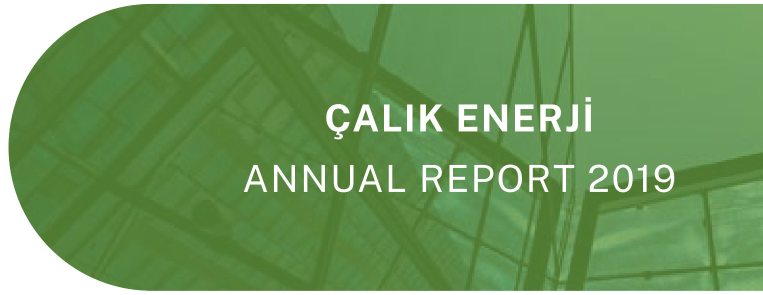
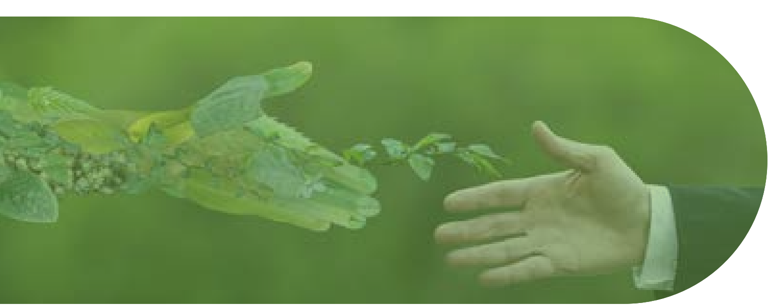
ÇALIK ENERJİ

ANNUAL REPORT 2019





ÇALIK ENERJİ

Contents

MORE TO COME...

Çalık Enerji provides creative and innovative solutions in every facet of the energy industry, capitalizing on our deep experience and using emerging technologies.

We work for a sustainable future. We make a difference in domestic and international markets with our innovative business model that ensures steady progress in the energy sector, where uninterrupted service is critical.

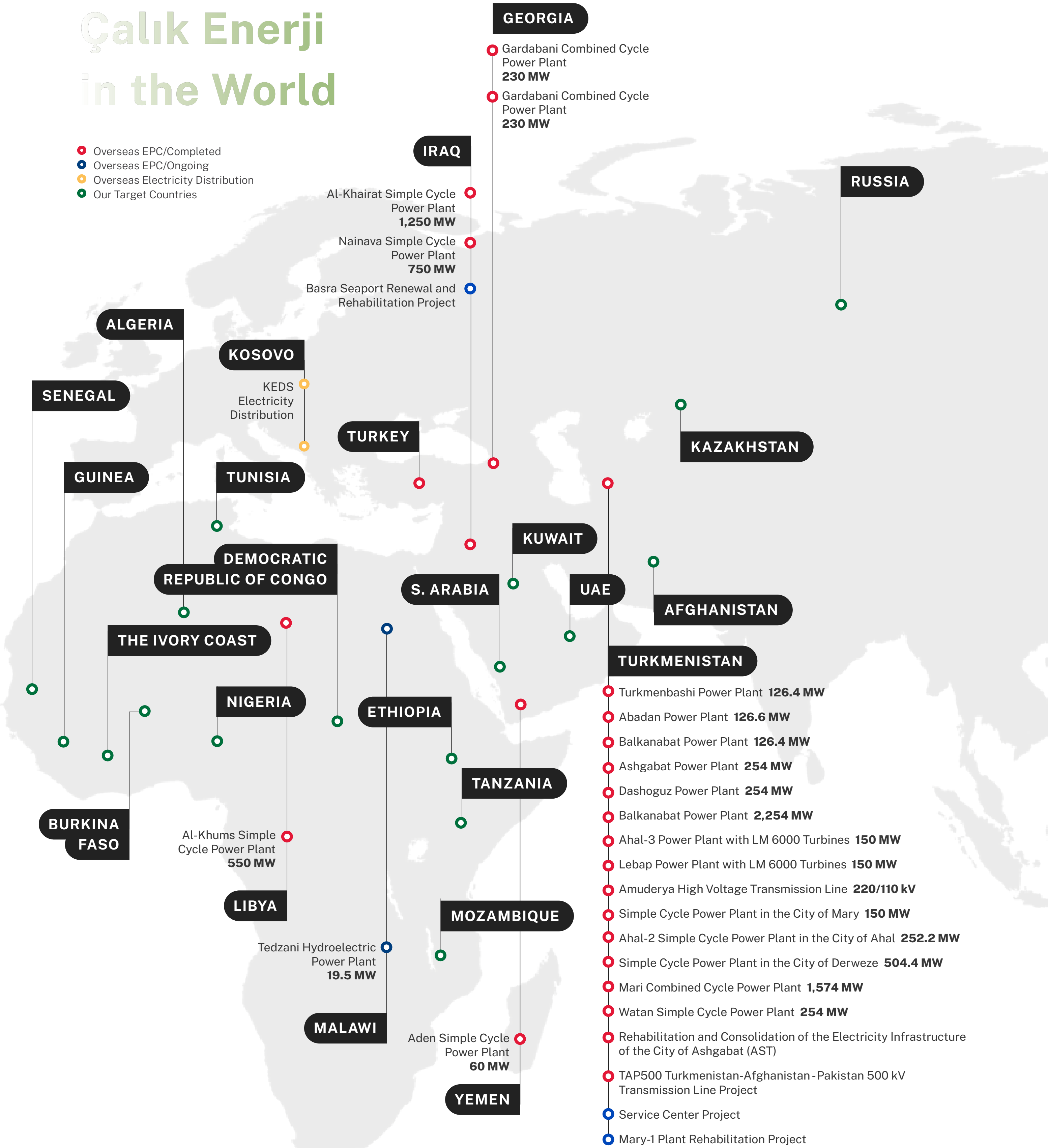
Now let’s hear what our expert staff at Çalık Enerji has to say... They will speak about our ongoing success and our steps for the future in this annual report.

ÇALIK ENERJİ

Çalık Enerji in Turkey

Çalık Enerji in the World

- Overseas EPC/Completed
- Overseas EPC/Ongoing
- Overseas Electricity Distribution
- Our Target Countries



Çalık Holding in Brief

Pursuing activities in the field of energy, construction, textile, mining, telecommunication, finance and digital; Çalık Holding employs more than 23 thousand people in 20 countries within Central Asia, the Balkans and the MENA Region.

Activities in 20 countries and 7 sectors...

