

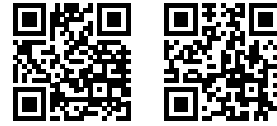


ÇANAKKALE

ENERGY SECTOR INVESTMENT GUIDE



Invest in Çanakkale



www.investincanakkale.com
www.gmka.gov.tr

Study in Brief

With its emerging economy, Turkey is becoming one of the most vibrant hubs in the global economy, being able to offer many advantages to investors thanks to its geographical position, natural resources and qualified labor force. Based on its emerging economy and the benefits offered to investors, Turkey now ranks among the most popular countries in which to invest among global-scaled enterprises.

Çanakkale is known for its ability to host sustainable eco-friendly investments, and for the many advantages on offer, such as a qualified labor force, land-air-sea transportation, its natural resources and its strategic location close to industrial hubs. The aim of this study is to promote the existing investment atmosphere in Çanakkale so as to increase its share of investments in Turkey, which has been a center of attraction in this regard.

This guide addresses in detail the renewable energy sector, explaining the advantages to be offered in return for investments in Çanakkale, which are examined under relevant titles. From the advantages that Çanakkale offers in the energy sector to its logistic opportunities, and from the regional incentives offered by the Ministry of Economy to the local contributions provided by the South Marmara Development Agency, this guide explains in detail the many benefits to investors in Çanakkale.

Apart from this investment guide, guidelines are prepared for the sectors of tourism, agriculture and livestock, industry.

The South Marmara Development Agency is able to offer support services to investors thanks to its technical infrastructure and expert staff, in addition to this guide, in order to promote the investment atmosphere in the region. It can also be considered a solution partner in terms of the investments to be made in Çanakkale. We hope that this guide that we have prepared for you considering private sector sensitivities will be helpful to you, distinguished investors, and we encourage you to take advantage of the comprehensive support services provided by the Investment Support Office while work on your investments.

SOUTH MARMARA DEVELOPMENT AGENCY

Right Address for Renewable Energy Investments

Çanakkale is rich in renewable energy resources, offering strong wind energy, solar energy, geothermal energy and biogas potential.

The province is located in a suitable geography for wind and solar energy investments, and produces sufficient agricultural and animal waste with high calorie values to encourage biogas investments.



Wind Energy



Solar Energy



Geothermal Energy



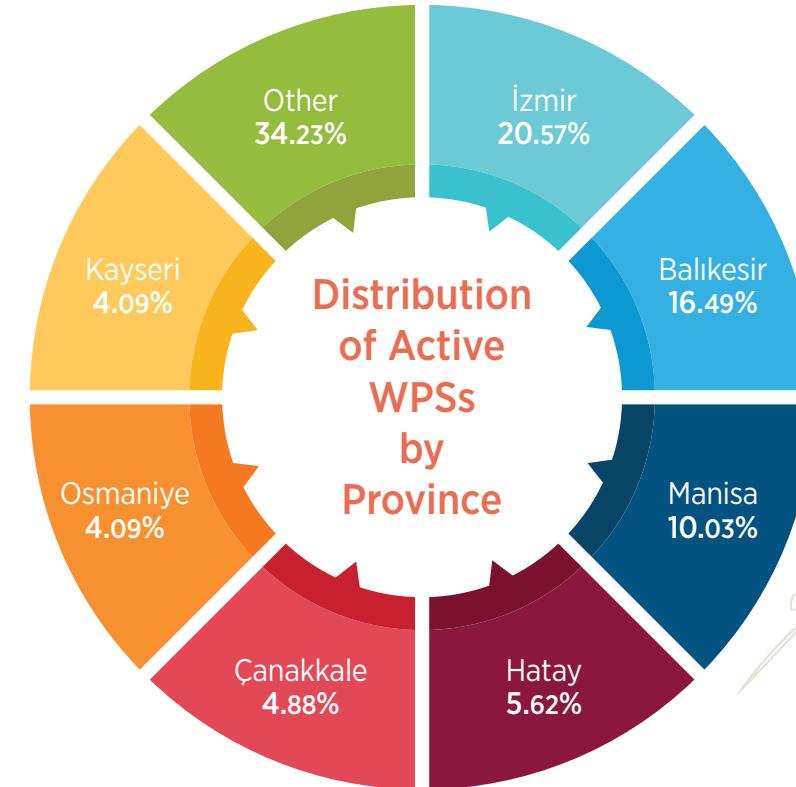
Biogas

Pioneer in Wind Energy Investments

Around 5 percent of the active wind power stations (WPSs) in Turkey are in Çanakkale, providing a total installed power of 316.5 MW.

