

## Summary

With its developing economy, Turkey is becoming one of the major centers of world economy. Global sized enterprises prioritize Turkey in their investment decisions and investors gain advantages thanks to elements such as Turkey's geographic location, natural resources, trained labor force.

Trained labor force; land-sea-air transport with multiple alternatives; proximity to metropoles and many such advantages underline Balıkesir in hosting sustainable investments. This work aims to promote current investment environment in order to enable Balıkesir to take a bigger role in Turkey, which is becoming a center of attraction with new investments.

This guide promotes the investment environment in energy sector in Balıkesir and goes into detail in renewable energy sub-sector in particular, in which Balıkesir is the leading city in Turkey; and lists the advantages investors will benefit by investing in Balıkesir. From the potential of Balıkesir in energy sector to its logistics opportunities, from regional incentives provided by the Ministry of Industry and Technology to services provided by South Marmara Development Agency, a wide range of pre-investment information is given in detail in the guide.

Apart from this Energy Investment Guide, investment guides on other sectors such as Agriculture, Tourism, Industry, and Mining were prepared and presented into potential investors' service. In addition to these, South Marmara Development Agency also provides support services with its technical infrastructure and its expert staff, and supports all investments in Balıkesir as a solution partner.

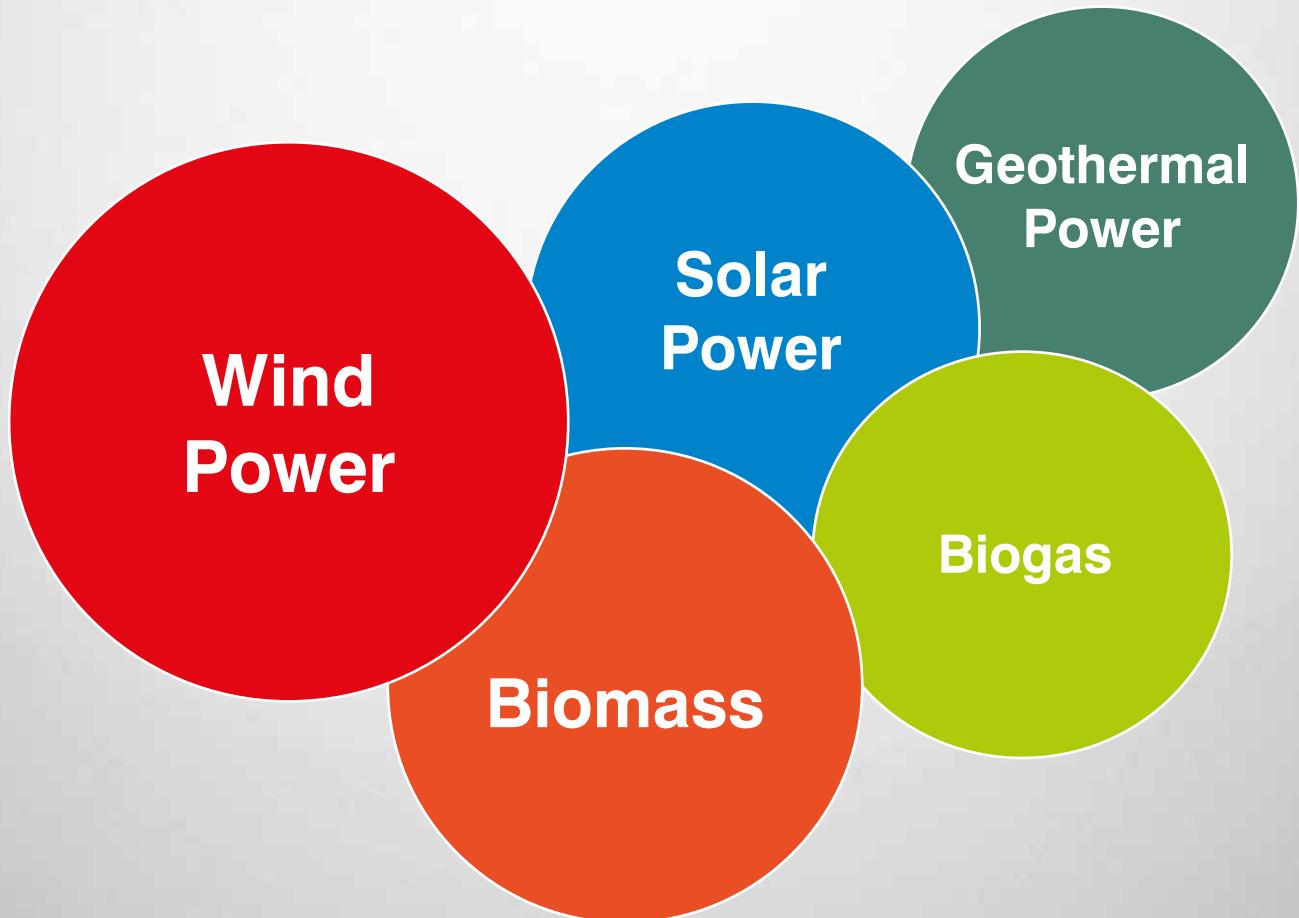
While we hope that this Guide proves useful to you; we would like to inform you that you can always benefit from the extensive support services our Investment Support Office gladly provides in order to help you realize your investments.



## Right Spot for Renewable Energy Investments

Prominent in renewable energy sources, Balıkesir has a strong potential with regards to wind, biomass, biogas, solar power and geothermal energy production.

While it is in a location very favorable for wind and solar energy investments, the province also has plenty of agricultural and animal waste capacity with high calorific values required for biogas and biomass investments.



## Leader in Wind Energy Investments

Its topography, climatological and meteorological features make Balıkesir climb to the top in Turkey in wind power investments.

15% of all wind power investments in Turkey are made in Balıkesir. All of these investments are active and have a total installed capacity of 1,123.25 MW. Total installed power capacity of wind power investments under construction is 124.8 MW, and constitutes 20.59% of all wind power investments under construction in Turkey.

Total area of land where wind power plants can be installed in Balıkesir consists of 3,000 km<sup>2</sup>. Total installable power capacity is calculated approximately as 14,000 MW.

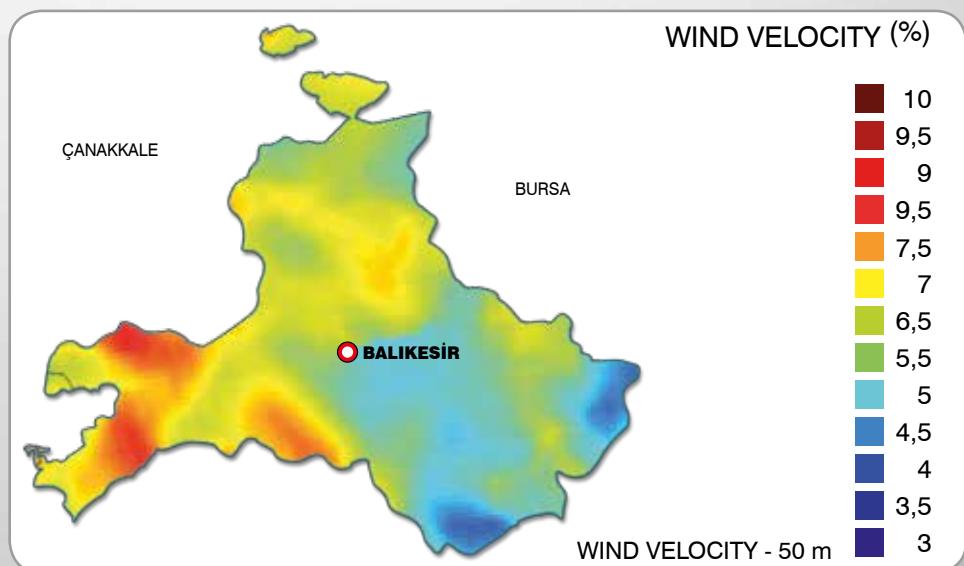
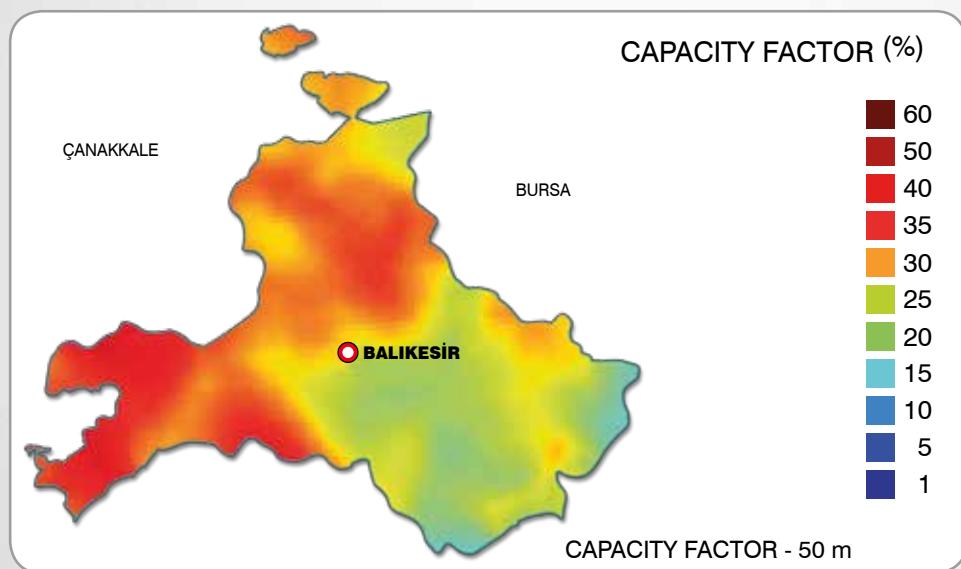
**Distribution of WPPs by Provinces**