NUMBER OF EMPLOYEES

23 thousand+

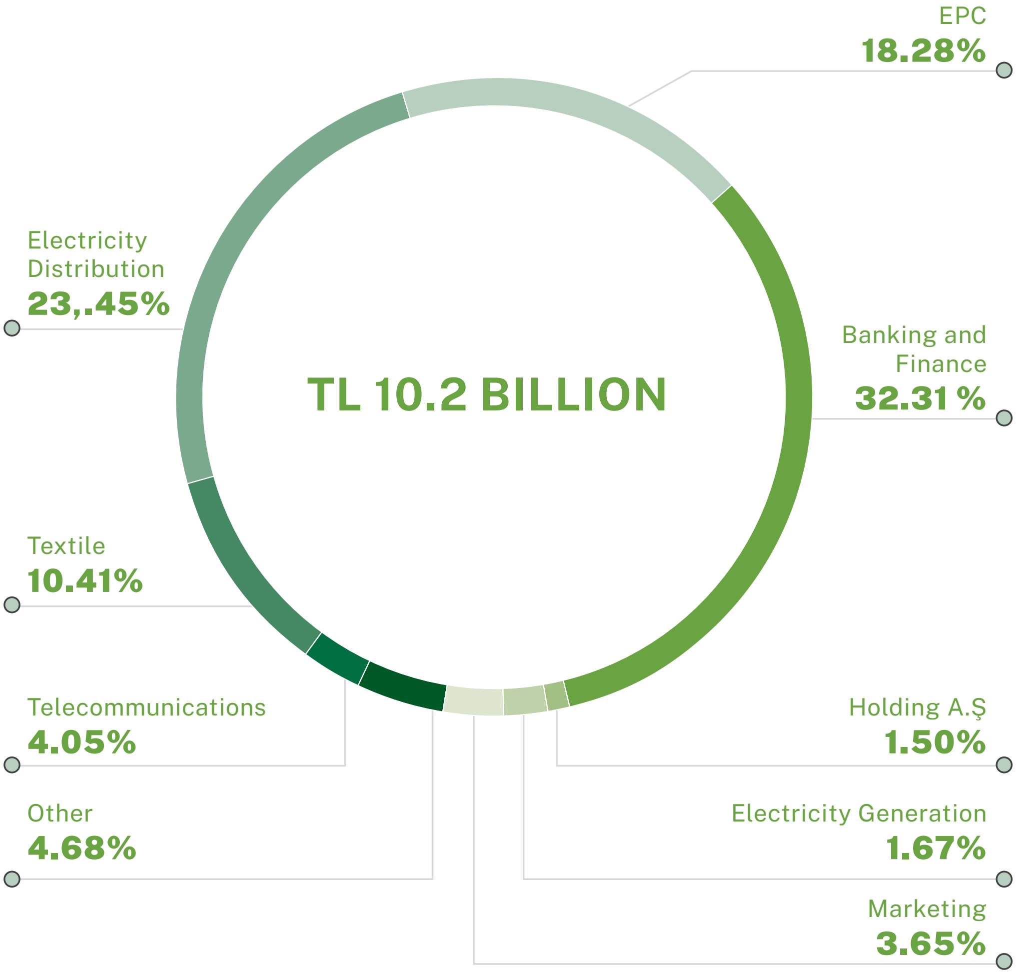
TOTAL ASSETS

58.9
TL billion

2019 TOTAL SALES

10.2
TL billion

BREAKDOWN OF INCOME BY SECTOR



ENERGY

CONSTRUCTION

FINANCE

MINING

TEXTILE

TELECOM

DIGITAL

Founded by Ahmet Çalık in 1981, Çalık Holding operates in energy, construction, mining, textile, finance, telecommunications and digital. Continuing its activities in 20 countries including Central Asia, the Balkans and the MENA region, the Group creates employment for more than 23 thousand people.

Çalık Holding is a strong player both in Turkey and overseas. The Holding operates the following companies: Çalık Enerji in energy; Çalık Petrol in oil exploration; YEDAŞ, YEPAŞ, KEDS in partnership with Limak, and ARAS EDAŞ and ARAS EPAŞ in partnership with Kiler in electricity distribution; Lidya Madencilik in mining; Gap İnşaat in construction; Aktif Bank, Albania BKT (Banka Kombetare Tregtare) and Kosovo BKT in finance; Çalık Denim and Gap Pazarlama in textiles; Albania ALBtelecom in telecom; and Çalık Digital in the digital arena.

Çalık Holding is widely recognized globally thanks to its strong reputation, credibility, sound financial structure and long-standing partnerships with international companies as part of its operations in different regions of the world. The Holding develops innovative business models and achieves sustainable growth in its core areas of activity. Acting with the principle to establish permanent values in every geography it operates, Çalık Holding implements pioneering projects for the society and the business world with its business processes, services and products developed in line with Industry 4.0, Community 5.0 and sustainability approaches.

Çalık Holding is widely recognized globally thanks to its strong reputation, credibility, sound financial structure and long-standing partnerships with international companies as part of its operations in different regions of the world. The Holding develops innovative business models and achieves sustainable growth in its core areas of activity.

Çalık Enerji in Brief

Carrying out activities in all areas of international energy sector, Çalık Enerji currently operates in Turkey, Turkmenistan, Iraq, Georgia, Libya, Dubai, Afghanistan, Yemen, Malawi and Kosovo markets.

DATE OF ESTABLISHMENT

1998

NUMBER OF EMPLOYEES

1,095

SHAREHOLDING STRUCTURE

Çalık Holding
95.42%

Kırmızı Elmas En. ve Altyapı Yat. A.Ş.
4.48%

Ahmet Çalık
0.10%

www.calikenerji.com

A prominent global energy company thanks to its successful projects, Çalık Enerji has operated across a wide geographic region encompassing the Middle East, Central Asia, Africa and the Balkans since it was established in 1998. The Company is committed to creating a better and sustainable future and providing people with energy originating from nature. Continuing its activities in every area of international energy sector with its expert and experienced staff and its creative and innovative solutions produced by using new technologies, Çalık Enerji currently operates in Turkey, Turkmenistan, Iraq, Georgia, Libya, Dubai, Afghanistan, Yemen, Malawi and Kosovo markets.

Having a say in the energy sector and energy-related infrastructure works in the fast-growing markets such as Africa and the Middle East, Çalık Enerji broadened its focus areas with a holistic approach and added transportation, desalination and hybrid energy among its activities. Continuing its activities with Mitsubishi Corporation in new geographies in this context, Çalık Enerji is currently executing its first project in transportation sector, "Basra Seaport Renewal and Rehabilitation Project" signed in 2018 in Iraq.

Prioritizing making use of the energy production and distribution opportunities established in Sub-Saharan Africa, Çalık Enerji simultaneously conducts the tender and bidding processes in countries such as Senegal, Mozambique, Nigeria and Tunisia, which play key roles in that geography.

Within the scope of the Memorandum of Understanding signed in August 2019 for a cooperation with Mitsubishi Heavy Industries Engine & Turbo Charger (MHIET) for the development of "Hybrid Consisting of Three Separate Sources (EBLOX)" projects regarding renewable energy, Çalık Denim conceptualized the initial application in Malatya Çalık Denim Factory. Within the scope of the cooperation, MHIET carries out the procurement of the generator and the energy management system (COORDY) while Çalık Enerji supplies the solar panel, battery, other electric and construction works as well as maintenance & repair services. Additionally in 2019, the Company has completed the 1,574 MW Mary-3 Combined Cycle Power Plant Project, which is Central Asia's highest capacity power plant located in Turkmenistan.

In light of its many achievements and deep experience, Çalık Enerji continues its renewable energy and oil-gas operations in Turkey. Adacami Hydroelectric Power Plant (30 MW) commissioned in 2013 in Güneysu, Rize; Demircili and Sarpıncık Wind Power Plants (72 MW) commissioned in 2016 in İzmir; Çorum (9.25 MW), Amasya (5 MW), Erzincan (5 MW), Erzurum (5 MW), Polatlı (1 MW) Solar Power Plant Projects commissioned in 2016 and 2017. In 2019, Çalık Enerji increased the production capacity of its current Solar Power Plant in Amasya by 5.94 MW.

Started to provide operation and maintenance services to external power plants in 2019 with the experience gained in the operation

and maintenance of solar power plants, Çalık Enerji has undertaken the operation and maintenance of a portfolio of 90 MW together with its own facilities. Furthermore, the Company has included 2.05 MWp Bala Solar Power Plant to its portfolio.

Boasting a strong management team and competent employees, Çalık Enerji successfully implements its plans thanks to its effective human resources policy. Adopting a win-win approach to investments and services, the company always aims to contribute to the regions where it makes its investments as well.

Thanks to the efficient procurement and logistics processes it executes, Çalık Enerji ensures maximum supplier satisfaction. Strong, long-term relationships with suppliers help bolster the Company's competitive position, especially in challenging markets. Prioritizing to improve its relations with local authorities in the countries where it operates, Çalık Enerji aims to be one of the leading companies in the country in its sector.

Boasting a strong management team and competent employees, Çalık Enerji successfully implements its plans thanks to its effective human resources policy.

Key Financial and Operational Indicators

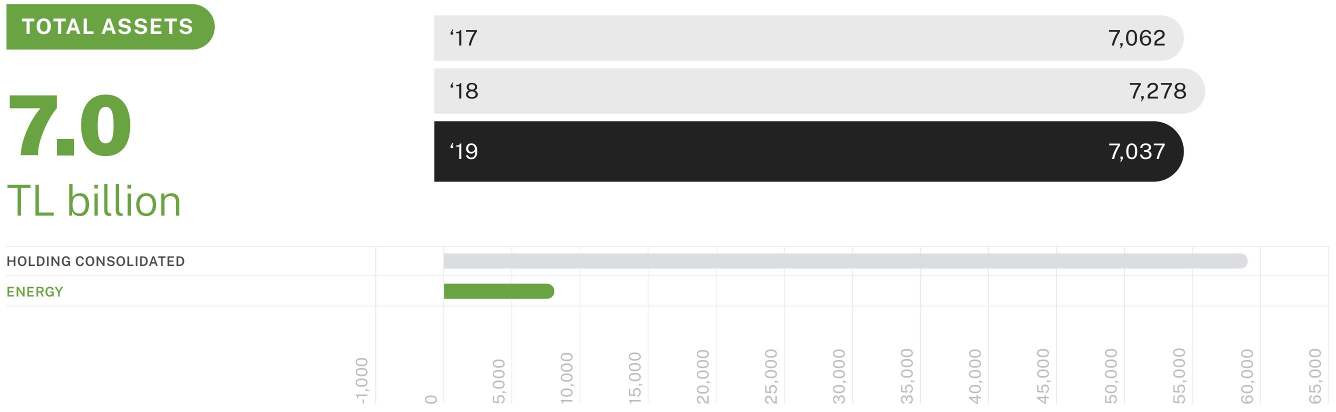
Completing a successful year in financial and operational terms, Çalık Enerji's total assets were TL 7.0 billion and its net sales were TL 4.2 billion as of the end of 2019.

