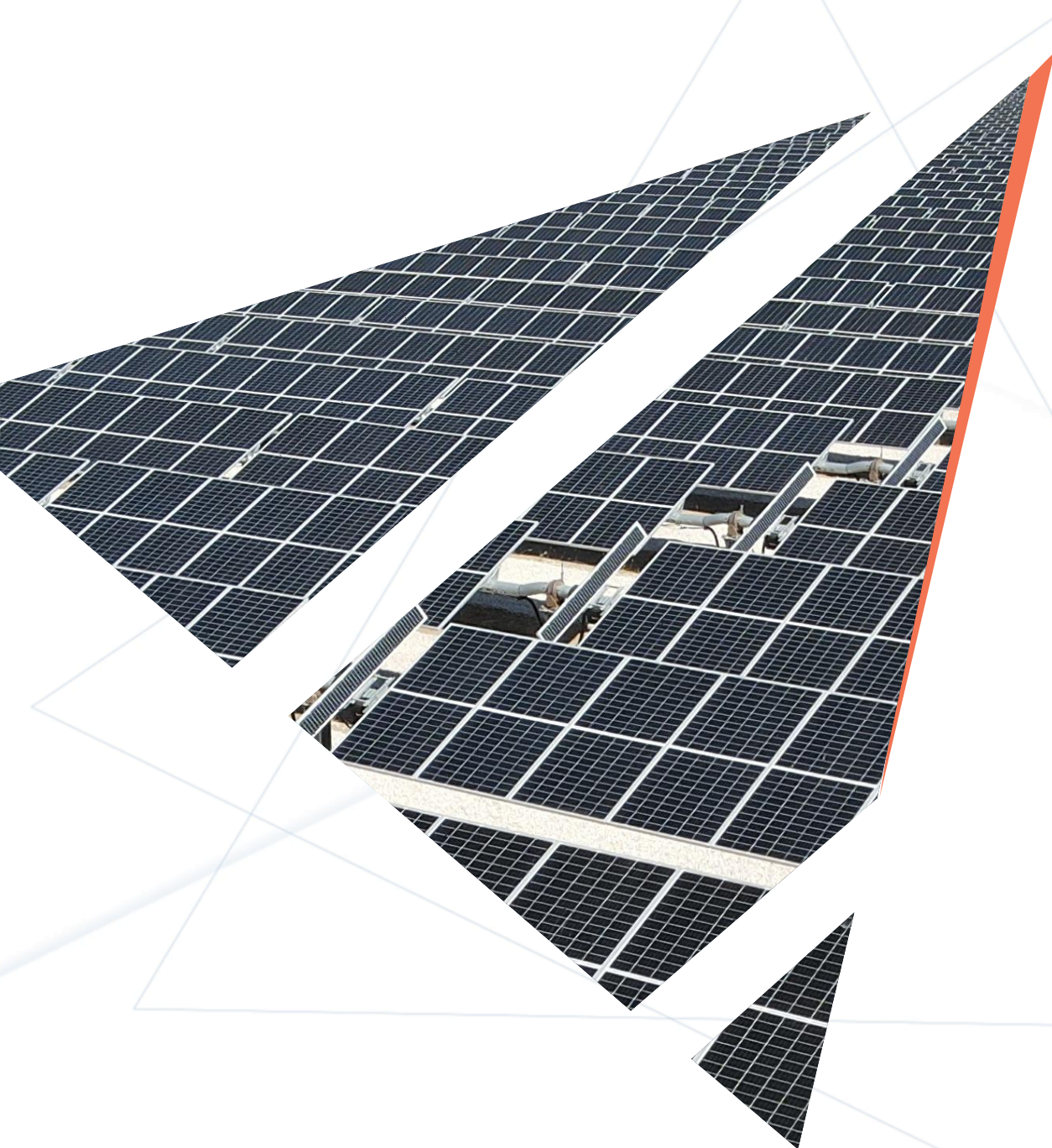
## TURNKEY SOLUTIONS (EPC)

### EPC Basic Application Areas

- Large Scale Commercial Field Projects
- Medium Scale Commercial and Self-Consumption Based Field Projects
- Large and Medium Scaled Commercial and Self-Consumption Roof-top Projects
- Integrated Hybrid Projects with PV

We are a solution partner with over 10 years of experience in the installation of **1,500+ MW** solar power plants.