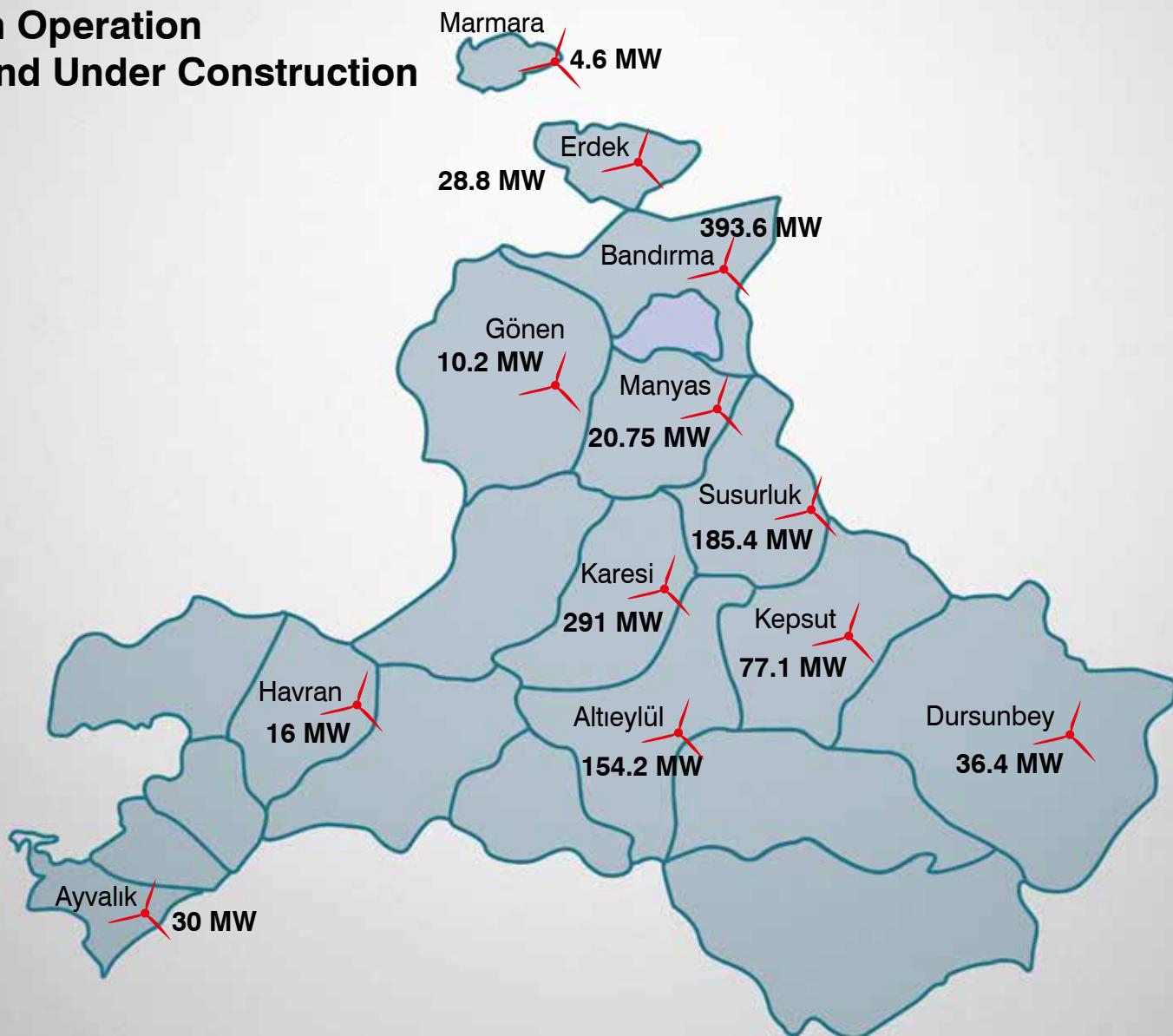
## Leader in Wind Power

Balıkesir has a topography which enables meeting critical values such as 7 m/s wind speed at 50 meters and 35% capacity factor rather easily, which are considered minimum values for economical WPP investments.



# The City Embracing the Wind

## WPPs in Operation and Under Construction





## Waste Turns into Energy with Biomass and Biogas Investments

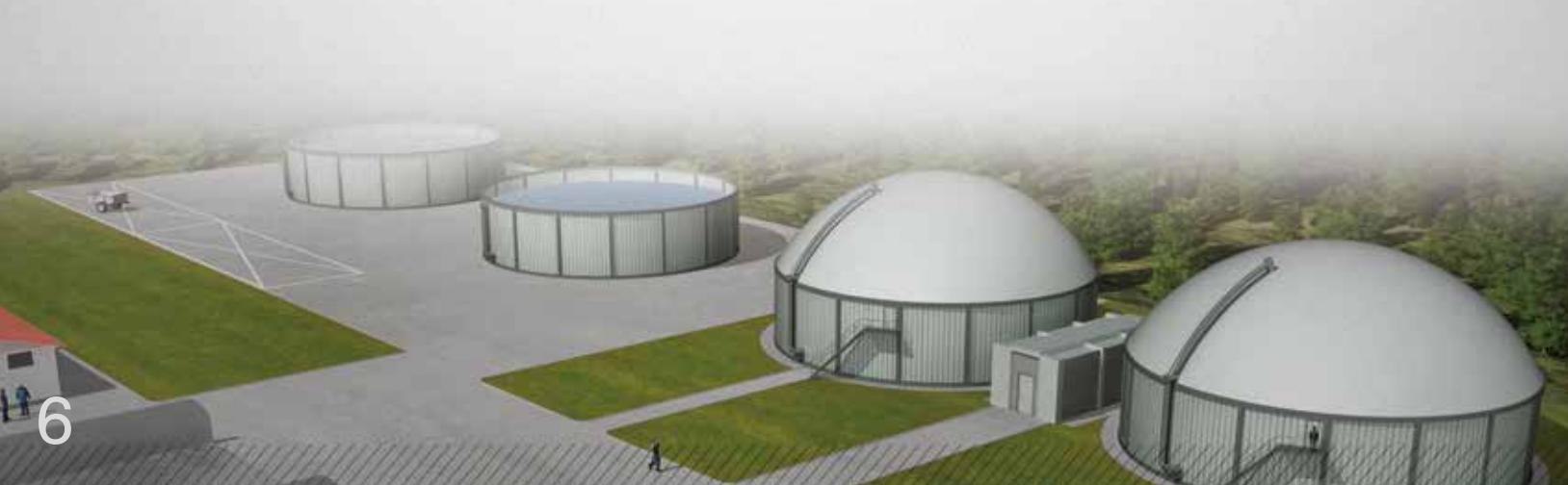
Agricultural and animal wastes, forestry products and wastes as well as industrial wastes are used as sources for biomass energy production.

Balıkesir province has abundant high calorie wastes of all kinds required for biomass investments such as wheat, rice, sunflower, corn and canola, are grown in abundance in Balıkesir; creating a huge potential for biomass investments with regards to their high calorie content.