The total installed capacity of energy investments in construction process is 3 MW, representing 0.37 percent of Turkey's output in general in terms of the WPSs under construction.

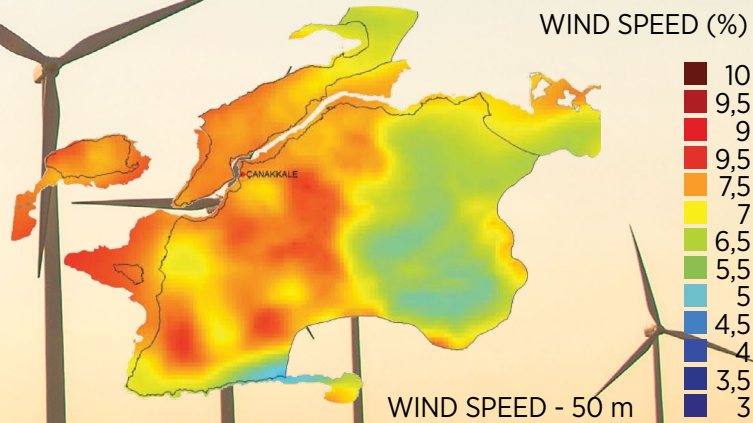
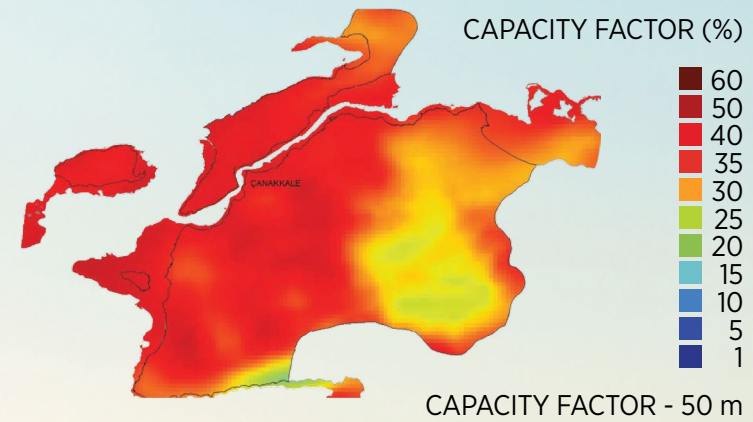
The total area set aside for wind power stations in the Çanakkale Province is 2,602.51 km². The maximum installed capacity has been determined as 13,012.56 MW.



* Turkey Wind Energy Statistics Report (July 2017).