## TURNKEY SOLUTIONS (EPC)

### EPC Activities

In the PV market which we entered 14 years ago as an investor in Eastern Europe, we are able to work with the business definitions such as Project Developer, EPC company, BOT (build/operate/transfer), BOO (build/own/operate) in all over the world with our experience that we developed so far.

We are reversing the global energy deficit, air pollution, and dependence on fossil fuels through solar energy. With our turnkey services, we perform risk management and offer investors a project portfolio within the framework of operational excellence.







## TURKNEY SOLUTIONS (EPC)

### EPC Activities

We inspect the materials and products supplied when delivered to the field and just before installation. We replace damaged or defective materials or products. We protect all materials and equipment that may be exposed to damage, inclement weather or ultraviolet light. We ensure that sensitive equipment is never exposed to dirt or dust to maintain manufacturers' warranties and long-term reliability.

We ensure that all specific designs for construction, mechanical and electrical works comply fully with local and European regulations and standards. We provide appropriate packaging to protect all materials and equipment during delivery or if they are damaged in the field.





## TURNKEY SOLUTIONS (EPC)

### Smart Tracker

Smart Tracker System is a technology used in solar power plants and it allows solar panels to follow the movements of the sun. The system allows panels to be exposed to the maximum sunlight and therefore produce more energy.







## INVESTMENTS

- The 130 MWp Niğde Bor Solar Power Plant, using domestically produced solar panels, is nearing completion. **53.66 MWe of the plant has begun** generating energy and supplying it to the grid.
- The 800 MW solar cell plant investment at the Aliğa Integrated Solar Panel and Cell Production Facility has been finalized, and cell production has begun. An **additional 1,400 MW** of cell production capacity will be built in 2025, and financing has been secured.
- The wafer production investment at the Aliğa Integrated Solar Panel and Cell Production Facility has been finalized, and domestic wafer production with a capacity of **1,500 MW began** in July 2025.





# **SOLARGIZE**

With our vision of leading future green Technologies, we embrace the mission of developing solutions for the needs of smart cities by establishing Smart Solargize Green Mobility Inc. to spearhead the electric vehicle charging network project.

By 2030, we aim to capture a 10% market share, providing customers with reliable and rapid charging solutions through the deployment of 10,000 licensed charging units.