Biogas is a gas mixture without odor and color, and lighter than air with mostly methane content obtained by anaerobic fermentation of organic waste materials.

Commonly performed bovine feeding, dairy cattle raising, ovine feeding and poultry farming wastes constitute major resources for biogas.

- ▶ **Havran, Edremit, Burhaniye, Ayvalık and Gönen in fruit and olive wastes**
- ▶ **Altıeylül, Karesi and Gönen in vegetable wastes**
- ▶ **Karesi, Altıeylül, Bigadiç, Bandırma and Gönen in field crops wastes**
- ▶ **Bandırma and its vicinity along, Karesi, Altıeylül and Savaştepe in poultry wastes**
- ▶ **Bigadiç, Gönen, İvrindi, Karesi and Altıeylül in animal wastes**
- ▶ **Edremit, Havran, Balya, Sındırğı, Dursunbey, Bigadiç in forestry wastes**

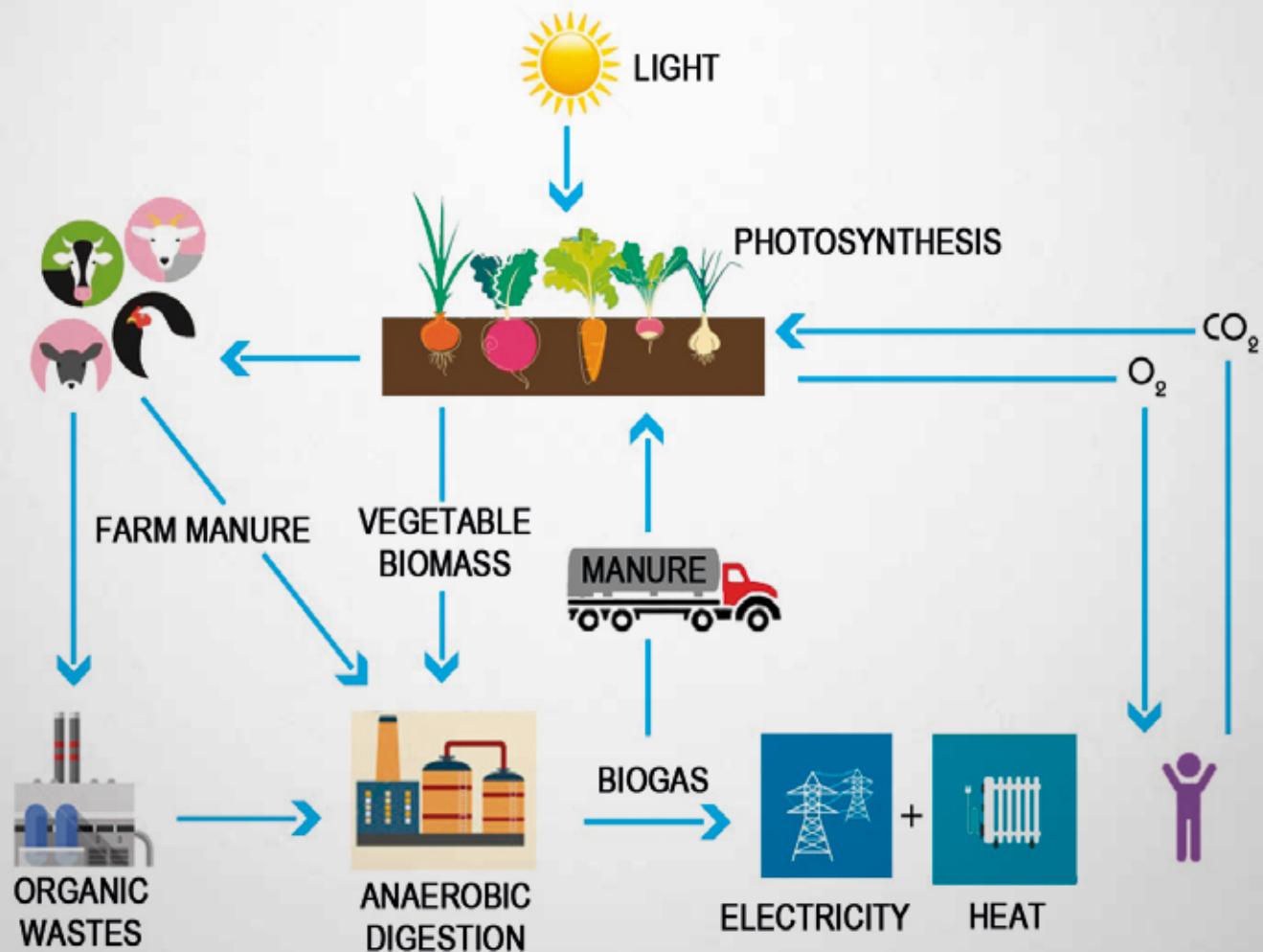


## Waste Turns into Energy with Biomass and Biogas Investments





## Waste Turns into Energy with Biomass and Biogas Investments



## Favourable Environment for Biogas Investments



Energy capacity of biogas varies between 0.98 to 4.7 MWh.

Potential biogas amount can be obtained from animal waste in Balıkesir is 500,000 m<sup>3</sup> from bovine waste, 60,000 m<sup>3</sup> from ovine waste and 240,000 m<sup>3</sup> poultry waste.



Potential biogas amount that can be obtained from animal waste in Balıkesir is;



Total potential biogas amount for Balıkesir province is calculated to be approximately 800,000 m<sup>3</sup>.

Converting these figures into electrical energy values:

- Minimum 30.8 kWh for 0.98 kWh value, and
- Maximum 150 kWh for 4.7 kWh value

These values can meet the heating and electricity demand of 200,000 to 500,000 residences.