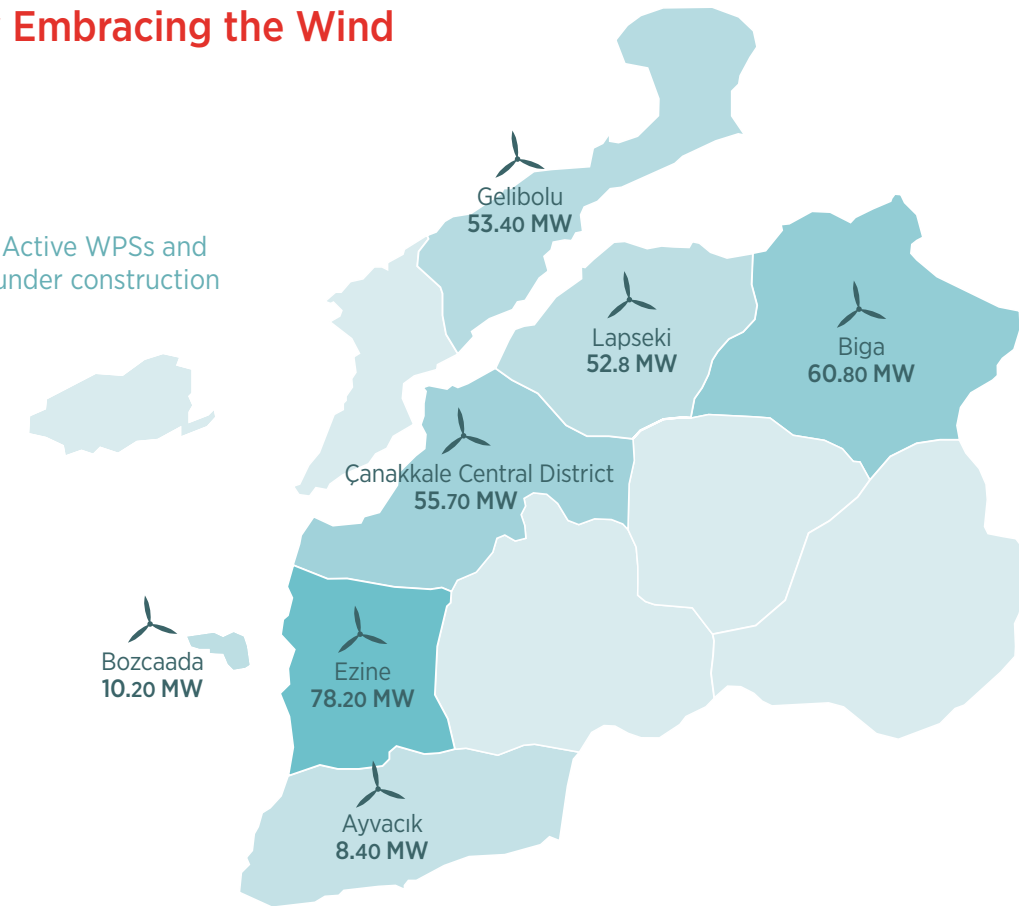
Wind Energy Leader

The physical geography of Çanakkale fulfills the minimum criteria of 7 m/s wind speed at 50 meters and a 35 percent capacity factor, which are vital when it comes to making WPS investments.



A City Embracing the Wind

Power of Active WPSs and of those under construction



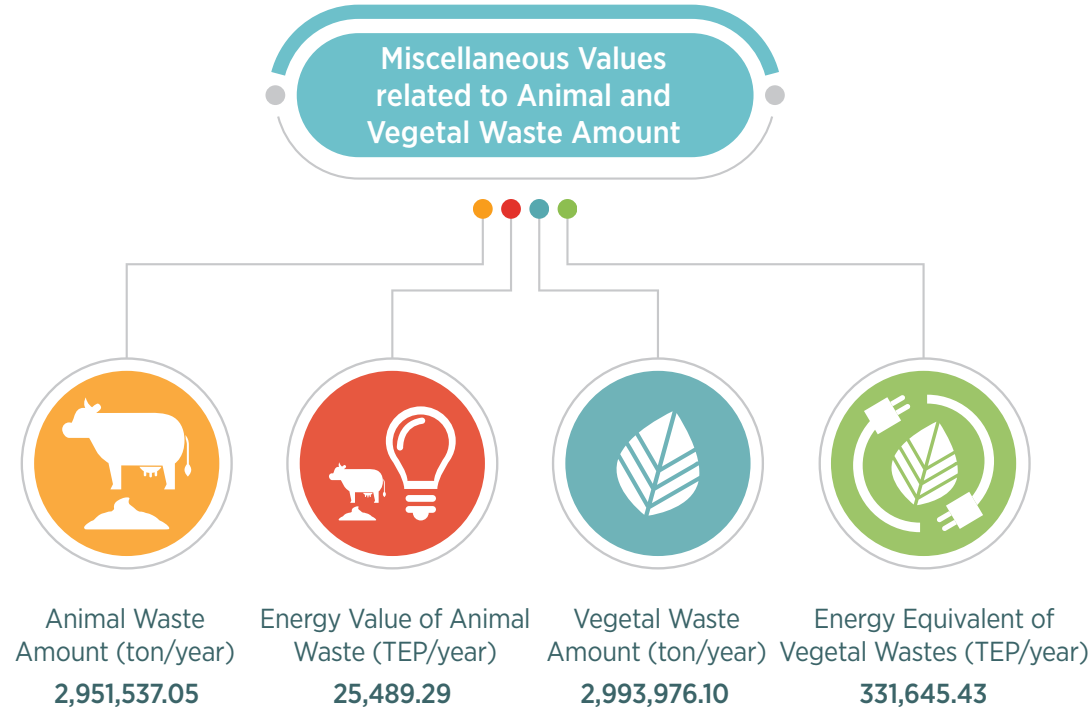
Distribution of WPSs in operation, under construction and licensed by districts

| Districts | WPSs in operation | WPSs under construction | Licensed WPSs | Total Installed Power (MW) |
|------------------|-------------------|-------------------------|---------------|----------------------------|
| Ayvacak | 5.4 | 3 | | 8.4 |
| Biga | 60.8 | | | 60.8 |
| Bozcaada | 10.2 | | | 10.2 |
| Gelibolu | 14.9 | 38.5 | 277.0 | 330.4 |
| Ezine | 20.8 | 57.4 | | 78.2 |
| Central District | 55.7 | | 77.0 | 132.7 |
| Lapseki | 52.8 | | 99.0 | 151.8 |

* Turkey Wind Energy Statistics Report (July 2017).

