### CV REE Energi® wherever the sun is shining...





**T. Tarık SARVAN** Chairman of the Board



Volkan YILMAZ
Chief Executive Officer
(CEO)

### **About Us**

Established in 2010, CW Enerji Mühendislik Ticaret ve Sanayi Anonim Şirketi is a production and service company operating in the photovoltaic (PV) power generation sector. Being one of the leading solar panel production companies in Europe and Türkiye with an annual solar panel production capacity of approximately 1.8 GW (GigaWatt), CW Enerji, has been producing solar panels at high quality standards since 2009.

In addition to the investment and technical consultancy, project design, system design, licensed and unlicensed power plant installations, license acquisition and operation activities of solar power plants (SPP); CW Enerji also provides services in project planning, project design, financing management, project implementation and postinstallation technical maintenance and repair in accordance with the Turkish unlicensed production regulation. While offering detailed solutions in terrain / roof installations, residential solar energy applications, on-grid/off-grid battery powered systems, hybrid systems, solar irrigation systems; CW Enerji also offers solutions for lithium cell energy storage systems, hydrogen energy, LED lighting systems, solar powered camera systems, solar powered electric vehicle charging stations (Carport) and many more.

CW Enerji continues its activities in the sector at full speed with an understanding that does not compromise on quality and has adopted customer satisfaction as its primary mission.







### Mission & Vision

CW Enerji aims to contribute to Türkiye and the world economy by expanding the use of infinite solar energy and other clean energy sources for an ecological, sustainable and a greener planet, supporting the future of mankind with new technologies. To achieve this, CW Enerji aims to leave a more livable nature to future generations and has adopted the main mission of maintaining its existence for a long time as an honest, reliable, principled, and intellectual organization.



### **Quality & Certification**

CW Enerji is a solar panel manufacturing company that offers new technologies by acting sensitively in order to make the lives of people and other beings more sustainable, whose priority in all products and services is customer orientation and high quality, and which is taking firm steps towards becoming the world leader in the sector. CW Enerji Solar Panels are produced in facilities with ISO 9001:2015, ISO 14001:2015, ISO 45001, ISO/ IEC 27001:2013, ISO 50001:2011, ISO 10002:2014, TSE COVID-19 Safe Production, Zero Waste, PV Cycle, UL, IEC certificates and standards which are continuously and periodically tested by independent test organizations such as TSE, TÜV SÜD, TÜV Rheiland, TSE, VDE, TÜV Nord. In addition, the solar panels produced with these values of CW Enerji are insured by Allianz Sigorta A.Ş., being covered by the product liability insurance policy along with linear performance insurance.































IEC 60068-28-68 (Dust and Sand Test)

### We are Türkiye's 408th Largest Company!



CW Enerji is included in the list of "Türkiye's 500 Largest Industrial Enterprises" ISO500 2017 by the Istanbul Chamber of Industry and Commerce to identify the largest companies in the field of industrial activity in Türkiye, and ranked 408th with its net sales in 2017.

Being the only solar energy company that was placed in the ISO500 ranking, CW Enerji continues to provide significant contributions to the Turkish economy and employment though its goal of "Strong and Productive Türkiye".



CW Enerji was ranked 21st in the "Top 100 in Türkiye - Türkiye's Fastest Growing Top 100 Companies" list in 2019, which was organized by the Union of Chambers and Commodity Exchanges of Türkiye (TOBB) and the Economic Policy Research Foundation of Türkiye (TEPAV) in cooperation to draw attention to the achievements of Türkiye's fastest growing companies on a global scale and to strengthen their global connections, taking into account the two-year turnover increase between 2015 and 2017. In the list announced in 2020, which was determined by taking into account the two-year turnover increase between 2016 and 2018, CW Enerji continued its success and stability, and rose to 14th place.