Financial Summary (TL Million)	2016	2017	2018	2019
Total Assets	5,006	7,062	7,278	7,037
Net Sales	3,552	4,807	5,361	4,240
Total Equity	1,445	2,621	3,473	3,606
EBITDA	894	1,470	1,442	1,388
EBITDA Margin (%)	25	31	27	33

TOTAL ASSETS

7.0

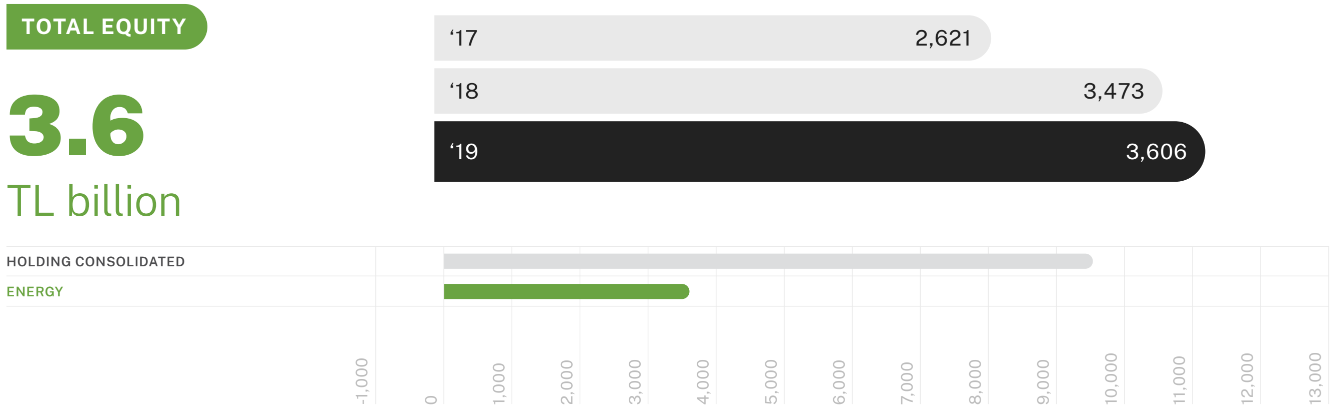
TL billion



TOTAL EQUITY

3.6

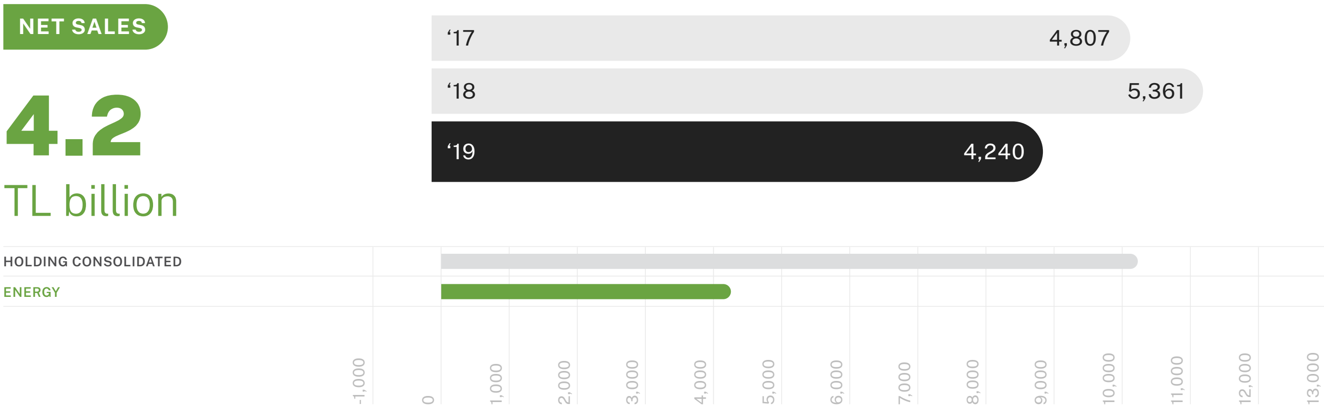
TL billion



NET SALES

4.2

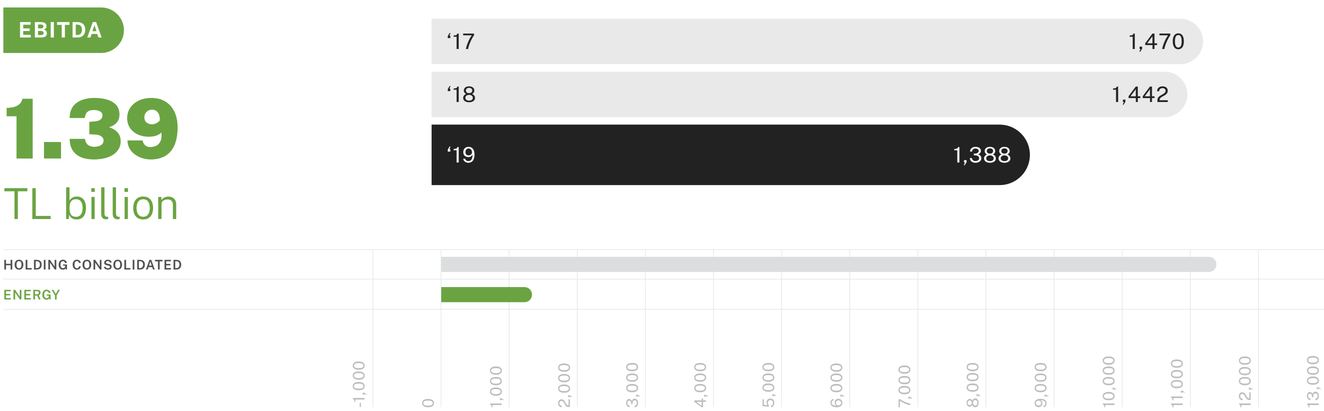
TL billion



EBITDA

1.39

TL billion



Developments in 2019

As of the end of 2019; Çalık Enerji achieved a 71% completion rate in the Tedzani-4 Hydroelectric Power Plant Project with 19.5 MW installed power, which is the first renewable EPC project.

TURKMENISTAN-AFGHANISTAN-PAKISTAN TRANSMISSION LINE PROJECT

1.6

USD billion

MARY-3 PROJECT

1,574

MW

TEDZANI HYDROELECTRIC POWER PLANT

19.5

MW

Turkmenistan-Afghanistan-Pakistan Transmission Line Project (TAPP500)

Considered the most important high voltage transmission line project in Asia, the TAP500 Project will proceed in parallel with the Turkmenistan-Afghanistan-Pakistan-India (TAPI) Natural Gas Pipeline Project. The initial agreement for TAP500 was signed in Kabul, Afghanistan, with the participation of representatives from relevant countries. The USD 1.6 Billion project, which will be managed by Çalık Holding, is one of the most important investment projects undertaken by a Turkish company in Asia. Turkmenistan, currently exporting electricity to Afghanistan and Iran, will be able to sell electricity to countries in Southeast Asia once the TAP500 Project is finalized. TAP500 Project is expected to be finalized in three years following the start of construction.

Mary-3 Project

The Mary-3 Project, located in Turkmenistan, started production following the opening ceremony. The plant has a capacity of 1,574 MW with central generation systems consisting of four gas turbines, four boilers and two steam turbines from GE. Mary-3 Combined Cycle Power Plant is the largest combined cycle power plant featuring advanced technologies constructed in a single stage after the independence of Turkmenistan. Çalık Enerji follows the 2-year warranty period of the plant and continues its support for the continuation of the operation activities without interruption.