Waste Recycled into Energy through Biogas Investments

In Çanakkale, animal, vegetal and urban organic wastes are utilized as resources for biogas investments into the supply of climate-friendly sustainable energy.



* Turkey biomass energy potential atlas, accessed September 2017

Convenient Environment for Biogas Investments

Energy Value of Animal Waste by District (TEP/year)

- The number of districts within the range of 0.05 and 263.84 is 2
- The number of districts within the range of 263.84 and 585.25 is 1
- The number of districts within the range of 585.25 and 1,023.91 is 1
- The number of districts within the range of 1,023.91 and 2,081.09 is 5
- The number of districts within the range of 2,081.09 and 28,559.89 is 3



Vegetable Energy Value by Districts (TEP/year)

- The number of districts within the range of 0.17 and 1,705.07 is 1
- The number of districts within the range of 1,705.07 and 5,344.19 is 1
- The number of districts within the range of 5,344.19 and 11,146.15 is 2
- The number of districts within the range of 11,146.15 and 27,874.90 is 6
- The number of districts within the range of 27,874.90 and 233,091.85 is 2

Energy Value of Urban Organic Wastes by District (TEP/year)

- The number of districts within the range of 30.00 and 250.00 is 3
- The number of districts within the range of 250.00 and 520.00 is 0
- The number of districts within the range of 520.00 and 1,000.00 is 5
- The number of districts within the range of 1,000.00 and 2,690.00 is 3
- The number of districts within the range of 2,690.00 and 30,060.00 is 1



* Turkey biomass energy potential atlas, accessed September 2017

Çanakkale for High Efficiency Solar Energy Plant Investments

When Çanakkale is considered district by district, Bayramiç stands out with a 1,410 kWh/m² annual average global radiation value, followed by Yenice with 1,408 kWh/m² and Çan with 1,397 kWh/m² values respectively.

Ezine, Ayvacık, Çanakkale Central District, Eceabat and Bayramiç districts are among the leading districts in the province in terms of insolation, which is very important for solar energy investments.

Average Annual Insolation Duration and Annual Average Global Radiation Values of the Districts of Çanakkale

| Districts | Average Annual Insolation Time (Hour) | Annual Average Global Radiation Value (KWh/m ² - year) |
|------------------|---------------------------------------|---|
| Ezine | 3,188 | 1,300 |
| Ayvacık | 3,165 | 1,356 |
| Central District | 2,838 | 1,375 |
| Eceabat | 2,835 | 1,279 |
| Bayramiç | 2,810 | 1,410 |
| Çan | 2,744 | 1,397 |
| Lapseki | 2,726 | 1,378 |
| Gelibolu | 2,699 | 1,368 |
| Yenice | 2,683 | 1,408 |
| Biga | 2,671 | 1,376 |

Çanakkale Solar Energy Potential Atlas



Total Solar Radiation KWh/m² _ year



* Solar energy potential atlas, accessed September 25, 2017.

Geothermal Energy in Every Field



Numerous Geothermal Fields of Çanakkale

The surface temperature values of geothermal energy resources in Çanakkale vary between 23 and 96.2°C. The geothermal resources located in the Tuzla quarter of the Ayvacık district have the highest recorded temperatures in Çanakkale, at 96.2°C surface and 174°C pit bottom temperatures.



Favorable Investment Environment for the Manufacture of Renewable Energy Machinery and Equipment

The use of technological machinery and equipment is particularly important in the renewable energy sector, and is particularly important in meeting the ever-increasing energy needs.

Çanakkale has distinguished itself in the production of renewable energy, and has maintained an important role in investments for the production machinery and equipment for the renewable energy sector.

In Çanakkale, 5th Region incentives are applied to investments into turbines, generators and blades for renewable energy production. Regional incentives are implemented.