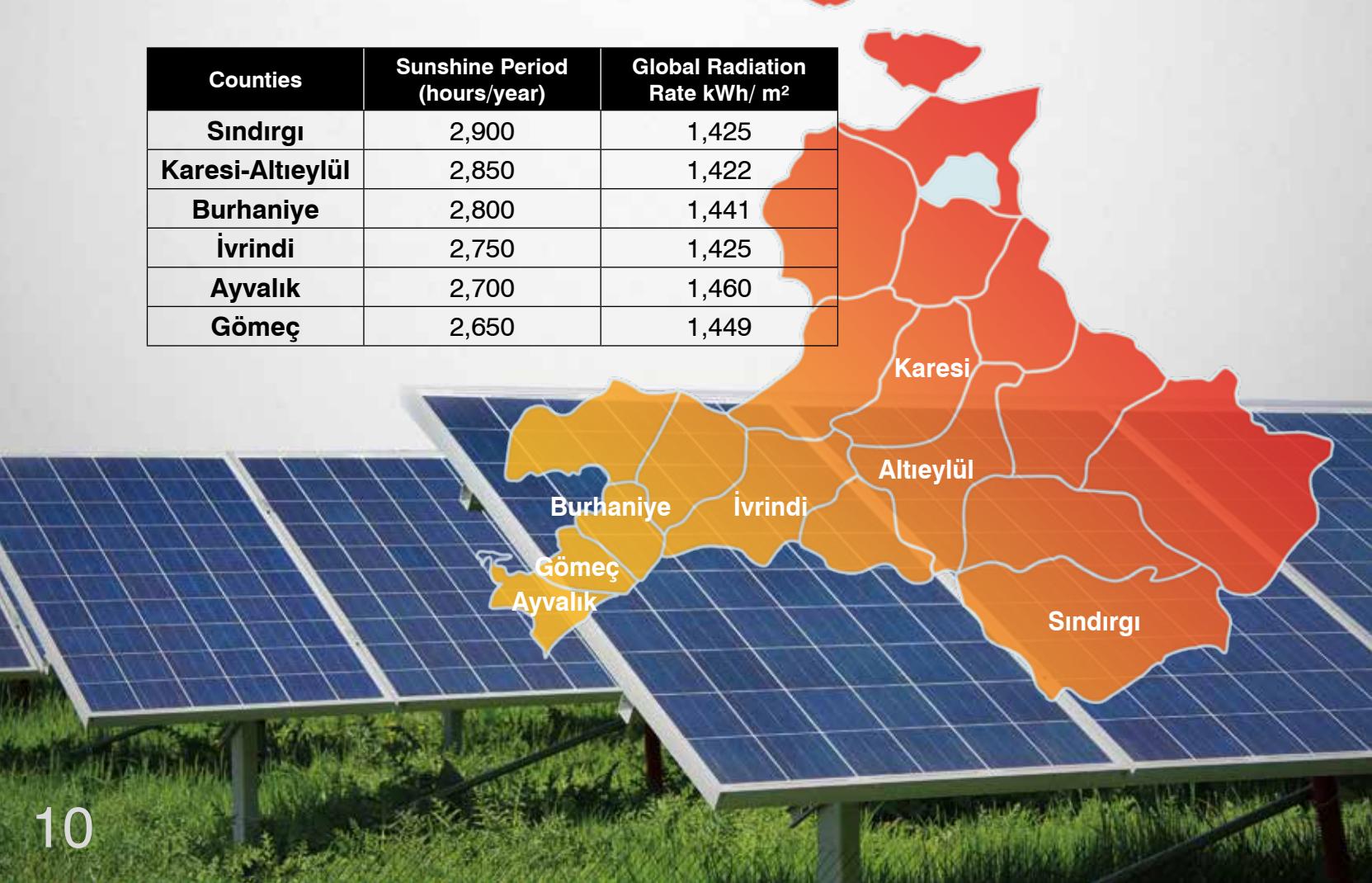


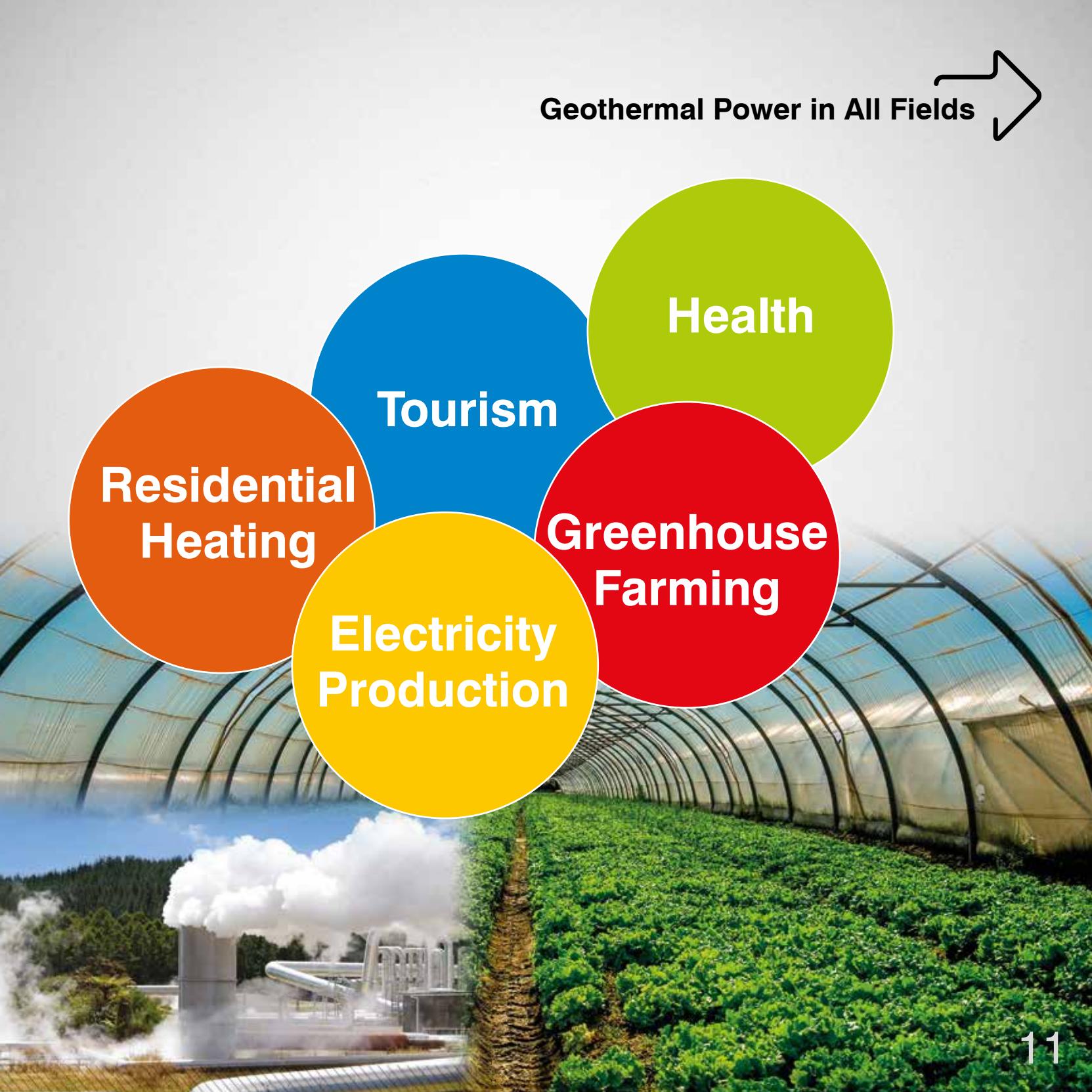
## Balıkesir for Highly Efficient SPP Investments

According to the map prepared for Balıkesir by using Turkey Solar Power Potential Atlas (GEPA) data, annual global radiation value on the horizontal plane is 1,422 kWh/m<sup>2</sup>. Within the province, Ayvalık rises to prominence with 1,460 kWh/m<sup>2</sup> annual global radiation rate. Ayvalık is followed by Gömeç with 1,449 kWh/m<sup>2</sup> and Burhaniye with 1,441 kWh/m<sup>2</sup>.

With regards to sunshine factor, which is quite important for solar power investments, Sındırgı, Altıeylül, Karesi, İvrindi, Burhaniye, Ayvalık ve Gömeç counties are suitable for solar power investments.

Counties	Sunshine Period (hours/year)	Global Radiation Rate kWh/ m <sup>2</sup>
Sındırgı	2,900	1,425
Karesi-Altıeylül	2,850	1,422
Burhaniye	2,800	1,441
İvrindi	2,750	1,425
Ayvalık	2,700	1,460
Gömeç	2,650	1,449





Geothermal Power in All Fields



Residential  
Heating

Tourism

Electricity  
Production

Health

Greenhouse  
Farming



**Many Regions with Geothermal Resources**

**ALTIEYLÜL**

**GÖNEN**

**BALYA**

**MANYAS**

**SINDIRGI**

**EDREMİT**

**BURHANIYE**

**SUSURLUK**

**GÖMEÇ**

**BİGADIÇ**

## Major Geothermal Regions of Balıkesir by Flow Rates and Temperatures



- ▶ **Edremit-Güre**  
Flow rate 4-50 l/sec, Temperature 33-68 °C
- ▶ **Edremit-Bostancı**  
Flow rate 2-86 l/sec, Temperature 42-60 °C
- ▶ **Gömeç Karaağaç- Burhaniye Pelitköy**  
Flow rate 5-30 l/sec, Temperature 33-35 °C
- ▶ **Gönen**  
Flow rate 20-80 l/sec, Temperature 70-84 °C
- ▶ **Gönen-Eksidere**  
Flow rate 2-6 l/sec, Temperature 32-43 °C
- ▶ **Manyas Kızık**  
Flow rate 10-15 l/sec, Temperature 42-58 °C
- ▶ **Balya-İlica**  
Flow rate 2-27 l/sec, Temperature 59-61 °C
- ▶ **Susurluk-Kepkekler-Yıldız**  
Flow rate 2-24 l/sec, Temperature 46-74 °C
- ▶ **Altıeylül -Pamukçu**  
Flow rate 7-18 l/sec, Temperature 53-58 °C
- ▶ **Bigadiç Hisarköy**  
Flow rate 2-60 l/sec, Temperature 52-98 °C
- ▶ **Sındırıcı-Hisaralan**  
Flow rate 7-32 l/sec, Temperature 33-98 °C



## **Advantageous Investment Environment in Renewable Energy Machinery and Equipment Production**

Technological machinery and equipment use is highly important in renewable energy sector that has a higher share in meeting increasing energy demand each passing day.

Being the leader in renewable energy production, Balikesir is at an advantageous position for machinery and equipment investments targeting renewable energy sector.

In the province, region 5 incentives are applied to turbine, generator and wind investments required for renewable energy production. These supports enable production of renewable energy equipment locally and support national production.