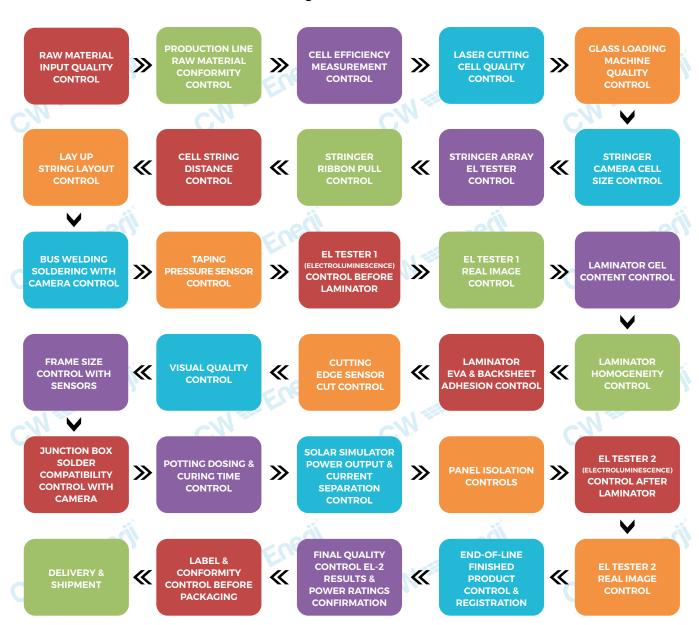


### **Production**

CW Enerji is one of the leading solar panel manufacturers in Europe and Türkiye with an annual solar panel production capacity of approximately 1.8 GW. Having qualification certificates obtained from international certification bodies, CW Enerji Solar Panels are produced by completing 30 main quality control points in accordance with the latest technology, providing high performance and efficiency for a long time with an understanding that does not compromise on quality.



### **SOLAR PANEL QUALITY CONTROL POINTS**





### R&D

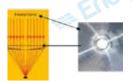


Acting with the awareness that the future is shaped in the hands of those who produce, process and possess knowledge; and that absolute success is possible through R&D and innovation; CW Enerji has developed many products and useful models with its R&D center. Giving great attention to R&D studies, CW Enerji has made significant contributions to the Turkish science by successfully developing the CPV (Concentrated Photovoltaics) panel production that was started in 2013 within the scope of Turkish state-supported projects. Within the scope of intensive R&D studies, CW Enerji is about to finalize its work with the aim of developing high-efficiency Si solar cells in the project it started in 2019 and ensuring the integration of the developed technology directly into mass production.















### P&D

Aside from the large-scale solar applications, CW Enerji also develops products for end users in order to increase the use and application of clean and endless solar energy.

With the solar charging panels and foldable solar bags designed under this notion, users can charge their mobile phones or power banks free of charge, while solar jackets have a heating function in addition to these functions. In addition, while the charging process of electric vehicles can be done with the solar-powered parking lots under the concept 'Solar Carport'; long-term lighting can be provided without the need for cables and grid connections with specially designed solar LED lamps.

Meanwhile, with thoroughly designed flexible solar panels, customers have a desired size of solar panel options for yachts and caravans. Additionally, they can produce electricity from the sun with the solar panels integrated

into the buildings with unique restaurant, winter garden and façade applications. With uniquely designed solar umbrellas, phone charging and area lighting can be done at the same time in hotels, cafes, poolsides and beaches. Additionally, having developed the original and modular lithium energy storage system with its experienced engineering staff, CW Enerji has also started to work on hydrogen fuel storage systems. As a domestic manufacturer, CW Enerji continues to develop sustainable products specific to today's needs at full speed.



### A Bedside Book for Those Who have just Stepped into the Industry and Those Who will.

Being aware and responsible that the future will be shaped in the hands of those who produce, process and possess knowledge, CW Enerji attaches importance to sectoral education since the day it was founded. Through CW Akademi, it has provided information to dealers, authorized sales points, students who want to receive training about generating electricity from the sun. In short, CW Akademi has informed clean energy enthusiasts and units interested in solar energy about the components of SPPs and aimed to provide training to increase the technical equipment expertise. With the "CW Akademi Photovoltaic Technical Training Programs", conducted face-to-face and online, CW Enerji continues to share its sectoral knowledge and experience with solar energy enthusiasts.





At this point, as CW Enerji, our goal is to convey the importance of clean and safe solar energy in our country and all over the world; and to increase the application areas of this infinite energy source. By doing so, we can leave a cleaner world to our future generations.



### **Domestic Dealership Structure**

CW Enerji, which is one of the largest solar panel manufacturers in Türkiye and Europe with an annual production capacity of approximately 1.8 GW, also has the largest dealer structure in the photovoltaic power generation sector, spread over 81 cities in Türkiye. With its strong dealership structure, CW Enerji is able to provide fast service within a wide network throughout Türkiye. With the annually organized "CW Enerji Bayi Toplantısı", CW Enerji has made it a mission to strengthen the innovations in the sector by transferring them to the CW Enerji dealerships, refreshing the knowledge and sharing the information of today's age. You can join CW Enerji's strong dealership structure, where you will have many advantages.