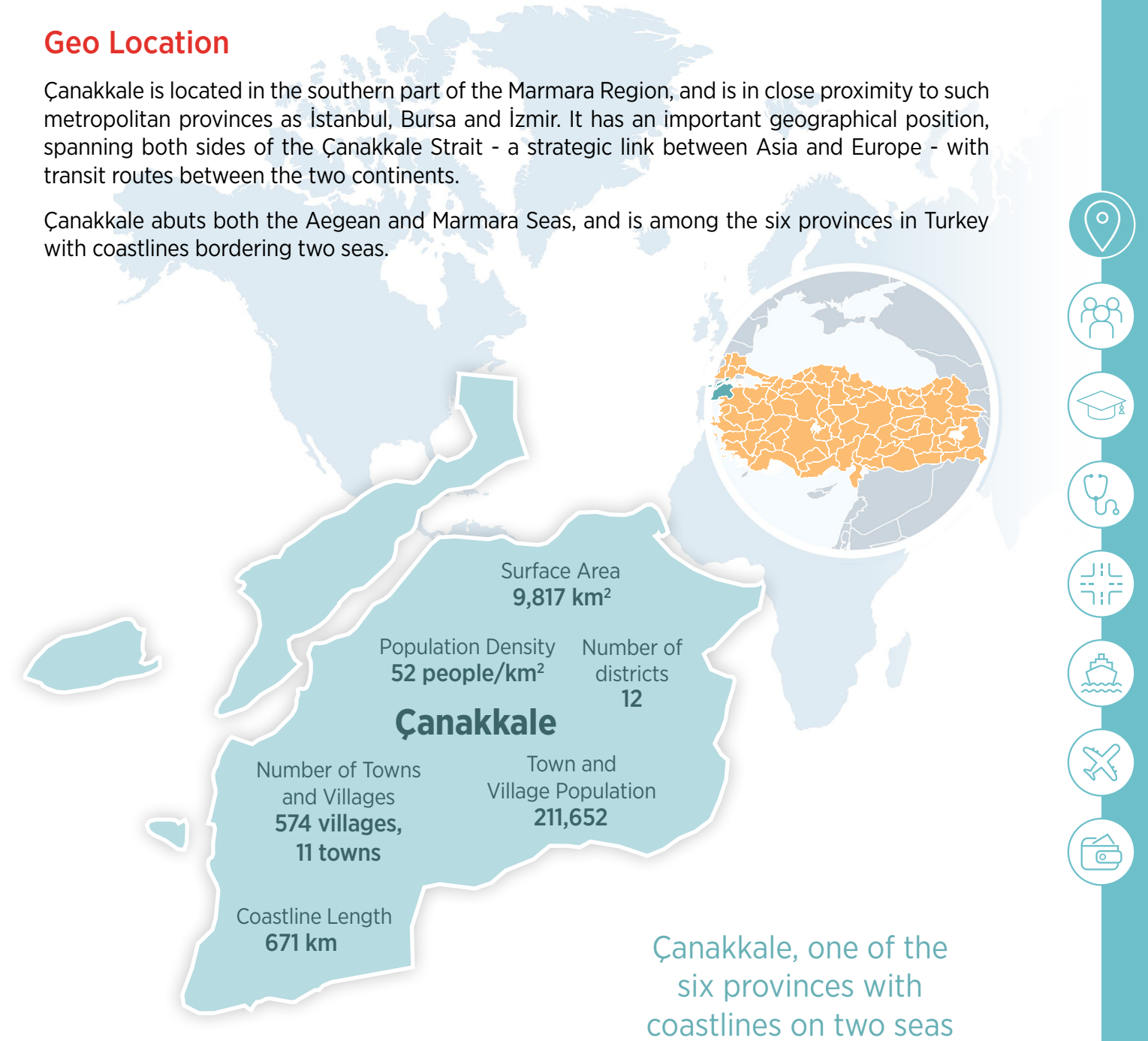


ÇANAKKALE AT A GLANCE

Geo Location

Çanakkale is located in the southern part of the Marmara Region, and is in close proximity to such metropolitan provinces as İstanbul, Bursa and İzmir. It has an important geographical position, spanning both sides of the Çanakkale Strait - a strategic link between Asia and Europe - with transit routes between the two continents.

Çanakkale abuts both the Aegean and Marmara Seas, and is among the six provinces in Turkey with coastlines bordering two seas.