Basra Seaport Project

Çalık Enerji signed an agreement for Basra Seaport Renewal and Rehabilitation Project, Iraq's most important sea gateway. The project will be implemented in partnership with Mitsubishi Corporation. Basra Seaport Project will expand the oil products dock at Khor Al-Zubair Port, where the existing industrial port facilities surrounding Basra will be located. It is planned to build a new seaport for the vessels and service boats operating at Umm Qasr Port with the project.

Tedzani-4 Hydroelectric Power Plant Project

Çalık Enerji's first renewable EPC project, Tedzani-4 Hydroelectric Power Plant Project has an installed capacity of 19.5 MW and is the first power plant to be commissioned in partnership with Çalık Enerji and Mitsubishi Corporation in Sub-Saharan Africa. The construction of the project began on June 11, 2018 and the construction phase is expected to be finished in September 2021. Çalık Enerji undertook turnkey construction of the Project, including construction work and the design, procurement, transport, production and assembly of turbines, generators and peripheral systems, 66 kV switchyard, energy transmission line and hydromechanical equipment. As of the end of 2019, 71% completion rate was achieved in the Project.

Doğu and Çaydibi Solar Power Plant (SPP) Projects of Çalık Enerji with a total capacity of 5.94 MWp/5Mwe located in Amasya have initiated commercial power production as of December 11, 2019.

Amasya Çaydibi and East Solar Power Plant Projects

Doğu and Çaydibi Solar Power Plant (SPP) Projects of Çalık Enerji with a total capacity of 5.94 MWp/5Mwe located in Amasya have initiated commercial power production as of December 11, 2019.

The projects were initiated on August 26, 2019 and all plants were commissioned within 108 days. Within the scope of the projects undertaken by Çalık Enerji as both investor and EPC, installations was made on an area of 100 thousand square meters. In these projects, 15,840 pieces of PV modules, 353 tons of steel and 106 km cable were used. Doğu and Çaydibi SPP Projects are expected to generate a total of 8.222 MWh of energy annually and prevent 4.087 tons of CO_2 emission.

Integrated PV Panel Manufacturing Plant

In April 2018, Atayurt İnşaat A.Ş., a Çalık Enerji subsidiary, was granted a state subsidy for the 500 MW Integrated PV Panel Manufacturing Plant. Feasibility and preliminary project design efforts are ongoing. The works requested by public institutions were completed and submitted for acquiring a final incentive certificate within 2019.

Gardabani Combined Cycle Power Plant

Construction of the 230 MW Combined Cycle Power Plant was completed in Gardabani, Georgia; operating activities for this project are ongoing.

Demircili Wind Power Plant Capacity Increase

The works to obtain permit regarding a capacity increase of 3.6 MW for the 40 MW Demircili Wind Power Plant in İzmir/Urla are ongoing. After the permit process, the construction works will commence.

AMASYA ÇAYDİBİ AND DOĞU SOLAR POWER PLANTS TOTAL CAPACITY

5.94

MWp/5Mwe

In April 2018, Atayurt İnşaat A.Ş., a Çalık Enerji subsidiary, was granted a state subsidy for the 500 MW Integrated PV Panel Manufacturing Plant. Feasibility and preliminary project design efforts are ongoing.

Developments in 2019

In order to ensure stable and reliable production of the gas turbine fleet under the Turkmenistan Ministry of Energy, the Turbine Fleet Maintenance Project, which includes many firsts was implemented in cooperation with Çalık Enerji and Turkmenenergo.

GARDABANI COMBINED CYCLE POWER PLANT

230

MW

DEMİRCİLİ WIND POWER PLANT

40

MW

Çalık Denim Roof Type Solar Power Plant Project

Project development, engineering, invitation letter and main equipment procurement processes for the installation of a Roof Type Solar Power Plant with a capacity of 957kWp/820We in the first stage on the roofs of Çalık Denim's production facilities in Malatya was completed by December 2019. Çalık Enerji aims to complete the commissioning works by the first quarter of 2020 as the Project's EPC main contractor.

Turkmenistan Fleet Maintenance Project (TFM Project) – Service Center Project

In order to ensure stable and reliable production of the gas turbine fleet under the Turkmenistan Ministry of Energy, the Turbine Fleet Maintenance Project, which includes many firsts, was planned in cooperation with Çalık Enerji and Turkmenenergo. The contract process for the project was completed in 2019.

The extensive maintenance project to be executed by Çalık Enerji is the first project to be funded by the Company in Turkmenistan. The funding of the project will be provided with the export loans to be utilized from Exim-supported (Swiss "SERV") European Banks (Credit Suisse and Commerzbank). Within the scope of the project, a "Service Center" will be established in Ashgabat.

Mary-1 Plant Rehabilitation Project

1,685 MW Mary-1 Power Plant is one of the first thermal power plants in Turkmenistan. Its main production is provided by Russian LMZ branded steam turbines and expansion works for the plant was commenced in 1973 and continued until 1987. The Project includes the rehabilitation and heavy maintenance works of the plant and is expected to be finalized by the end of 2020 after starting in June 2019. Within the scope of the project, turbines, generators, boilers and all other residual system equipment of 7 units will be renewed or maintained.


ÇALIK ENERJİ

Awards in 2019

Çalık Enerji was awarded the “Most Successful Digital Transformation Award” in the field of production in 2019 with its IQPower product at the IQB Solutions, Microsoft Business Partners Summit.

- Çalık Enerji ranked 54th in the “Fortune 500 Turkey - Largest Companies in Turkey 2019” list prepared according to 2018 year-end data.
- In the “ENR (Engineering News Record) 2019 Top 250 International Construction Companies” list, Çalık Enerji ranked 119th in general category and 10th among Turkish companies.
- Çalık Enerji ranked 72nd in the “Capital 500 Turkey - Largest Companies in Turkey 2019” list prepared according to 2018 year-end data.
- The Company was awarded the “Most Successful Digital Transformation Award” in the field of production in 2019 with its IQPower product at the IQB Solutions, Microsoft Business Partners Summit.
- At International Contracting Service Awards Ceremony,” organized annually by the Turkish Contractors Association, Çalık Enerji was awarded the 11th place.

Our Mission, Vision, Corporate Values and Competitive Advantages

Çalık Enerji and its staff is working with their energy to build a better future in our country and in different geographies including the Middle East, Central Asia, Africa and the Balkans.

OUR MISSION

Building a better future with all our energy across various regions in cooperation with our employees.

OUR VISION

Growing into the most commercially successful and preferred energy company in target countries.

OUR COMPETITIVE ADVANTAGES

- Highly qualified workforce
- Capacity of doing business in challenging regions
- Embracing the principles of reliability and transparency in all business relations
- Targeting high levels of customer satisfaction
- World-class quality standards
- Fast decision-making
- Effective management of business processes and connections
- Strong international business partnerships in the sector

OUR CORPORATE VALUES

Fairness
At work and in our principles, we are a family that is motivated by what is right and fair.

People-Oriented
We devote all our energy to improving people's lives. Our priority is always the development and happiness not only of our employees and customers but of all the people touched by the value we generate.