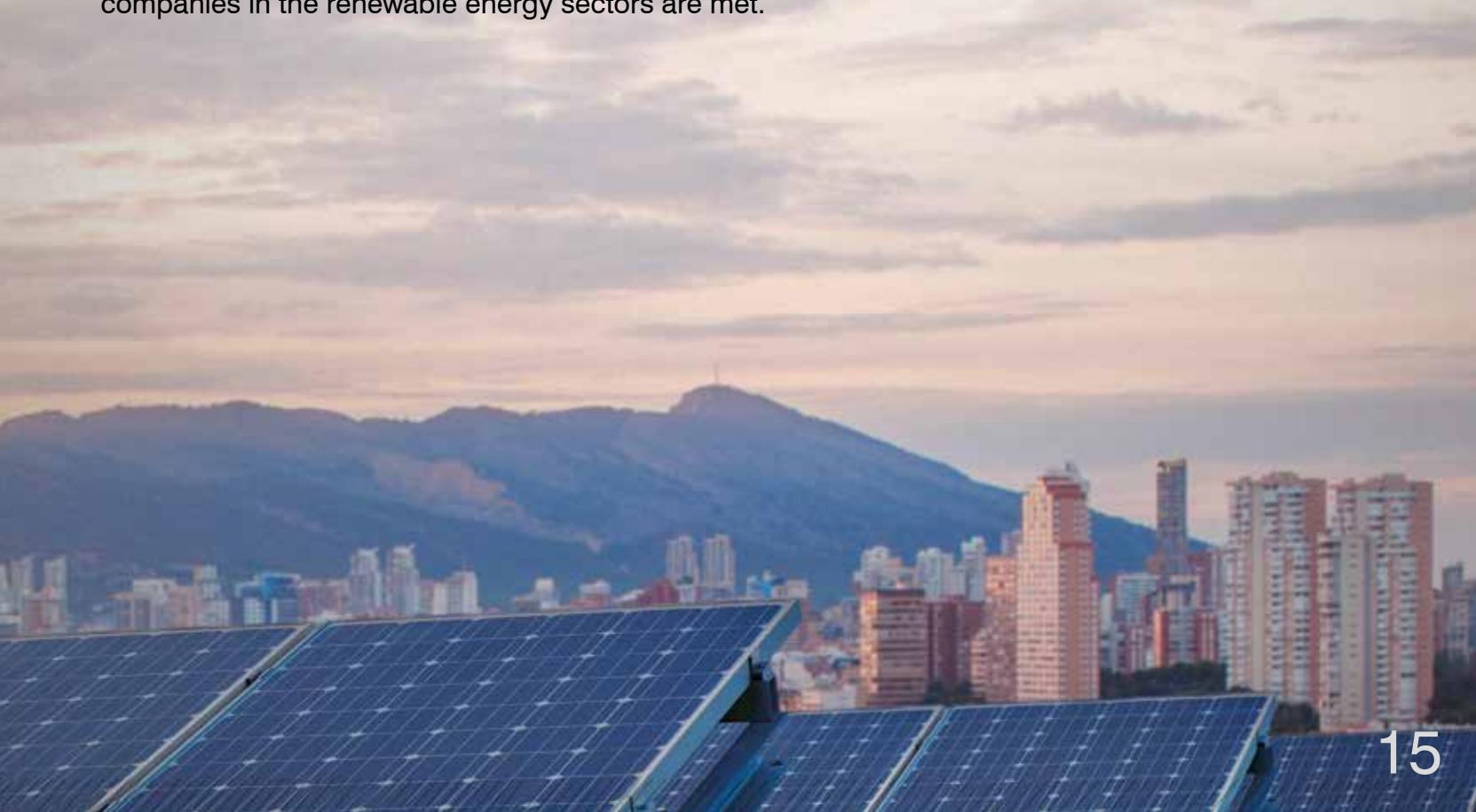


## The Only Wind Power Education Center in Turkey

Located in the Balıkesir University Continuing Education Centre, the only Wind Power Education Center in Turkey is operational in Balıkesir, funded by EU funds with the initiatives of South Marmara Development Agency and Balıkesir University.

Supported by wind power labs and several classrooms, the workforce needed by the energy sector is trained in 2 month education programmes, and in average 70 applicants are allowed to register for the program at a time.

Another initiative by the Agency and the University is the foundation of a Renewable Energy Education Center, which is also in the Continuing Education Centre, and starting programmes on wind, solar and biogas energy systems. Thanks to these programmes, skilled labor needs of the companies in the renewable energy sectors are met.

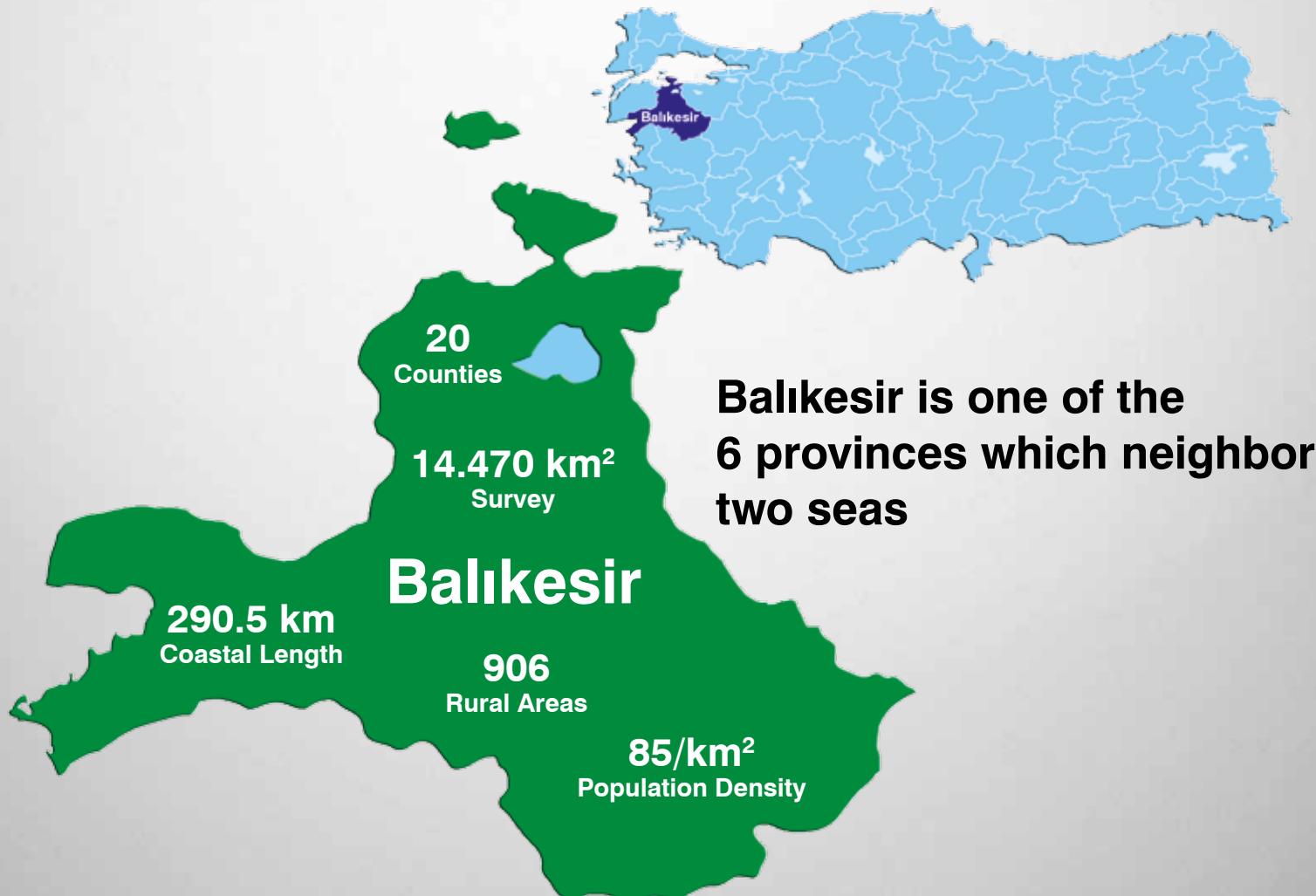




## Geographical Location

Located in the south of Marmara Region, Balıkesir is renowned for its proximity to metropoles such as İstanbul, İzmir and Bursa. It is directly linked to all port cities of Turkey through Bandırma Port, which makes it the crossroads between Turkey and World markets.