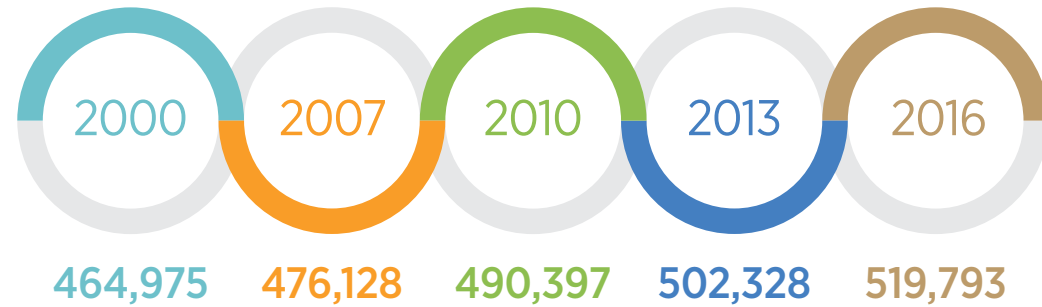
Population Dynamics

According to 2016 data, Çanakkale has a population of 519,793, constituting 0.65 percent of Turkey's population.

Estimated
2040 Population
836,290 people

Labor Force
Participation Rate (2016)
48.6%

Employment Rate (2016)
45.3%



Education in Çanakkale

Thanks to its educational infrastructure, Çanakkale has the necessary workforce and qualified human resources required by many sectors.



Çanakkale
Onsekiz Mart
University

With a student population exceeding
50,000, a **University City Çanakkale**

14 faculties

8 colleges

13 vocational schools

4 institutes

32 research and application centers

More than 350 educational
institutions operate in Çanakkale

Schooling Rates

Elementary School
Schooling Rate
90%

Junior High School
Schooling Rate
95%

High School
Schooling Rate
88%

A New Innovation Hub: Çanakkale



ÇOMÜ TECHNOPARK expands new horizons
in R&D and innovation in Çanakkale



ÇOMÜ Technopark, as a center for research, development and innovation, value added products are introduced, and academic, economic and social structures are integrated, offers a variety of opportunities for investors.