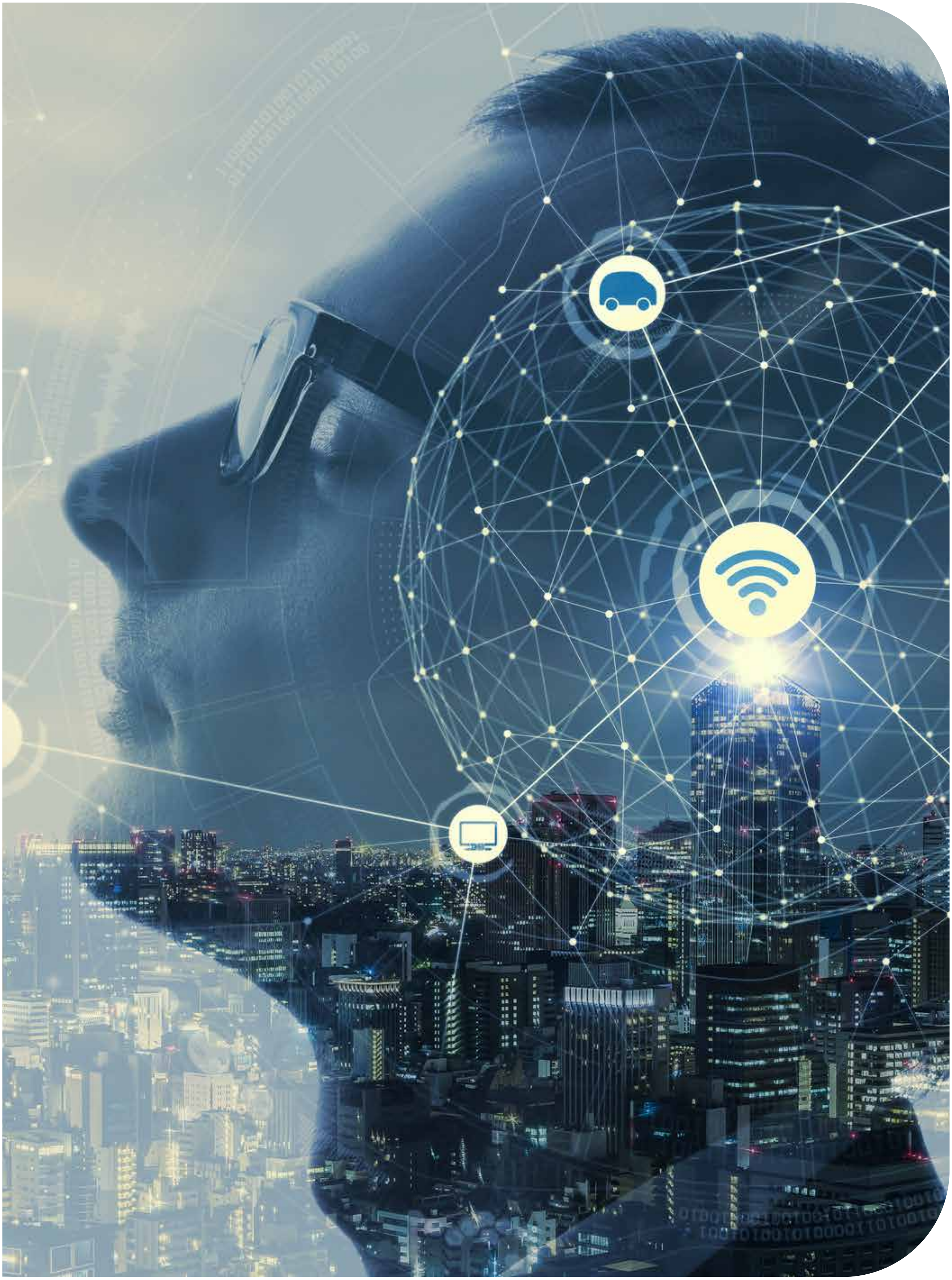
Reputation
Our good reputation comes before anything else.

Work from the Heart
No matter what, we put our hearts into what we do for our company, to achieve our goals and to realize projects we firmly believe that will add value to people's lives.

Innovation
We continuously develop and improve our solutions and business models, identifying those that will differentiate us.

Agility
We have the flexibility and speed to meet every challenge.

Sustainability
We value long-term, continuous success and respect the environment.



Çalık Enerji's "Firsts" and "Major Achievements" in the Industry

Implementing many firsts and successes since the day it was established, Çalık Enerji is one of the first 10 companies in the world to build an electric power plant operating with fossil fuel.

- In addition to being Georgia's first combined cycle power plant and the investment project with the highest budget, Çalık Enerji's first turnkey natural gas combined cycle power plant project, "230 MW Gardabani Combined Cycle Power Plant,"
- The "Adacami HEPP investment" which features the longest tunnel (12 km) among hydroelectric power plants with regulators,
- Construction of the "1,250 MW Al-Khairat Simple Cycle Power Plant" and "750 MW Nainawa Simple Cycle Power Plant" in Iraq in 2013 – the biggest power plants in the country.
- Construction of the 450 MW LM6000 gas turbines in Turkmenistan's Ahal-Mary-Lebap provinces, advanced technology used for the first time in the country.
- In addition to being an important project executed by Çalık Enerji and the highest budget electric infrastructure replacement project in which the entire electricity infrastructure of a city has been replaced; "Increasing the Reliability of Power Supply to the City of Ashgabat (AST),"
- The "1,574 MW Mary-3 Combined Cycle Power Plant," the largest power plant constructed after Turkmenistan's independence; the facility was commissioned in 2018.
- Construction of the "550 MW Al-Khums Fast Track Simple Cycle Power Plant," the first project that Çalık Enerji completed in Libya.
- The "60 MW Aden Fast-Track Mobile Power Plant" is Çalık Enerji's third project in the Middle East, the first mobile power plant contract and the Company's first project in Yemen.
- "Demircili and Sarpıncık Wind Power Plants" which consist of 29 turbines with an aggregate installed capacity of 72 MW, are the first WPPs built by Çalık Enerji.
- The "Turkmenistan-Afghanistan -Pakistan (TAP500) Transmission Line," which is one of the most important investment projects ever undertaken by a Turkish company in Asia,

- The "Basra Seaport Renewal and Rehabilitation Project," which is performed in the Middle East and North Africa (MENA) Region and is the company's first project in the transportation sector.
- 19.5 MW Tedzani-4 Hydroelectric Power Plant, the first power plant realized by Çalık Enerji and Mitsubishi Corporation cooperation in Sub-Saharan Africa in addition to being the company's first renewable EPC project,
- "Turkmenistan Fleet Maintenance and Service Center Projects," as well as being the largest maintenance project to be executed by Çalık Enerji, it is the first project to be funded and executed by the Company in Turkmenistan.

Milestones

In order to create a common development culture in the business world, Çalık Enerji became a signatory of the Global Compact, which recommends universal principles in 2019.

The first power plant contract for Turkmenistan was signed.

Yeşilırmak Elektrik Dağıtım A.Ş., which distributes electricity in the Central Black Sea, was taken over.

The Company partnered with Mitsubishi Corporation.

1998
- Çalık Enerji is established.

2002
- The first power plant contract for Turkmenistan was signed.

2003
- The first power plant project was completed in Turkmenistan.

2004
- Bursagaz, the natural gas distribution company of the city of Bursa, was acquired by the Company through a privatization tender.

2007
- Çalık Enerji acquired Kayserigaz, a natural gas distribution company operating in Kayseri.

2008
- In line with its growth strategy and restructuring initiative, Çalık Enerji sold off majority shares in Bursagaz and Kayserigaz to the Germany-based international energy company EWE.

2010
- Yeşilırmak Elektrik Dağıtım A.Ş., which distributes electricity to Samsun, Ordu, Çorum, Amasya and Sinop in the Central Black Sea region was taken over.

2011
- A contract was signed for the construction of a total of 2,000 MW power plants in Mosul and Karbala regions of Iraq.

2012
- Electricity distribution services of Kosovo was acquired by Çalık Holding and Limak Holding partnership.
- The Company ranked among 250 global companies in the list of “ENR Engineering News Record,” which ranks the world’s largest international companies.

2013
- The 1,250 MW Al-Khairat Power Plant, the largest power plant of Iraq, was constructed and commenced operation in 2013.
- The Adacami Hydroelectric Power Plant, the Company’s first investment contract in Turkey, was opened.
- Çalık Holding, in partnership with Kiler Holding, acquired Aras Electricity Distribution, which distributes electricity to seven provinces in Eastern Anatolia.

2014
- The 1,250 MW Al-Khairat Power Plant Project, completed in Iraq, was selected by ENR as the best industrial project of the world.
- The 750 MW Nainawa Power Plant, the second largest power plant in Iraq, was opened in Mosul.

2015
- The Company partnered with Mitsubishi Corporation.
- Çalık Enerji completed and delivered the Gardabani Natural Gas Combined Cycle Power Plant. The Company also carried out the operation of the facility, thereby venturing into the area of combined cycle power plant operation.

2016

Demircili and Sarpıncık WPP, the first wind power plant investments started production.

2018

Mary-3 Combined Cycle Power Plant with a power of 1,574 MW was commissioned.

2019

The largest maintenance project; Turkmenistan Fleet Maintenance and Service Center Projects were initiated.

2016

- Comprising 29 turbines and 72 MW installed capacity, Demircili and Sarpıncık WPPs, the first WPP investment of the Company, started generation activities.
- The “AST Project (Increasing the Reliability of Power Supply to the City of Ashgabat)” was completed as the largest single-stage electricity infrastructure replacement project undertaken by the Company.
- Çalık Enerji constructed its first solar power plant in Polatlı, Ankara.