Neighboring both Marmara and Aegean Seas makes Balıkesir one of the 6 provinces which neighbor two seas.



## Population Dynamics of the Province

With its population of approximately 1.2 million, Balikesir has 1.5% of the population of Turkey.

**Total labor force of  
837,517 Persons**

**Expected population in 2025  
1,272,000 Persons**





## Education in Balıkesir

With its education infrastructure, the province has the intermediate staff and qualified labor resources required by all sectors. Balıkesir University and Bandırma Onyedi Eylül University provide education with 19 faculties.

**The province has 1,100 pre-undergraduate education institutions.**

► 100% schooling rate in primary schools ► 90% schooling rate in Secondary Education

✓ 2 Universities ✓ 19 Faculties ✓ 5 Graduate Schools

✓ 20 Vocational Graduate Schools ✓ 94 Departments



**With over 50,000 students enrolled in universities, education is improving.**

There are 31 hospitals spread all over the province, 23 of them being public hospitals, 7 private hospitals and 1 research and training hospital. 3 of these hospitals are also dental and oral health centers.

### In Balıkesir,

- 20 Community Health Centers
- 142 Family Health Centers
- Integrated Public Hospitals in 4 counties
- 1 Community Health Laboratory

are in service.





A high-angle, nighttime aerial photograph of a city. The urban area is densely packed with lights, appearing as numerous small yellow and white dots. A major river or highway cuts through the city, its path illuminated by a series of larger, more continuous lights. The surrounding landscape is dark, providing a stark contrast to the bright city lights.

**Crossroads for Metropoles**

**Strong Logistics  
Infrastructure Advantages**

**Total of 27 Million Population  
in Neighboring Provinces...**

# A Strong Port in Product Shipment: “Bandırma”

All kinds of freight can be handled at the Port of Bandırma, which is connected to all the cities of Turkey via railway lines. Direct transportation to Gökköy Logistics Center is possible by rail.





**35,000 Tons  
Storage  
Capacity**

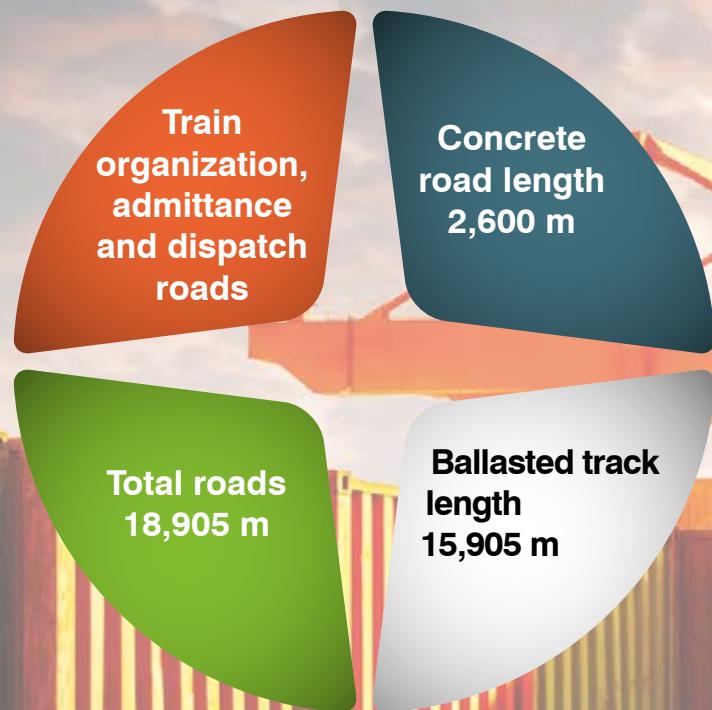
**20  
Simultaneous  
Ship Loading  
and Unloading  
Capacity**

**350,000  
TEU/year  
Containers**

**12 Vertical Silo  
(warehouse)  
70,000 Tons  
Capacity**

# Gökköy Logistics Center

- Bandırma Port 110 Km
- İzmir Port 230 Km



## GÖKKÖY LOGISTICS CENTER;

- 211,000 m<sup>2</sup> Operation Area
- Container loading, unloading, transfer and storage areas

# Logistics Infrastructure of Balıkesir Grows Each Passing Day



## Grand Anatolia Logistics Organizations Project (BALO)

Loads taken from load collection centers in Middle and Western Anatolia, such as Gökköy Logistics Center, will reach load collection center in Bandırma, which is a crossroads, with block trains; then will reach Tekirdağ with train ferries and connect to the international railroad network and reach Europe through linking road newly built between Tekirdağ and Muratlı.

**Block trains leaving Kapıkule border gate will reach logistics centers in Wien, Nürnberg, Stuttgart, Köln and Lyon.**



## Koca Seyit Airport

Built in 1997, Koca Seyit Airport enables transportation from metropoles such as Ankara and Istanbul to every location in Balıkesir.

- ▶ **23,600 m<sup>2</sup> terminal**
- ▶ **2 Aprons with capacity of 6 planes**
- ▶ **Quick service with 22 Counters**
- ▶ **Over 20,000 Flights with 150 International Flights**
- ▶ **Over 510,000 Passengers in Domestic and International Flights**
- ▶ **Accessible and Green Airport Certified**



## 4-Hour Transportation Ring

The “4 Hour Transportation Ring”, which will make Balıkesir a Logistics center, will enable traveling around the Marmara Sea in 4 hours; integrate with new transportation projects and together with the BALO project, will facilitate Balıkesir’s open up to Europe.





# Grand Transportation Projects Connected to Balıkesir



## ► Gebze-Orhangazi-İzmir Highway - Osmangazi Bridge

The highway decreased travel time between İstanbul and İzmir to 3.5 hours and is 433 km long. With Balıkesir located in the center, the completion of the project decreased İstanbul-Balıkesir to 2 hours and İzmir and Balıkesir to 1.5 hours. 2,682 meter long Osmangazi Bridge has a central span of 1,550 meters and is the 4th bridge with largest central span around the world. Entire highway is operational since August 2019.

## ► Tekirdağ-Çanakkale-Balıkesir Highway Project - 1915 Çanakkale Bridge

This project will create routes alternative to Bosphorus crossing for transportation from Aegean and Inner Anatolia Regions to Thrace and Europe.

Connection of Tekirdağ-Çanakkale-Balıkesir Highway to Gebze-İzmir Highway near Balıkesir will create an additional momentum for tourism and other sectors.

## ► Bandırma-Balıkesir - İzmir High Speed Train Project

The project will act as the passenger and cargo line connecting Aegean Region to Europe through Bandırma and Tekirdağ ports. It will also connect to Ankara-İstanbul route on Bursa connection.

## ► Northern Marmara Highway - Yavuz Sultan Selim Bridge

Widest suspended bridge of the world with its 59 meters width and the longest bridge with rail transport on the world with its 1,408 meters of main span.