# SUBSIDIARIES

30.06.2025

SUBSIDIARIES	FIELD OF ACTIVITY	SHARE (%)	COUNTRY
Smart Güneş Enerji Ekipmanları Pazarlama A.Ş.	Güneş Enerjisi Santrali Ekipmanları	100	Türkiye
Smart GES Enerji Üretim A.Ş.	Güneş Enerjisi Santrali Ekipmanları	100	Türkiye
Smart Sumec Enerji Ekipmanları ve Pazarlama A.Ş.	Güneş Enerjisi Santrali Ekipmanları	50	Türkiye
Smart Güneş Enerjisi Teknolojileri Ar-Ge Üretim Sanayi Ticaret A.Ş. & IHK Holding A.Ş. Konsorsiyumu	Güneş Enerjisi Santrali Ekipmanları	60	Türkiye
Icarus Solar GmbH	Güneş Enerjisi Santrali Ekipmanları	100	Germany
Smart Solar Ukrayna	Güneş Enerjisi Santrali Ekipmanları	100	Ukraine
Smart Solar Technology GmbH	Güneş Enerjisi Santrali Ekipmanları	100	Germany
Smart Solargize Yeşil Mobilite Enerji Anonim Şirketi	Mobil Şarj İstasyonları Dağıtım Ağı	100	Türkiye
Smart Gunes Tecnologias Renovables S.L.	Güneş Enerjisi Santrali Ekipmanları	100	Spain
Smart Global Enterprises & Trading B.V.	Güneş Paneli ve Santrali Ticari Faaliyetleri	100	Netherland
Smart Yeşil Hidrojen Teknolojileri ve Üretim A.Ş.	Yakıt ve Enerji Üretimi	70	Türkiye
Smart Solar Technologies AD	Güneş Enerjisi Santrali Ekipmanları	100	Bulgaria
Smart Güneş Paneli Hücre Üretim Teknolojileri A.Ş.	Güneş Enerjisi Santrali Ekipmanları	100	Türkiye
Smart Energy Global Investment and Development B.V.	Güneş Enerji Santrali Ekipmanları Ticari Faaliyetleri	100	Netherlands
Smart Energy Bulgaria B.V.	Güneş Enerji Santrali Ekipmanları Ticari Faaliyetleri	100	Netherlands
Smart Energy Iberia B.V.	Güneş Enerji Santrali Ekipmanları Ticari Faaliyetleri	100	Netherlands
Smart Energy Romania B.V.	Güneş Enerji Santrali Ekipmanları Ticari Faaliyetleri	100	Netherlands
Smart Energy Overseas Investment B.V.	Güneş Enerji Santrali Ekipmanları Ticari Faaliyetleri	100	Netherlands
Smart Green Energy Technologies Inc	Güneş Paneli ve Santrali Ticari Faaliyetleri	100	USA
Smart Green Energy Trading LLC	Güneş Paneli ve Santrali Ticari Faaliyetleri	100	USA
Erseka Solar Park 3 Lot 1	Güneş Paneli ve Santrali Ticari Faaliyetleri	31	Albania
Erseka Solar Park 3 Lot 2	Güneş Paneli ve Santrali Ticari Faaliyetleri	31	Albania
KES Adi Ortaklığı	Elektrik İletim Hattı	33	Türkiye
Smart Yeşil Enerji Depolama A.Ş.	Depolamalı Güneş Paneli ve Santrali Ticari Faaliyetleri	100	Türkiye
Kaizenn Güneş Teknolojileri ve Enerji Üretim A.Ş.	Güneş Enerji Santrali Ekipmanları Ticari Faaliyetleri	100	Türkiye



# FINANCIAL STATEMENTS

30.06.2025

BALANCE SHEET ITEMS	30.06.2025	31.12.2024	% Change
Current Assets	11.151.678.582	12.422.936.595	-10,23
Fixed Assets	9.906.361.995	7.951.038.194	24,59
<b>Total Assets</b>	<b>21.058.040.577</b>	<b>20.373.974.789</b>	<b>3,36</b>
Short Term Liabilities	14.247.459.757	13.150.298.670	8,34
Long Term Liabilities	3.173.018.216	3.123.809.356	1,58
Equities	3.637.562.604	4.099.866.763	-11,28
<b>Total Liabilities</b>	<b>21.058.040.577</b>	<b>20.373.974.789</b>	<b>3,36</b>
INCOME STATEMENT ITEMS	30.06.2025	30.06.2024	% değişim
Revenue	4.238.873.619	5.687.342.441	-25,47
Cost of Sales	3.371.810.154	4.439.249.536	-24,05
<b>Gross Profit</b>	<b>867.063.465</b>	<b>1.248.092.905</b>	<b>-30,53</b>
Gross Profit Margin (%)	20,46	21,95	-
Operating Profit Before Financing Expenses	519.298.204	1.364.163.866	-61,93
<b>Net Profit For The Period</b>	<b>-477.406.590</b>	<b>220.056.947</b>	<b>-316,95</b>
Equity Holder of The Parent	-475.124.509	222.276.249	-313,75
<b>EBITDA</b>	<b>826.120.991</b>	<b>1.494.900.063</b>	<b>-44,74</b>
EBITDA Margin (%)	19,49	26,28	-