### **Overeas Dealership Structure**

With its international product and service quality certificates, CW Enerji has become a well-known and preferred brand both in Türkiye and abroad. Addressing many countries with its reliable and diverse product and service range, CW Enerji continues at full speed to form a dealership structure in these regions. In addition, you can take part in the rapidly developing story of clean and sustainable solar energy all over the world by joining the dealership structure of CW Enerji, which plans to create a concept showroom, having one already opened in Munich, in many parts of the world as well. You can get information from our contact addresses for dealership conditions.

### **Our Exporting Destations**



As CW Enerji, we are aware that clean and sustainable energy is our future and we proudly continue to be one of the largest solar panel manufacturers in Europe and Türkiye with an annual solar panel production capacity of approximately 1.8 GW. With our vision of "wherever the sun is shining", we present our products that are produced with the resources of Türkiye to the world. We export our proudly produced solar panels and all other system components to Germany, Morocco, Ukraine, Canada and every corner of the world.

### **Customer Tracking System**

Thanks to CW Enerji Customer Tracking System (MTS), customer routing and management is much easier. With MTS, it is ensured that the intense demands and feedback coming from social media, traditional media and other channels are directed and solved in the fastest and most accurate way. MTS, which can be used as a common business journal with CW Enerji and its dealers, paves the way for a multi-faceted business. By providing many conveniences to its users such as easy follow-up of work, organized business workflow, quick response to demands and easy after-sales feedback, with MTS, you will be able to look further.





### Online Platform

As CW Enerji, our most effective tool in explaining the importance and benefit of sustainable, clean energy to everyone is our own website. Our website, where our customers can find answers to all their questions with a single click by knowing the value of their time, undertakes the role of flag carrier in the solar energy sector.

By simply filling out a form, users can share their planned projects with us and implement these projects in the light of the information given. You can browse our wide range of products on our website and get wide and clear information about our products. With the 'Download Center', you can access all the documents you want from a single page.



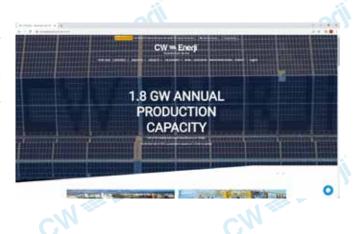
You can get information about the 'Photovoltaic Technical Training Program' that CW Enerji organizes to increase the awareness of our sector for everyone who wants to have information about solar energy and participate in our sectoral trainings. You can visit our website that will make your life easier at "cw-enerji.com".

### **Project Simulator**

Serving as the flag carrier in the photovoltaic power generation sector, with CW Enerji's website's simulator feature, you can now make preliminary discoveries over the internet without the need for a physical discovery. By accessing the simulator with your internet browser at "simulator.cw-enerji.com", you can examine the availability of the area where you wish to install a solar power plant and view the details of the solar power plant you can install in that area. Based on the information provided, you can view details such as the annual approximate energy production of the solar power plant to be installed, the depreciation period and the amount of savings obtained as a result CW Gençlik of the estimated system.







### **B2B Platform**

CW Enerji has put its user-friendly B2B Platform at the service of its dealers in order to enable them to carry out their purchasing and procurement processes easily. Dealers who register to the system can order the products they need online with the convenience of payment from CW Enerji's wide range of products available. What's more, users can view their previous orders and invoices with ease. Users can view their current transactions while also creating sub-users. CW Enerji will continue to develop and enrich the business processes for its partners and support its dealers.



CW Enerji launched the CW Gençlik platform in 2023 for the young and entrepreneurial population to get to know the renewable energy sector closely and to develop themselves in this sector. With this platform, it is aimed to provide an environment in which Turkish youth can selfdevelop and to enable them to enter the business world during their academic studies. With CW Gençlik, university students can participate in the program by registering on the platform website. After the trainings they receive from the expert staff of CW Enerji, they can take part in technical discovery and sales operations with the most suitable dealer determined for them. With every positive activity they carry out, students earn income and step into the rapidly growing sector of renewable energy without delay.