## ► Bandırma-Bursa-Bilecik High Speed Train Line Project

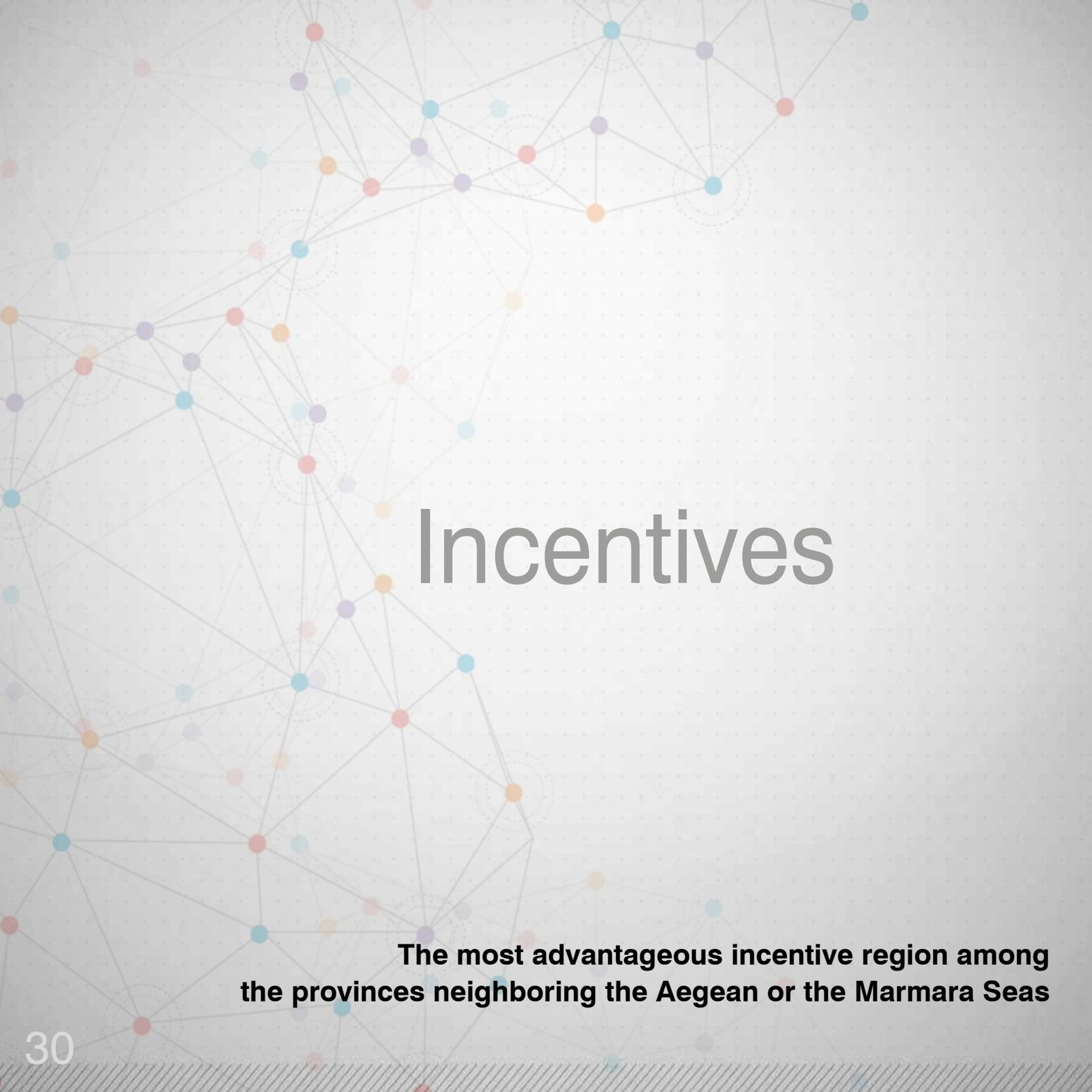
With the completion of the 215 km project, Bandırma will be connected to Bursa, which is a metropolis with a fully developed industry, through railroad.

## ► Tekirdağ-Çanakkale-Bandırma Railroad Project

Railroad project that will serve passenger and cargo transport between Bandırma and Çanakkale will start from Bandırma and reach Tekirdağ through Çanakkale, over Biga and Karabiga, covering Bandırma Organized Industrial Zone and Gönen Organized Industrial Zone.

## ► Bay Light Rail System Project

With this project planned between Altınova and Küçükkyuyu, a comfortable and rapid transportation will be provided at Bay Line that has a high tourism potential.



# Incentives

**The most advantageous incentive region among  
the provinces neighboring the Aegean or the Marmara Seas**

Ministry of Industry and Technology provides incentives for investments in order to reduce regional development differences, increase value added investments, improve production and employment figures, and expand R&D efforts which increase international competitive power.

## REGIONAL INCENTIVES

### ► Customs Tax Exemption

Machinery and equipment to be imported for the investment which will benefit from this incentive are exempt to customs tax.

### ► VAT Exemption

Machinery and equipment to be purchased for the investment which will benefit from this incentive are exempt from VAT.

### ► Insurance Premium Employer Share Support

Insurance premium employer share accrued as a result of additional employment created within the scope of the investment is paid by the Ministry; not to exceed minimum wage at the time per employee.

### ► Tax Reduction

In investments subject to incentives, income and corporate tax are paid with reductions at rates stipulated separately for regions the investment is made in.

### ► Investment Site Allocation

In investments realized with incentive certificates, free site allocation can be made in order to hasten the investment in some cases.

### ► Interest Support

In investment loans with at least one year maturity to be used within the scope of regional investment incentive, interest reduction support is provided.

**Region**  
5 incentives to investments in turbine, generator and blade production targeting renewable energy



## Ministry of Energy and Natural Resources

Electricity produced from renewable energy sources is considered to be within the scope of high priced public purchase commitment, which means the state will purchase all the electricity produced by the investor's renewable energy facilities. This purchase commitment extends up to 10 years.

Furthermore, in case domestic technology, machinery and equipment is used in renewable energy investments, higher prices compared to unit prices in the purchase commitment are applied, which increases the investor's profit to a great extent.



# Agriculture and Rural Development Support Institution (TKDK)

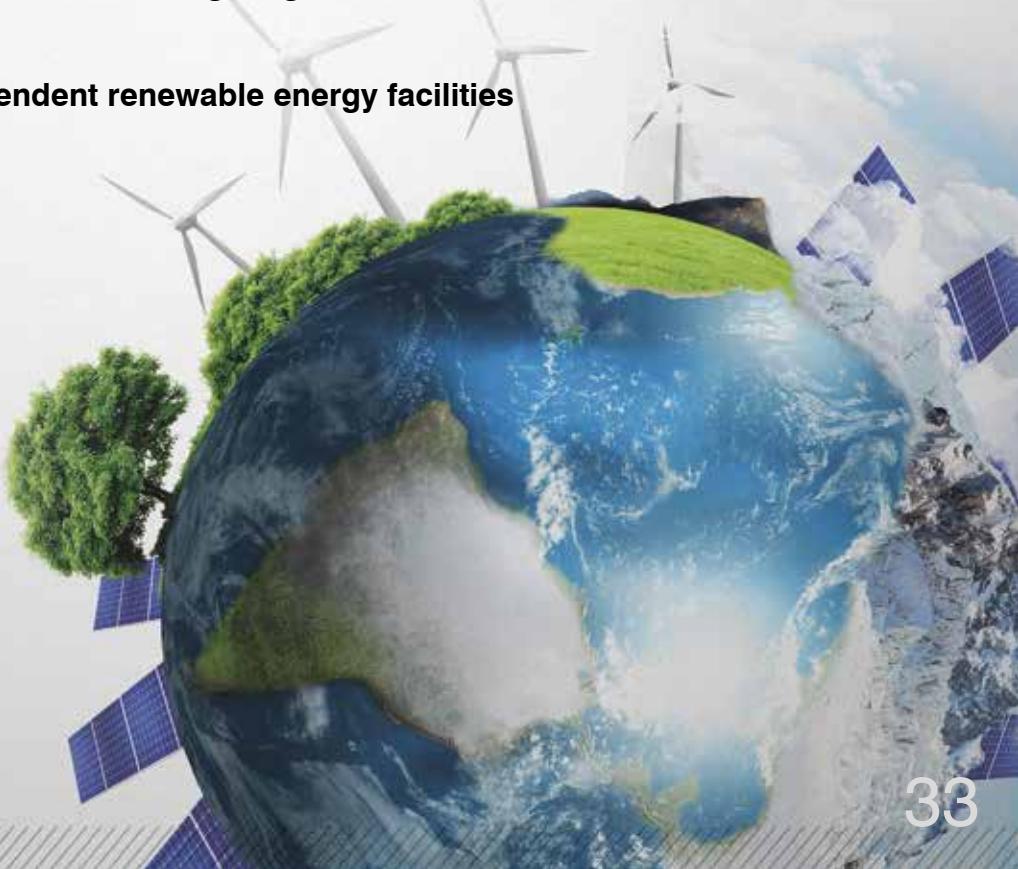


TKDK supports renewable energy sector within its investment program.

Within the scope of the program, TKDK provides financial support in solar, wind, geothermal and biomass energy productions. License-free businesses for up to 1 MW installed power are provided with non-repayable grant support.

Additionally, TKDK provides support to real or legal persons with commercial aims within the scope of “Diversifying Economic Activities and Business Development” support in installation of renewable energy facilities for only electricity production and sale.

- ▶ **Support for solar power systems, wind power, geothermal power and biomass systems**
- ▶ **Support for renewable energy investments targeting businesses to meet their own energy consumption**
- ▶ **Support for installation of Independent renewable energy facilities**





## World Bank

World Bank provides loans to renewable energy production and energy efficiency projects initiated by private enterprises operating in renewable energy sector.

The loan provided covers 75% of the total amount of the investment. The maturity of the loan is determined according to the productivity analysis of the project. The investors are obliged to meet the minimum requirements stipulated by the World Bank and completed permit and license processes regarding the investment to be eligible for this loan.