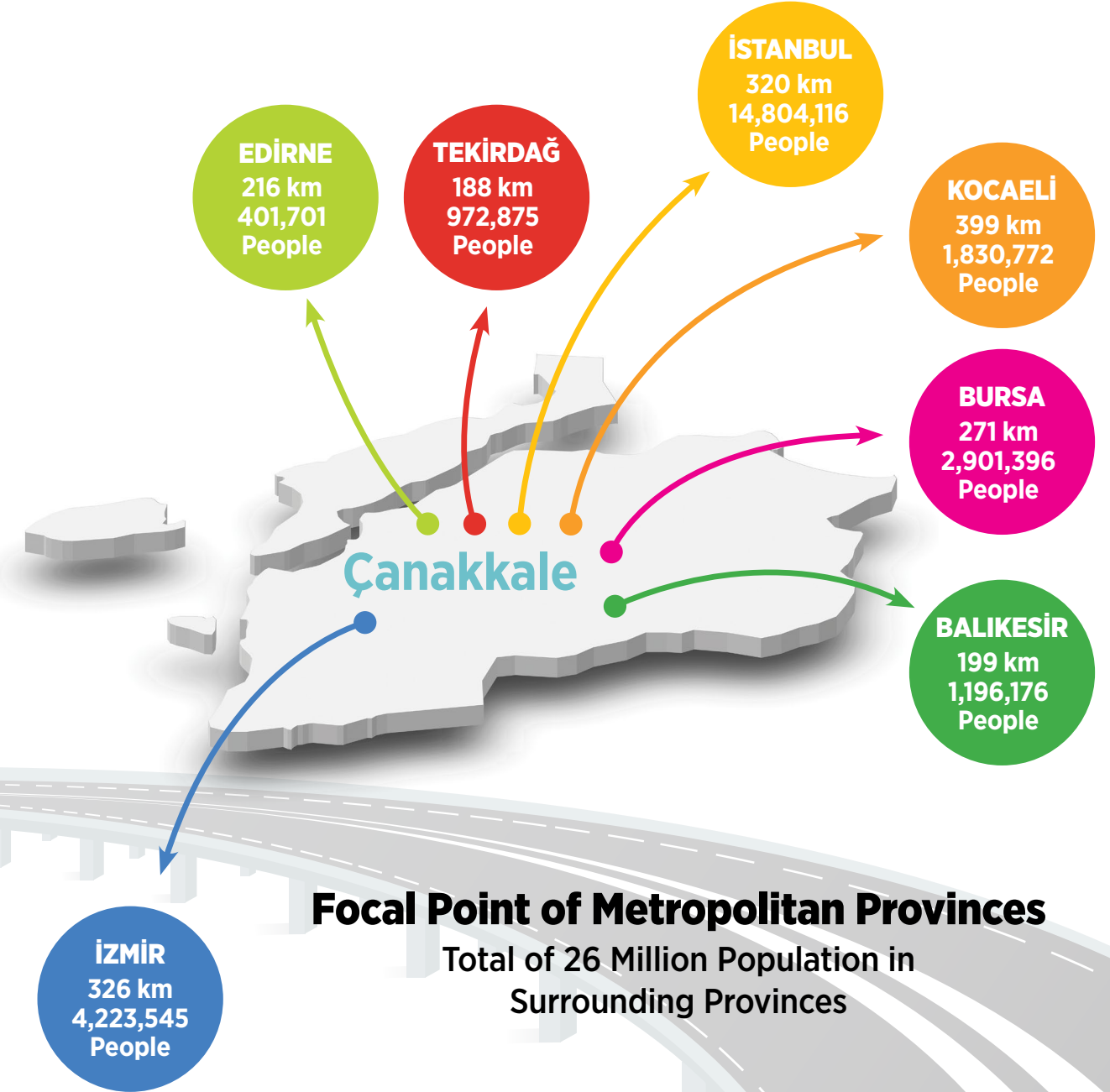
Health in Çanakkale

There are 9 state hospitals, 1 university hospital, 2 private hospitals, 1 health center and 1 oral and dental hygiene center in Çanakkale.



* Information accessed September 2017

Distances by Provinces



Focal Point of Metropolitan Provinces

Total of 26 Million Population in Surrounding Provinces

Access Roads to Surrounding Provinces

» Çanakkale - İstanbul Transportation

Çanakkale is accessible from İstanbul by air and land routes. The distance between Çanakkale and İstanbul is 320 km and flight duration is approximately 50 minutes.

After the completion of Kınalı-Tekirdağ-Çanakkale-Balıkesir Highway Project, which will provide a road link between Asia and Europe, the journey time between Çanakkale and İstanbul will be even shorter.

» Çanakkale - İzmir Transportation

The highway distance between Çanakkale and İzmir is 326 km. Thanks to the Kınalı-Tekirdağ-Çanakkale-Balıkesir and Gebze-Orhangazi-İzmir Highway Projects, it is expected that transportation will be shortened in terms of both distance and time.

» Çanakkale - Bursa Transportation

The highway distance between Çanakkale and Bursa is 271 km.

» Çanakkale - Balıkesir Transportation

Transportation to Balıkesir, neighbouring Çanakkale, shares long borders and stretches to 199 km.

Air Transport

» Çanakkale Airport

Çanakkale Airport entered into service in 1995, and serves both domestic and international passengers in its new terminal building, which entered into service in 2017.

- 12,500 m² terminal building
- 2 aprons with a total capacity of 5 aircraft
- 14 counters
- Over 5,000 domestic and international flights
- More than 180,000 domestic and international passengers per year
- Accessible Airport
- Green Airport Certificate

» Gökçeada Airport

Çanakkale Gökçeada Airport, which entered into service in 2010, is a civil aviation airport that serves domestic traffic.

- 1,200 m² terminal building
- 1 apron with a capacity of 3 aircraft
- 4 counters



Maritime Transportation

Çanakkale has daily ferry routes. Ferry connection from Çanakkale centrum to both Kilitbahir and Eceabat is available. There are also ferry routes between Gelibolu and Lapseki, as well as between Lapseki and Çardak. Access to the islands of Gökçeada and Bozcaada is available via ferries which run at certain times of the day.

Loading and unloading services are available at Çanakkale Kepez Port and Karabiga Municipality Port.

» Port of Kepez

- The port has two piers and a dock with a total berth length of 428 meters.
- All kinds of bulk cargo and general cargo handling services are provided.

» Karabiga Municipality Port

- There are daily ferry lines between the Karabiga Municipality Port and Tekirdağ for freight transport. The port also offers loading and unloading services.

There are three private ports in Çanakkale: İÇDAŞ 1, İÇDAŞ 2 and Akçansa.

» İÇDAŞ Ports

- İÇDAŞ 1 Port, with an overall berth length of 1,655 meters, features two piers and a dock. It has a capacity of 12 to 20 vessels depending on their size.
- The port of İÇDAŞ 2 has a berth length of 624 meters and a single pier.
- Port services include general cargo handling, container handling, liquid cargo handling, storage services, pilotage services and waste collection services.

» Port of Akçansa

- The dock is 620 m in length, and is able to handle all types of bulk and general cargo.