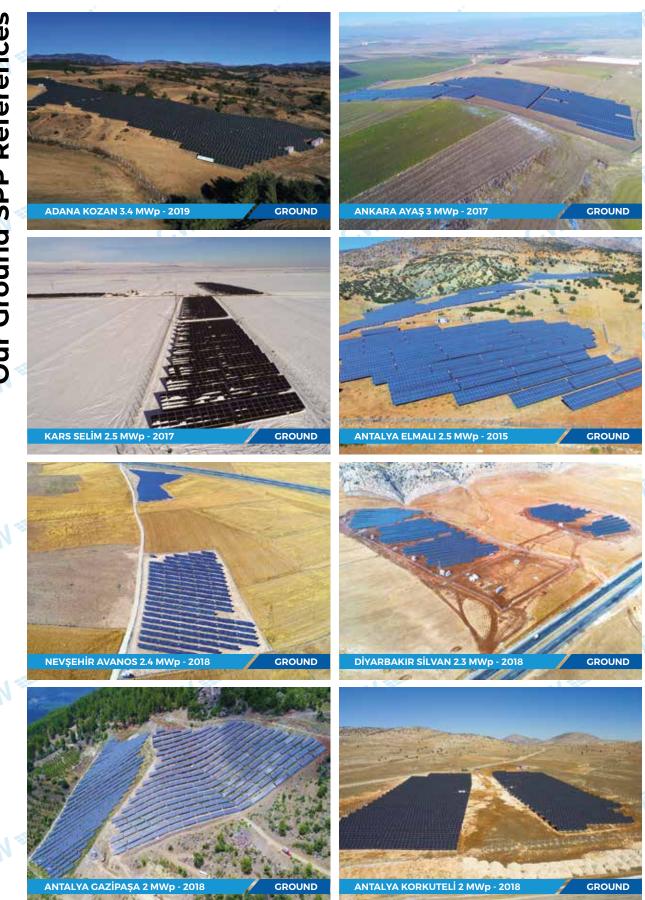
















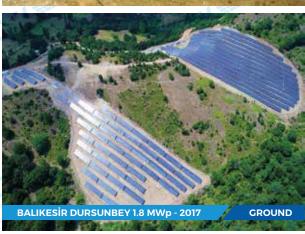














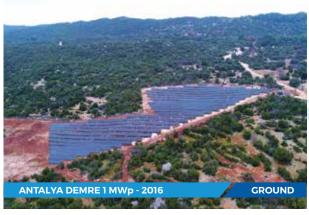






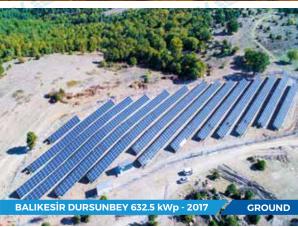






































## Our Rooftop SPP References







































**ROOFTOP** 



MARDÍN MERKEZ 581 kWp - 2021

**ROOFTOP** 

ANTALYA KORKUTELİ 552 kWp - 2021

















Our Rooftop SPP References































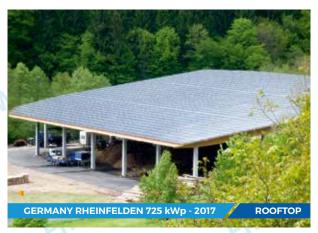






### **Our International SPP References**

With an annual solar panel production capacity of 1.8 GW, CW Enerji operates an industry 5.0 solar panel factory with a significant size on an area of 65,000 m². Based on this, CW Enerji will extend its international services with the establishment of CW Energy Germany AG and further distributorships in 2022.













### CW ENERJI IS NOW IN MUNICH, GERMANY

CW Enerji is now closer to Central European countries with our German Munich office! ...

After building a strong reputation in the solar energy sector with our solar turnkey projects, we are establishing CW Energy Germany AG to reach even greater goals in 2022. As our first step towards this cleaner and brighter feature we opened our office in Munich and we are very excited that we will be even closer to the demands of our Central European partners from now on.

- Solar Panel Supply
- EPC Partnership
- Creating a Dealer Network
- Turnkey Projects
- Wholesale Off-Grid and On-Grid Inverters









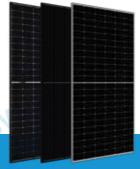






### **Our Products**

### **Solar Panels**



TN10 Half-Cut TopCon MB N-Type PERC Monocrystalline Solar Panels **144TN10** 580-560Wp



TN10 Half-Cut TopCon MB N-Type PERC Monocrystalline **Solar Panels 120TN10** 480-460Wp



TN10 Half-Cut TopCon MB N-Type PERC Monocrystalline Solar Panels **108TN10** 435-415Wp