## South Marmara Development Agency Supports

South Marmara Development Agency (GMKA) provides grants to companies registered to Çanakkale and Balıkesir through “Call for Proposals” method.

Call for proposals is a support type where companies within a specific support program can submit project proposals subject to specified subjects and conditions. While the support programs, which can be applied for in certain times of the year, have so far provided companies with support in producing machinery and equipment in renewable energy sector, as well as projects which aim to enable enterprises meet their own energy needs using renewable energy sources; subjects and sectors to be supported can change each year depending on the program.





## **South Marmara Development Agency is by Your Side with Balıkesir Investment Support Office**

South Marmara Development Agency Balıkesir Investment Support Office operates to improve investment environment of the province, attracting investment by promoting investment environment through various media and to support investors that decided to invest in the province in investment processes.

**Within the scope of these activities Investment Office;**

- ▶ Informs investors in areas they need
- ▶ Conducts analyses, reports, inventory studies on business and investment environment of the province and share these studies with investors
- ▶ Supports investors in finding lands suitable for investment
- ▶ Follows permit and license processes for investments
- ▶ Organizes events promoting investment environment
- ▶ Prepares and practices strategies to improve business and investment environment of the province and improve coordination between the agencies the investor deals with undertakes studies

**Strong Communication  
Network Between  
institutions**

**Qualified Staff**

**Strong Institutional  
Structure**





## Investment Support Office Services

### ***Balıkesir Investment Support Office***

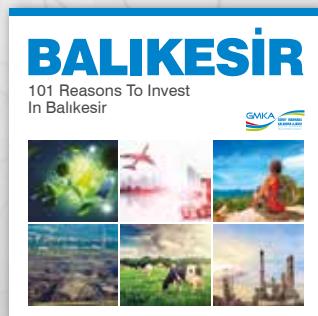
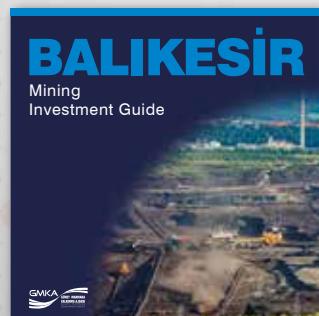
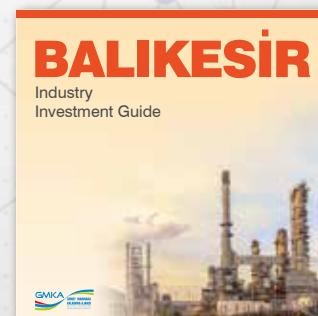
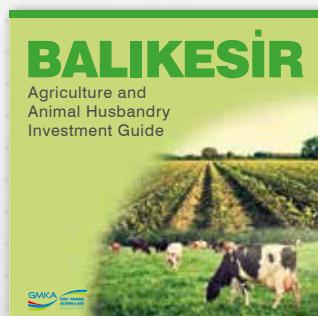
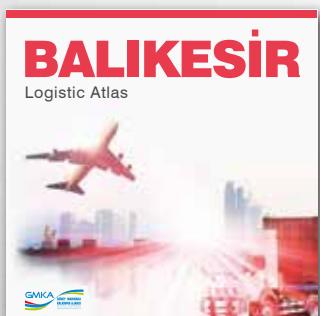
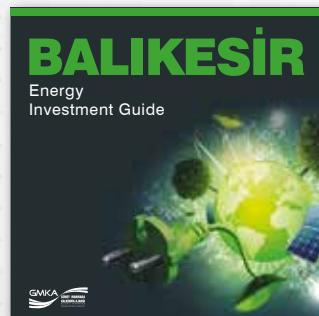
*Works to improve business and investment environment of the province, promote investment opportunities to investors to attract more investments and to direct and inform investors.*

***Balıkesir Investment Support Office serves the investors with;***  
*Qualified staff*  
*Strong institutional structure*  
*Strong communication network between institutions.*

## Introducing the Provincial Investment Climate



*In order to promote business and investment environment of the province, and to attract investors, events such as domestic and international conferences, fairs, seminars, meetings, business trips are organized and participated in. Written or visual materials are prepared to promote investment opportunities of the province to investors.*





## Inventory of Lands Available for Investment

Agency supports investors in finding suitable lands for their investments. Furthermore, landowners who wish to sell or rent their lands to investors visit the Agency and enrich the land inventory.

PUBLIC LANDS

PRIVATE LANDS

ORGANIZED  
INDUSTRIAL ZONES



## Informing-Guiding Services at Investment Support Office

Balıkesir Investment Support Office informs and guides investors in issues such as priorities, scope, eligibility conditions, application documents for fiscal and technical supports by public and private sector at local or central level.

Additionally investors are provided with information and guidance services they need before and during investment processes, as well as during operation phase.

Researches are conducted on prominent sectors in the province; data is gathered on topics which influence investment decisions such as raw materials, energy, logistics, and labor force; and put into the use of investors.

Various trainings are provided under supervision of qualified trainers in line with the needs of the enterprises operating in Balıkesir.



## Investments Followed Centrally

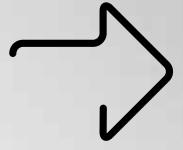
By following the bureaucratic processes centrally in the name of investors, permits and licenses for the investors are obtained as quickly as possible.

# Environmental Impact Assessment

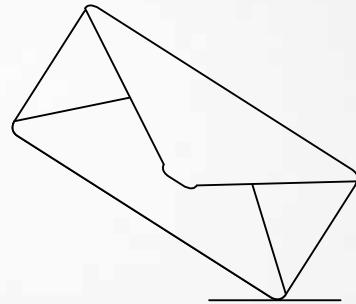


# Work Permit





# **Call Letter**



# **License**

# **Connection Agreement**

## Relevant Institutions

Energy and Natural Resources  
General Directorate of Energy Affairs



**Telephone:** (0312) 212 64 20  
**Web address:** eigm.gov.tr

Balıkesir Governorship



**Telephone:** (0266) 245 13 01  
**Web address:** balikesir.gov.tr

Balıkesir Chamber of Industry



**Telephone:** (0266) 281 11 80  
**Web address:** bso.org.tr

Energy Market Regulatory Authority



**Telephone:** (0312) 201 40 00  
**Web address:** epdk.org.tr

Balıkesir Metropolitan Municipality



**Telephone:** (0266) 239 15 10  
**Web address:** balikesir.bel.tr

Balıkesir Chamber of Commerce



**Telephone:** (0266) 244 68 68  
**Web address:** bato.org.tr

## Relevant Institutions

### South Marmara Development Agency



**Telephone:** (0266) 246 10 00  
**Web address:** gmka.gov.tr

### Balıkesir Provincial Directorate of Industry and Technology



**Telephone:** (0266) 243 02 52  
**Web address:** balikesir.sanayi.gov.tr

### Agriculture and Rural Development Support Institution - Balıkesir Provincial Coordinator



**Telephone:** (0266) 245 58 61  
**Web address:** balikesir.tkdk.gov.tr

### Ministry of Industry and Technology



**Telephone:** 444 61 00  
**Web address:** sanayi.gov.tr

### Balıkesir Provincial Directorate of Environment and Urbanization



**Telephone:** (0266) 224 47 15  
**Web address:** balikesir.csb.gov.tr

### World Bank-Turkey Office



**Telephone:** (0312) 459 83 00  
**Web address:** worldbank.org.tr

## Relevant Institutions

General Directorate of Mineral Research and Exploration



**Telephone:** (0312) 201 10 00

**Web address:** mta.gov.tr

Energy and Natural Resources General Directorate of Mining and Oil Affairs



**Telephone:** (0312) 212 80 00

**Web address:** mapeg.gov.tr

Turkish Wind Energy Association



**Telephone:** (0312) 474 02 74

**Web address:** tureb.com.tr

Turkey Sustainable Energy Financing Facility



**Telephone:** (0216) 340 00 20

**Web address:** turseff.org

Bandırma Onyedi Eylül University



**Telephone:** (0266) 717 01 17

**Web address:** bandirma.edu.tr

Balıkesir University



**Telephone:** (0266) 612 14 00-08

**Web address:** balikesir.edu.tr





**GÜNEY MARMARA  
KALKINMA AJANSI**  
SOUTH MARMARA  
DEVELOPMENT AGENCY