2017

- The “530 MW Al-Khums Fast Track Simple Cycle Power Plant,” the first project the company completed in Africa (Libya) commenced operations.
- A contract was signed for the 18 MW Tedzani-4 plant, the first power plant project undertaken by the Company in partnership with Mitsubishi Corporation in Sub-Saharan Africa.
- The Company invested in 30 MW of solar power plants in Turkey.

2018

- The 1,574 MW Mary-3 Combined Cycle Power Plant was commenced operations in the Mary province of Turkmenistan as the largest combined cycle power plant of Central Asia after independence.
- In Afghanistan, a contract was signed for the TAP500 500 kV transmission line, with the participation of Energy Ministers and executives. The project will be the first international transmission line project of the Company and enable the sales of Turkmenistan’s electricity to Afghanistan and Pakistan.
- Atayurt İnşaat A.Ş., a Çalık Enerji subsidiary, was entitled to state subsidy for the 500 MW Integrated PV Panel Manufacturing Plant.
- Çalık Enerji entered into an agreement for the Renewal and Rehabilitation of the Basra Seaport, Iraq’s most important gateway at sea.
- A groundbreaking ceremony for the Capacity Increase of Tedzani-4 Hydroelectric Power Plant in Malawi was held. Construction works started afterwards.

2019

- Çalık Enerji started Tedzani Hydroelectric Power Plant Capacity Increase Project (Tedzani-4) in Malawi. Following the construction of all water structures and the power plant building of the project funded by the Japan International Cooperation Agency (JICA), Çalık Enerji assumed the procurement and assembly of hydromechanical, electrical and electromechanical equipment on a turnkey (EPC) basis.
- As the largest maintenance project to be undertaken by Çalık Enerji; Turkmenistan Fleet Maintenance and Service Center Projects were initiated.
- In order to create a common development culture in the business world, Çalık Enerji became a signatory of the Global Compact, which recommends universal principles.

Message from the Chairman

We achieved significant progress in the past year of 2019 owing to our ability to adapt to an ever-changing environment, coupled with our long-standing corporate values and our goal of sustainable success.

Highlights in Figures

TOTAL ASSETS

7.0

TL billion

TOTAL EQUITY

3.6

TL billion

EBITDA

1.39

TL billion

Esteemed Stakeholders,

2019 was marked by a global economic slowdown and uncertainties, as well as developments in trade wars, volatility in financial markets, interest rate cuts and the novel Coronavirus (Covid-19) outbreak in Wuhan, China in December. During the previous year, U.S. bond yields had reached their peaks of the last seven years, consequently restricting the capital flow directed towards developing countries significantly. Furthermore, Brexit continued to act as a source of increasing pressure on the Eurozone, which was already suffering from stagnation.

During 2019, the risks surrounding the market triggered the vulnerabilities in developing countries to the greatest extent. In the first part of the year, while the global risk followed a lower course in such economies, they were observed to suffer from strong capital outflows and a loss of growth momentum. The second half of 2019 was, on the other hand, shaped by the positions of central banks. The launch of interest rate cuts and bond purchase programmes resulted in a renewed interest in the financial assets of developing countries.

Early forecasts for 2020 expected the global economy to record a moderate recovery compared to 2019. However, the projected global economic recovery did not materialize due to the Covid-19 outbreak that started on the last days of 2019 and spread rapidly across the globe. While there are ongoing discussions as to the impact of the pandemic on the world economy, the importance of the joint steps to be implemented by countries in the forthcoming period is critical.

Despite the economic uncertainty in 2019 caused by both strained relations with the U.S. and the elections, Turkey's economy started to bounce back in the second half of the year owing to the timely and to-the-point implementation of actions and macro-economic measures. The Central Bank of the Republic of Turkey cut its policy rate from 24% at the beginning of the year to 12% in the end, whereas the decreases in imports and increases in exports throughout the year alleviated the negative impact on the economy, thereby paving the way for Turkey to conclude the year 2019 with growth.

As Çalık Group, we aim for sustainable growth.

We achieved significant progress in the past year of 2019 owing to our ability to adapt to an ever-changing environment, coupled with our long-standing corporate values and our goal of sustainable success. While this period was marked by volatility in global and national economies and increasingly heavier competition, we continued to move forward with great confidence, achieving sustainable growth in our business areas, which we prioritized in line with our strength in offering innovative solutions and our goal of creating world brands.

In 2020, we will experience a new era in the shadow of the Covid-19 pandemic, where continued uncertainties will be the norm and globalism will be leaving the stage in favour of protectionism. As Çalık Group, we are determined to create value for our country and our stakeholders by staying one jump ahead in every one of our business areas in 2020, as was the case in 2019, through our proactive management approach that lends us the capacity to adapt to changes and to manage risks.

Accordingly, we will continue to invest in digital transformation with a view to achieving our long-term strategic objectives and leading the way through adapting ourselves to the changing conditions.

I would like to inform all our stakeholders that we are well prepared for this process with our solid financial foundations, as well as our dynamic approach to risk management and diversified lines of business. We have implemented and will continue to implement the measures necessary to protect our human resources, which represent our most valued assets, with our pandemic action plan. At the same time, as a reflection of the value of agility upheld by our Group, we will remain open to new business areas and protect our entrepreneurial spirit.

As Çalık Group, we believe that social transformation based on the technological change experienced around the world can lead to the formation of a new smart society. Embracing a “society-oriented” perspective, we aim to pioneer in the society and the business world with our activities and to support the most efficient course for such transformation. We renew ourselves in harmony with global developments to ensure sustainable success with the Çalık brand.

From the beginning, we, as Çalık Group, have remained committed to undertaking efforts that benefit humanity and to acting with due sensitivity towards the environment at the same time. As part of our efforts for sustainability, Group companies Çalık Enerji and Çalık Denim became signatories to the UN Global Compact in 2019.

And in 2020, we will formulate our strategy for sustainability to build the future and continue with our efforts in this area at the same level of depth through the roadmaps we will establish the forthcoming period.

I would like to express my gratitude to all our stakeholders, especially our colleagues, for their valuable contributions to the successful results which Çalık Group achieved in 2019. Guided by the light of our values, we will continue working and producing for our country, the geographies touched by our operations, and the entire humanity.

Kind regards,

Ahmet ÇALIK
Chairman

Message from the General Manager

While increasing investment spending to shape the future in 2019, Çalık Enerji once again achieved a solid performance that further bolstered its financial structure and competitiveness.

Highlights in Figures

FORTUNE 500 TOP TURKISH COMPANIES LIST

54TH

Place

NET SALES

4.2

TL billion

EBITDA MARGIN

32%

Esteemed Business Partners and Valued Employees,

Global developments caused downside risks to adversely impact the world's economies as well as the energy business in 2019. Turkey, however, successfully managed its economic rebalancing process in this challenging environment. In the domestic energy sector, major steps were taken in strategic priority areas such as domestic and renewable energy, liberalization of the energy market and uninterrupted supply.

Çalık Enerji continues to move forward despite the global economic fluctuations thanks to the deeply-rooted corporate culture of its parent Çalık Holding as well as its industry expertise and experience. As we execute our globalization strategy with determination and speed to ensure our ongoing sustainable success, we embrace our responsibility to represent Turkey in the geographies we operate.

While increasing investment spending to shape the future in 2019, Çalık Enerji once again achieved a solid performance that further bolstered its financial structure and competitiveness. Our year-end results confirmed that we further improved our capacity to create value. As of end-2019, Çalık Enerji reported assets totaling TL 7.0 billion and shareholders' equity amounting to TL 3.6 billion. For the year, we recorded total turnover of about TL 4.2 billion. While successively combining growth and profitability in 2019, a highly challenging and competitive year, we posted EBITDA of TL 1,374 million and an EBITDA margin of 32%. In addition, Çalık Enerji ranked 54th in the Fortune 500 Top Turkish Companies List, demonstrating our ability to constantly create added value.

We are expanding further with new investments.

Çalık Enerji is committed to contribute to regional development and employment by adding value to people's lives in every region where it operates. We have the capability to successfully execute major projects and investments across different geographies in a short time. How are we able to do this? Because we innately understand the key concepts of value creation, quality and responsibility.

In 2019, we further boosted the solid global reputation of our Çalık Enerji brand with new investments. Now, I would like to briefly summarize the 2019 activities of our Company.