210mm

cell

TOPcon cell 182mm



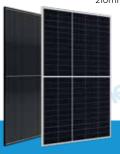
M12 Half-Cut Multi Busbar PERC Monocrystalline **Solar Panels 132PM12** 675-650Wp



M12 Half-Cut Multi Busbar PERC Monocrystalline **Solar Panels 120PM12** 610-590Wp



M12 Half-Cut Multi Busbar **PERC Monocrystalline Solar Panels** 108PM12 550-520Wp



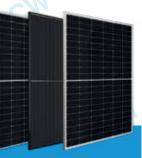
M12 Multi Busbar PERC Monocrystalline Solar Panels Triple-Cut 120TPM12 Half-Cut **80PM12** 405-385Wp



M10 Half-Cut Multi Busbar **PERC Monocrystalline** Solar Panels **156PM10** 595-565Wp



M10 Half-Cut Multi Busbar **PERC Monocrystalline** Solar Panels 144PM10 550-530Wp



M10 Half-Cut Multi Busbar **PERC Monocrystalline** Solar Panels **120PM10 4**55-440Wp



M10 Half-Cut Multi Busbar **PERC Monocrystalline** Solar Panels 108PM10 410-395Wp







**Easy Life Series Mobile Solar Charging Panels** 15Wp



**Easy Life Series Mobile Solar Foldable Panels** 25Wp



110Wp



**Easy Life Series** Heated Solar Jacket 5Wp



**Solar Panels** 170-110Wp

CW # Energ

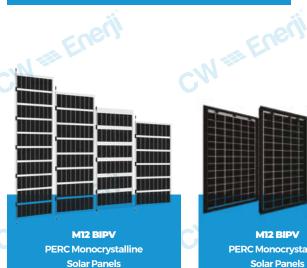


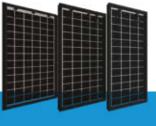
cell 125mm

IBC cell 125mm

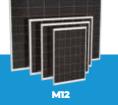








M12 BIPV **PERC Monocrystalline Solar Panels** 390-260Wp



**PERC Monocrystalline** Solar Panels 250-60Wp

**TTKB** 400-240Wp



## CW 🎟 Enerji

# one of the leading solar module manufacturers in Europe and Türkiye

With a production capacity of 1.8 GW

**36PM6** 35-50-60-75-110Wp

Atatürk Blv. No:20 Döşemealtı, Antalya / Türkiye Phone: 444 20 02 E-Mail: info@cw-enerji.com Antalya Organize Sanayi Bölgesi 1. Kısım

Phone: +49 89 1250 36 860 E-Mail: info@cw-energy.de Bürgerplatz 5 - 85748 Garching, Munich / GERMANY Mobile: +49 172 997 4646 / +90 549 339 0030 CM EELENI