INCENTIVES

Ministry of Economy

The Ministry of Economy provides support for investments in order to reduce regional development disparities, and aims to increase high added value investments through incentives. It aims also to improve production and employment figures, and to expand research and development activities that contribute to international competitiveness.

5th Region incentives are applied for investments into the production of turbines, generators and blades in support of renewable energy production. Regional incentives are implemented.

REGIONAL INCENTIVE IMPLEMENTATIONS

» Customs Duty Exemption

No customs duties are paid for imported machinery and equipment to be provided for the investment that is made by using the incentive.

» Social Security Premium Support (Employer's Share)

The Ministry shall pay the employer's national contributions that are due for additional employment falling within the scope of the incentive. The amount to be paid shall be a proportion of the minimum wage.

» Land Allocation

For investments made using an incentive certificate, land allocations are carried out free of charge in order to speed up the investment process in certain cases.

» VAT Exemption

VAT is not paid on machinery and equipment purchased as part of the investment to be made by using the incentive.

» Tax Reduction

Income and corporate tax are paid at discounted rates for a period of time, considering rates applicable for the invested regions within the scope of the incentive.

» Interest Rate Support

Interest rate support is provided on investment loans with a maturity of at least one year as part of the incentives to encourage regional investments.

The Ministry of Energy and Natural Resources

Electricity generated using renewable energy resources is considered within the scope of a high-priced public procurement commitment. This purchase commitment extends up to 10 years.

In addition, when using domestic technologies, machinery and equipment in renewable energy investments, amounts higher than the unit price for purchase commitment are applied.





Agriculture and Rural Development Support Institution (ARDSI)

ARDSI supports the renewable energy sector as part of its investment program.

Within the scope of the program, ARDSI provides financial support for solar, wind, biomass energy and geothermal energy production. Grants are provided for unlicensed investments of up to 1 MW installed power.

At the same time, ARDSI provides support to real and legal persons with the purpose of establishing renewable energy facilities for electricity generation and sales purposes within the scope of its “Diversification of Economic Activities and Business Development” support.

- Support for solar energy systems, wind energy, geothermal energy and biomass systems
- Support is provided for renewable energy investments to enable businesses to meet their internal energy requirements
- Support for the installation of independent renewable energy facilities



World Bank

The World Bank offers loans to private companies operating in the renewable energy sector in energy generation and energy efficiency projects.

The provided loan covers 75 percent of the investment rate. The maturity term of the loan is determined following an efficiency analysis of the project. In order to benefit from such a loan, investors must comply with the minimum requirements set by the World Bank and must have completed the relevant permit and licensing procedures for the related investment.



South Marmara Development Agency

South Marmara Development Agency provides grants to SMEs, registered in Balıkesir and Çanakkale, to help them improve their competitiveness.

In a Project Call for Proposals, a SME can submit project proposals in accordance with the subjects and conditions set for the program as part of a specific support program. For the support programs that can be applied during certain periods of the year, SME support has been given to producers of machinery and equipment for renewable energy production and to meet their own energy needs until now. The subject and sectors to be supported may change every year for each specific program.

The submitted projects are then ranked according to the points received, and become eligible for grants depending on the program budget. Successful projects are given a grant of 50 percent. A portion of the grants is prepaid to firms in advance to help overcome initial financing problems. Further information on the active grant programs that you can apply for and current information on all grant programs is available at www.gmka.gov.tr/destekler.

South Marmara Development Agency is on your side with its Çanakkale Investment Support Office

South Marmara Development Agency Çanakkale Investment Support Office's mission is to improve the provincial investment climate, to attract investment by promoting the investment environment through different channels and approaches, and to support investors throughout their investment process.

Çanakkale Investment Support Office operations include:

- Providing information to investors on a variety of issues,
- Preparing analyses, reports and inventory studies related to the business and investment climate of the province, and sharing the results with investors,
- Supporting investors in finding suitable land for investment,
- Supporting the follow-up of investment permits and licenses,
- Organizing promotional events related to the investment environment,
- Developing and implementing strategies to improve the business and investment climate in the province, and developing collaborations between institutions and investors.



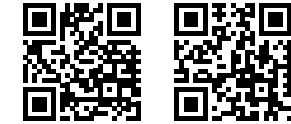
Strong B2B
Communication
Network

Qualified
Labor Force

Strong
Corporate
Structure



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ÇANAKKALE ENERGY SECTOR INVESTMENT GUIDE



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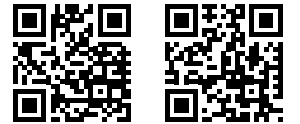
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