The commissioning of the TAP500 project, where Çalık Holding was the sole investor and operator, was the most exciting development during this reporting period. Under the project, Turkmenistan electricity will be transported to South Asian countries. We initiated the first phase operations and held the first stage groundbreaking ceremony. TAP500 will significantly contribute to Turkmenistan's economy and regional development. Meanwhile, the Mary-3 Combined Cycle Power Plant, which will play a key role in Turkmenistan's energy supply security, started production during the year. We continue our operation monitoring activities under this project.

In 2019, Çalık Enerji had the opportunity to execute another major project in Turkmenistan. In addition to the renewal of energy equipment, the Service Center Project is one of the most extensive maintenance initiatives we have ever undertaken as a company. This large-scale, high profile project is very important to us.

Çalık Enerji aims to deliver the Tedzani-4 Hydroelectric Power Plant in Malawi in September 2021. We also plan to utilize the team and machinery currently in Malawi for similar projects in the region. To evaluate electricity production and distribution opportunities in Sub-Saharan Africa, we are focusing on projects funded by reliable, multilateral institutions, such as World Bank and African Development Bank.

We focus on clean energy production for a better future.
Çalık Enerji operates and invests as a leading player in the energy industry and with the responsibility of safeguarding our common future on a global scale. We formulated our growth strategy based on safe energy supply as well as sustainable and efficient use of natural resources. We do our part to increase the share of renewable energy sources in Turkey's total electricity production – one of the most important objectives of the National Energy and Mining Policy.

Solar energy is one of our key growth areas. With this approach, we continuously boost our contribution to Turkey's sustainable future and the global transition to a low carbon economy. In 2019, Çalık Enerji added

Çalık Enerji operates and invests as a leading player in the energy industry and with the responsibility of safeguarding our common future on a global scale.

Message from the General Manager

Setting an example in Turkish electricity distribution thanks to its business model based on uninterrupted and high quality energy supply solutions, YEDAŞ continues to lead the sector forward. In 2019, YEDAŞ commissioned the first battery energy storage facility in the country.

Solar energy is one of our key growth areas. With this approach, we continuously boost our contribution to Turkey's sustainable future and the global transition to a low carbon economy.

5.94 MW of installed power capacity to its domestic investment project in Amasya. We also included a solar energy facility with 2.05 MW installed power in Ankara-Bala to our renewable energy portfolio. Besides the operation and maintenance works of the capacity in our portfolio, we provide operation and maintenance services for solar power plants with total installed power of 54 MW.

In August 2019, we executed a Memorandum of Understanding for Hybrid Power Plants for the African market in conjunction with Mitsubishi Heavy Industries Forklift, Engine & Turbocharger Holdings Ltd. (M-FET). We also executed a pilot project at Çalık Denim's textile factory in Malatya.

Our distribution and retail companies are boosting their competitive power

Setting an example in Turkish electricity distribution thanks to its business model based on uninterrupted and high quality energy supply solutions, YEDAŞ continues to lead the sector forward. In 2019, YEDAŞ commissioned the first battery energy storage facility in the country.

Aras EDAŞ, our joint affiliate with Kiler Group, serves more than 1 million subscribers and supplies power to more than 2.2 million people. The company declared 2019 as the "year of quality and efficiency." Toward this objective, Aras EDAŞ stepped up its investment spending on efficiency, simplification and digitalization to create more added value.

KEDS, a subsidiary of Limak Holding, meets all of Kosovo's net electrical energy consumption needs. The company continues to rapidly expand its subscriber base and the volume of electricity it distributes.

Bursagaz is one of the natural gas distribution companies in which we are a shareholder. At year-end 2019, Bursagaz's network length totaled 6,651 km and it distributed 2.28 billion m^3 of natural gas. Meanwhile, Kayserigaz became the first company to receive TURKAK accredited Occupational Health and Safety Management System ISO 45001 certification.

YEPAŞ, our electricity retail and sales company, took steps to boost its financial resilience and accelerate its sustainable growth in 2019 – a difficult year for the energy sector. YEPAŞ continued efforts to increase synergy created with Group Companies. During the year, the company transformed its service points into YEPAŞ N Kolay Authorized Transaction Centers in cooperation with Aktif Bank. In addition, YEPAŞ became the first company to integrate e-Government functionality in its operations.

We lead the energy sector in digitalization
Çalık Enerji sees the digitalization of all links of its value chain as an inevitability. As a result, we carry out efforts to make all our business processes and environmental elements organically smart. IQB Solutions, a firm we established, develops products for international markets and provides technology, software and consultancy services. IQB Solutions focuses on big data analytics, IoT technologies and digitalization. The IQPower product that we developed processes more than 500 million pieces of data and converts them into purposeful reports with its big data systems infrastructure. Following the launch of IQWind in 2018, the first module of IQPower which features smart end point technology, we developed the IQSolar module. In 2019, Microsoft recognized IQPower Suite's excellence with the "Most Successful Digital Transformation" award in energy production. With these two modules, Çalık Enerji is taking a big step forward in developing a compact digital product for the energy sector.

We continuously improve our sustainability-based corporate structure
Çalık Enerji shapes its strategies not solely on profitability but around an integrated approach to sustainability. We aim to make a long-term contribution to the national economy and social development by providing local employment in the regions where we operate while protecting the natural environment. Our goal is to add value to human life everywhere we conduct business operations. To this end, in 2019, Çalık Enerji demonstrated its commitment to sustainability by becoming a signatory to the United Nations Global Compact. This volunteer initiative encourages businesses around the world to adopt common sustainable and socially responsible principles and foster a shared sustainability culture.

By providing long-term value to future generations, Çalık Enerji aims to be an effective stakeholder in the geographies where it operates. We plan to continue developing projects with a wide impact not only in Turkey but also abroad as a company strongly committed to social responsibility.

We focus on achieving healthy growth and increasing the value we create for our stakeholders
For 2020, Çalık Enerji has prioritized capitalizing on existing energy generation and distribution opportunities in the Sub-Saharan region of Africa. We will continue executing tender and bidding processes simultaneously in different geographies. We aim to ramp up our operational excellence and Industry 4.0 investments, the foundation of our competitive strength, with a focus on advanced technology and innovation.

Çalık Enerji aims to continue supporting the Turkish economy and creating high added value for its stakeholders. In addition, we plan to lead our stakeholders and society as whole forward in terms of sustainability.

I wholeheartedly believe that we will extend our track record of success in 2020. I hereby would like to express my gratitude to our employees who have contributed to our many successes in 2019, our driving force Çalık Holding, and our stakeholders for their trust in our Company.