### **Off-Grid Inverters**



TommaTech New Series Smart Inverter 1kW



TommaTech New Series Smart Inverter 3kW



TommaTech New Series Smart Inverter 5kW



TommaTech New Series Smart Inverter 3.6/7.2/11kW

### **Low Voltage Hybrid Inverters**

### **High Voltage Hybrid Inverters**



TommaTech
Plus Series
Smart Hybrid Inverter
5.6kW



TommaTech HV Plus Series Smart Hybrid Inverter 10/15kW



TommaTech Uno Hybrid 3.0-5.0kW



TommaTech Trio Hybrid 5.0-10.0kW



TommaTech Uno Hybrid K-Series 3.0-7.5kW



TommaTech Trio Hybrid K-Series 5.0-15.0kW

### **On-Grid Inverters**



TommaTech Uno Atom 0.6-3.6kW



TommaTech Uno Home 3.0-6.0kW



TommaTech Trio Atom 3.0-15.0kW



TommaTech Trio Plus 8.0-30.0kW



TommaTech Trio Atom K-Series 3.0-15.0kW



TommaTech Trio Plus K-Series 8.0-30.0kW

### **Heating & Cooling Heat Pump**



Residential EVI Full DC Heat Pump R32 - TF / 20-26kW



Residential EVI Full DC Heat Pump R32 - MF / 13-16kW R32 - TF / 16kW



Pool Type Full DC Heat Pump R32 - POOL - MF / 21kW R32 - POOL - TF / 28kW



**Solar Charge Controllers** 

TommaTech S-Series
MPPT Solar Charge Controller
60A-3kW



### **Irrigation Inverters**



TommaTech SPI Series Solar Pump Inverter 1.5-15kW



TommaTech SPI Series Solar Pump Inverter 18.5-132kW

### **Solar LED Lighting**



Solar LED Walkway Lighting 20W



Solar LED Street / Road Type Lighting 20W/36W/58W/90W

### **Electric Vehicle Charging Stations**





TommaTech Personal AC Electric Vehicle Charging Stations 22-44kW



TommaTech Commercial DC Electric Vehicle Charging Stations 60-240kW

### **Solar Carports**





### **Solar Power Pack and Storage Systems**



TommaTech
Solar Power Pack
1.0kW



TommaTech
Solar Power Pack
3.0kW



TommaTech
Solar Power Pack
5.0kW



Outdo Solar Gel Battery 12-24V



TommaTech Hightech Power 3.0kWh + Storage Manager



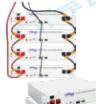
TommaTech Hightech Power 3.0kWh



TommaTech General Pack 5.8kWh



TommaTech Booster Pack 5.8kWh



TommaTech Modular Lithium Battery 2.4kWh





Modular Series Lithium Battery
12.8V-100Ah/25.6V-200Ah/51.2V-100Ah



12.8V-60Ah/12.8V-100Ah/12.8V-200Ah&25.6V-100Ah

### **Installation and Connection Equipment**

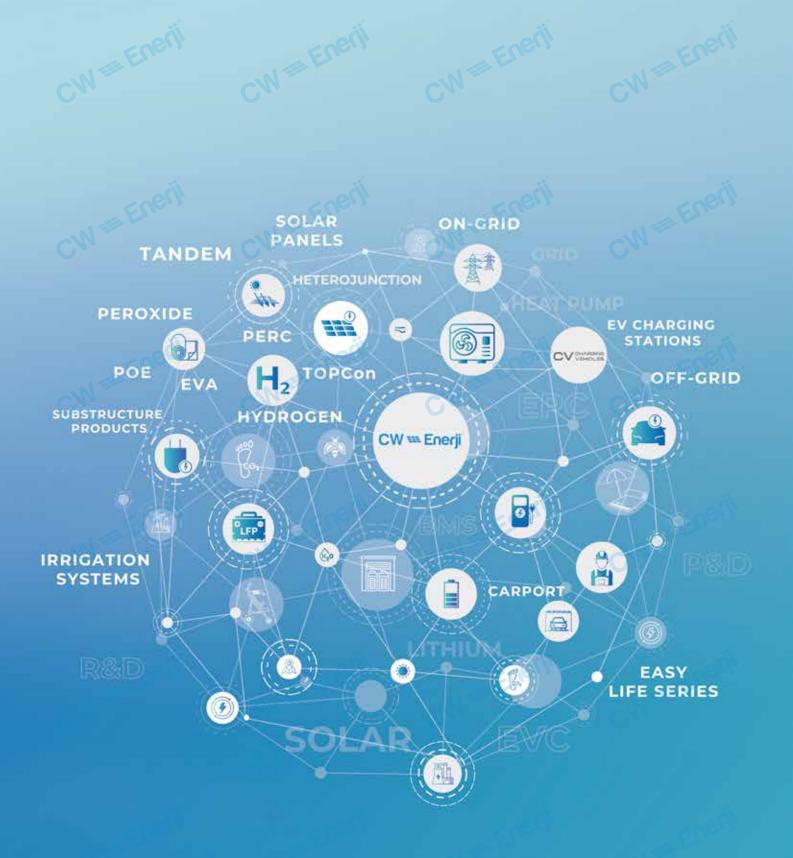
- Solar Cables
- Solar Connectors & Connection Equipment
- Aluminum Support Structure
- Galvanized Support Structure













### MANUFACTURING ANNUAL SOLAR CAPACITY OF 1.8 GW





1st FACTORY ANTALYA OSB 1.Kısım Atatürk Blv. No:20 Döşemealtı, Antalya / TÜRKİYE

> 2<sup>nd</sup> FACTORY ANTALYA OSB 3.Kısım 33.Cd. No:7 Döşemealtı, Antalya / TÜRKİYE

3rd FACTORY CW INTERNATIONAL FREE ZONE (PORT) Liman Mh. Sera Sk. Konyaaltı, Antalya / TÜRKİYE

> 4<sup>rd</sup> FACTORY ANTALYA OSB 1.Kısım Atatürk Blv. No:22 Döşemealtı, Antalya / TÜRKİYE

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