## SUSTAINABILITY

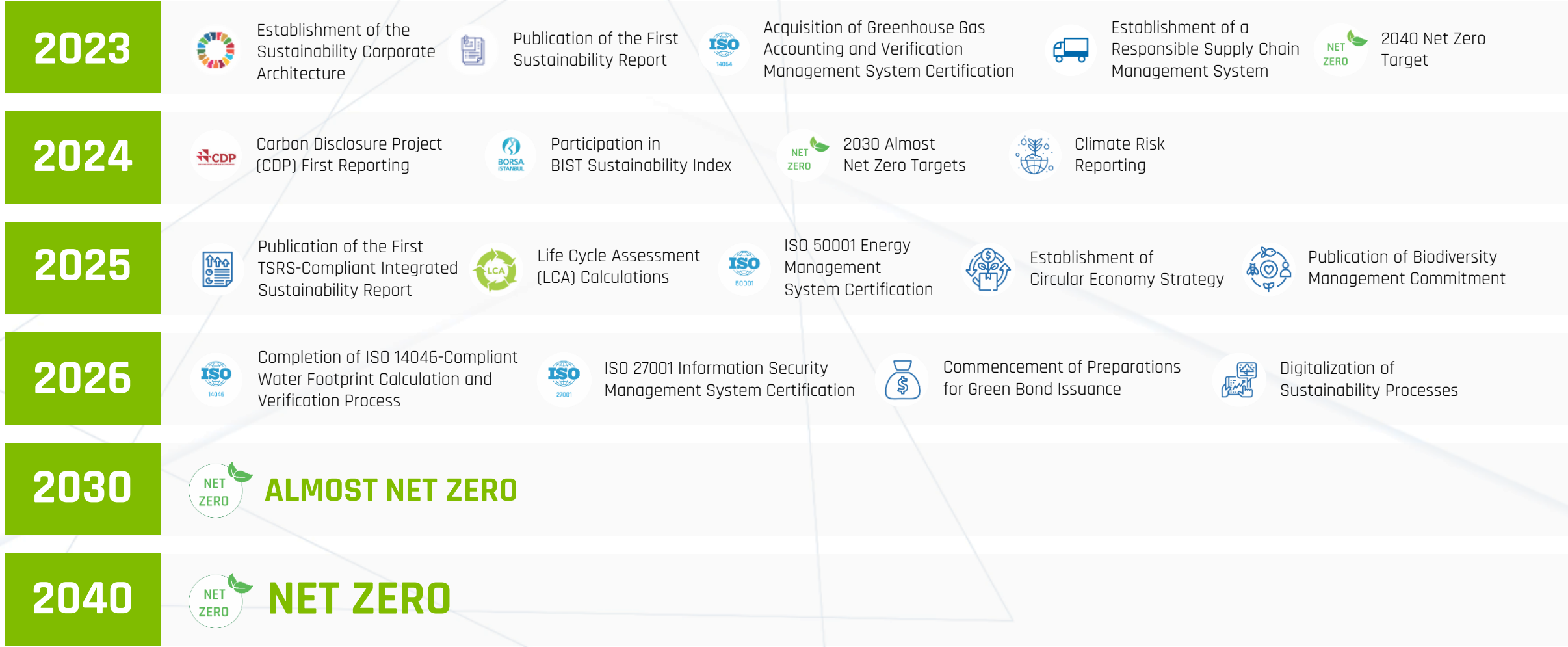
With our 2040 Net-Zero target, we aim to contribute to all relevant Sustainable Development Goals, in particular action.





# SUSTAINABILITY

Net Zero Target



# SUSTAINABILITY

## Fully Traceable Supply Chain

We map our polysilicon supply chain down to the excavated Quartz.

### Risk Assessment

We conduct risk assessments for all companies in our supply chain.

### Due Diligence

We carry out due diligence activities to verify compliance with human rights, aligned with the major requirements of our Supplier Code of Conduct.

### Traceability

We trace our deliveries to ensure that no companies supporting forced labor are involved in our operations, in line with our Polysilicon Traceability Requirements.

### Mitigation of Human Rights Violations

If any human rights violations are identified, we take immediate action to mitigate the risk, including excluding the violating companies from our supply chain.



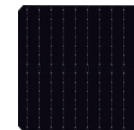
Polysilicon



Ingot



Wafer



Cell



PV Module



### HEADQUARTERS

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**F:** + 90 262 673 71 03



### ALİAĞA PV CELL & MODULE INTEGRATED FACTORY

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▶ THANK YOU