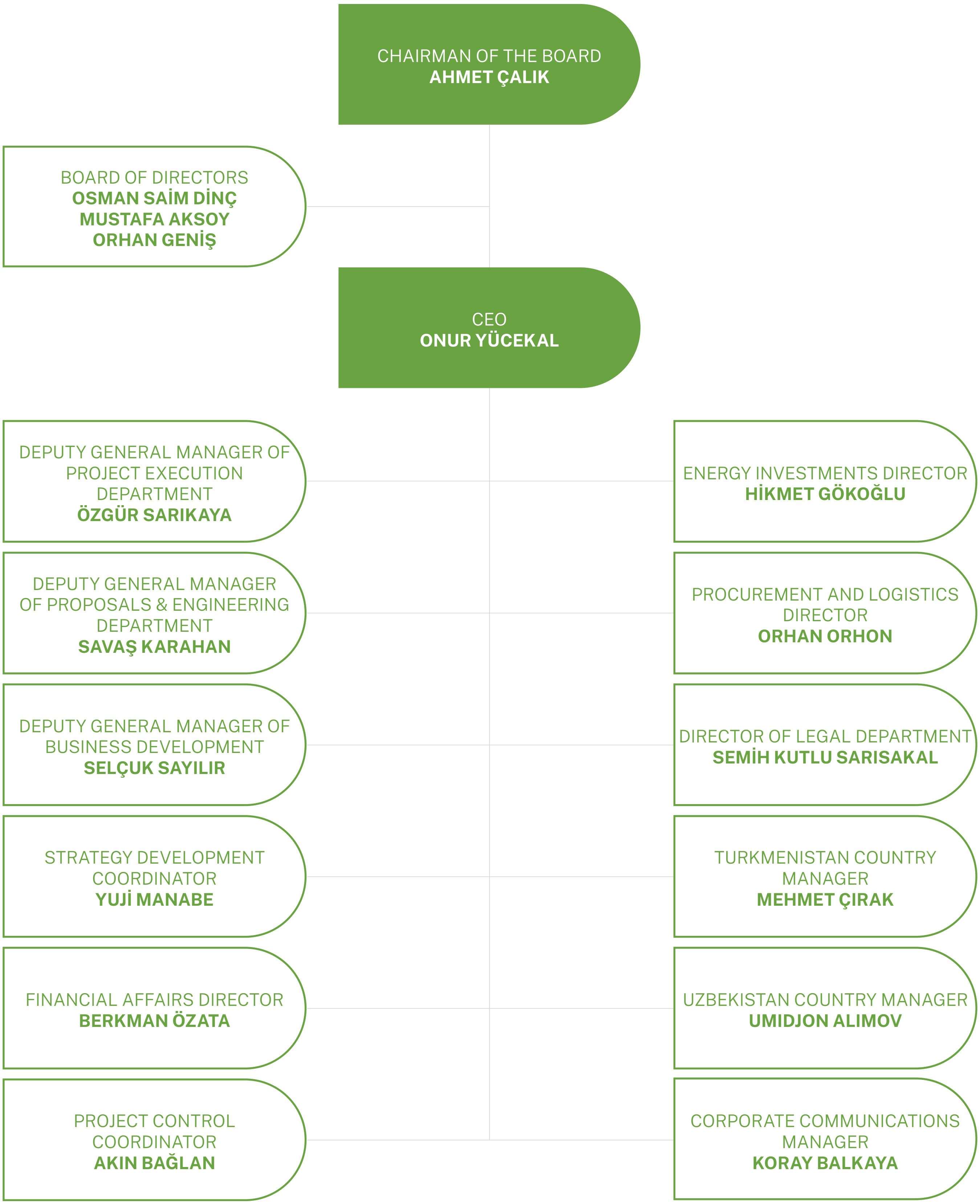
Kind regards,

Onur YÜCEKAL
CEO

Çalık Enerji sees the digitalization of all links of its value chain as an obligation. As a result, we carry out efforts to make all our business processes and environmental elements organically smart.

Çalık Enerji aims to continue supporting the Turkish economy and creating high added value for its stakeholders. In addition, we plan to lead our stakeholders and society as whole forward in terms of sustainability.

Organizational Chart



Executive Management

CEO
ONUR YÜCEKAL

DEPUTY GENERAL MANAGER OF PROJECT EXECUTION DEPARTMENT
ÖZGÜR SARIKAYA

DEPUTY GENERAL MANAGER OF PROPOSALS & ENGINEERING DEPARTMENT
SAVAŞ KARAHAN

DEPUTY GENERAL MANAGER OF BUSINESS DEVELOPMENT
SELÇUK SAYILIR

ENERGY INVESTMENTS DIRECTOR
HİKMET GÖKOĞLU

PROCUREMENT AND LOGISTICS DIRECTOR
DR. ORHAN ORHON

FINANCIAL AFFAIRS DIRECTOR
BERKMAN ÖZATA

STRATEGY PLANNING COORDINATOR
YUJI MANABE

DIRECTOR OF LEGAL DEPARTMENT
SEMİH KUTLU SARISAKAL

PROJECT CONTROL COORDINATOR
AKIN BAĞLAN

CORPORATE COMMUNICATIONS MANAGER
KORAY BALKAYA

TURKMENISTAN COUNTRY MANAGER
MEHMET ÇIRAK

UZBEKISTAN COUNTRY MANAGER
UMIDJON ALIMOV

An Overview of the Energy Sector in 2019

According to "World Energy Outlook 2019 Report" issued by IAE, renewable energy technologies continue their leading position in new generation capacity investments in the global market.

2019 CLEAN ENERGY INVESTMENTS

282.2

USD billion

2019 PROJECTION OF THE SHARE OF WIND AND SOLAR POWER IN ELECTRIC PRODUCTION

12%

TOTAL INSTALLED CAPACITY IN TURKEY

91,267

MW

World Energy Market

The fact that the USA and China failed to reach a permanent agreement on trade wars caused 2019 to be a challenging year for the energy sector. Furthermore, the agenda of global energy market continues to be determined by the uncertainty between the transition to low-carbon energy on a global scale and the need for more energy to support economic growth and rising prosperity, especially in developing countries.

In spite of the increase in demand, the rate of increase in energy investments is showing a decreasing trend. The reduction in renewable energy investment costs played a major role in this slowdown. According to Bloomberg New Energy Finance (BNEF) data, USD 282.2 billion was spent on investment in 2019 in the field of clean energy technologies, with an increase of 1% compared to the previous year.

On the other hand, although the rate of increase in investment expenditures has decreased, it is seen that low-carbon project activities have increased remarkably. 2019 Renewable Energy Report issued by International Energy Agency (IAE) predicts that the share of wind and solar in world electricity production, which is 7% today, will increase to 12% by 2024.

Although the current energy system is far from reaching the targets set with the Paris Climate Agreement according to the IAE "World Energy Outlook 2019 Report," renewable energy technologies continue to lead the way in new generation capacity investments in the global market. It is expected that; a renewable energy capacity equal to the installed power of the USA (1,200 GW) will be added to the world electricity capacity within 5 years. It is predicted that 60% of this capacity will be composed of solar energy alone.

In the geographical distribution of investments, some impressive findings stand out. The slowdown in the growth rate of Chinese economy causes the energy investment market in the country to be contracted. In the last period, the USA and India are trying to catch up with the leader China.

In the next period, the African continent is expected to have an increasing impact on global energy demand. The fact that Africa, which holds 17% of the global population accounts for only 4% of the total energy investments in the world, reveals the potential of the continent. According to the Policies Scenario described in the "World Energy Outlook 2019 Report," the increase in oil consumption of Africa is expected to surpass China's in 2040.

Although the lack of network leads African countries to move out of classical solutions and towards mini grids, which is a small-scale solution, major investments are required in the energy sector in order to meet the increasing demand. It is expected that the renewable energy facility installation costs will decrease further and the policies regarding distributed energy system will change significantly in the next 5 years.

While energy security stands as a major issue in 2019, petrol maintains its dominant position in this field. A series of factors such as cyber security and abnormal weather conditions were included to the classical threats.

Turkey's Energy Sector

Growth in population and income, industrialization and rising urbanization have all triggered the demand for energy strongly in Turkey, where the installed capacity rose by some 3% YoY to 91,267 MW as of the end of 2019. Turkey has recently turned to more domestic and renewable resources in electricity generation in order to reduce its energy import bill and this caused the distribution of installed power based on resource.

As the share of natural gas cycle power plants in installed capacity decreased remarkably in 2019, investments in solar and wind power plants are increasing rapidly. While solar energy investments make up the biggest share in the increase in installed power with 932 MW, it was followed by lignite and coal power plant investments with an increase of 756 MW of installed power and wind energy investments ranked third with 649 MW. As of the end of the year; the share of hydroelectricity within installed power was 31%, while the share of natural gas decreased to 28%, and the share of coal was 22% as in the last two years. The share of wind stood at 8% as in the previous year and the share of solar within total installed power rose to 6.5%.

In 2019, electricity production in Turkey fell from 304.8 TWh at the end of 2018 to 304.3 TWh. Electric consumption in our country shown a similar decrease and fell from 304.8 TWh at the end of 2018 to 303.7 TWh at the end of 2019. The share of domestic and renewable energy-driven plants in production exceeded 60%.

In order to overcome the handicap caused by its limited oil and natural gas reserves, Turkey exerts efforts to leverage its closeness to the region where majority of such reserves are located. In the meanwhile, it has become a central player in regional trade thanks to its strong economy and the relations established in energy diplomacy. After the opening of the Silk Road section in 2018, the fact that Europe connections of Trans Anatolian Natural Gas Pipeline (TANAP) was opened in 2019 was been an important step towards Turkey's goal of becoming an energy trade center.

To make it possible for energy consumers to become energy investors at the same time, "Regulation on Unlicensed Electricity Production in Electricity Market" was published in 2019, in which the support for the use of renewable energy continued. This paved the way for the active installation of roof type applications. Unlicensed energy level was increased from 1 MW to 5 MW.

The establishment of the Energy Venture Capital Fund announced within the scope of the New Economy Program (YEP), suspension of the production of thermal power plants without flue gas filters and the Wind YEKA-2 tender were other developments that were important to the Turkish energy sector in 2019.

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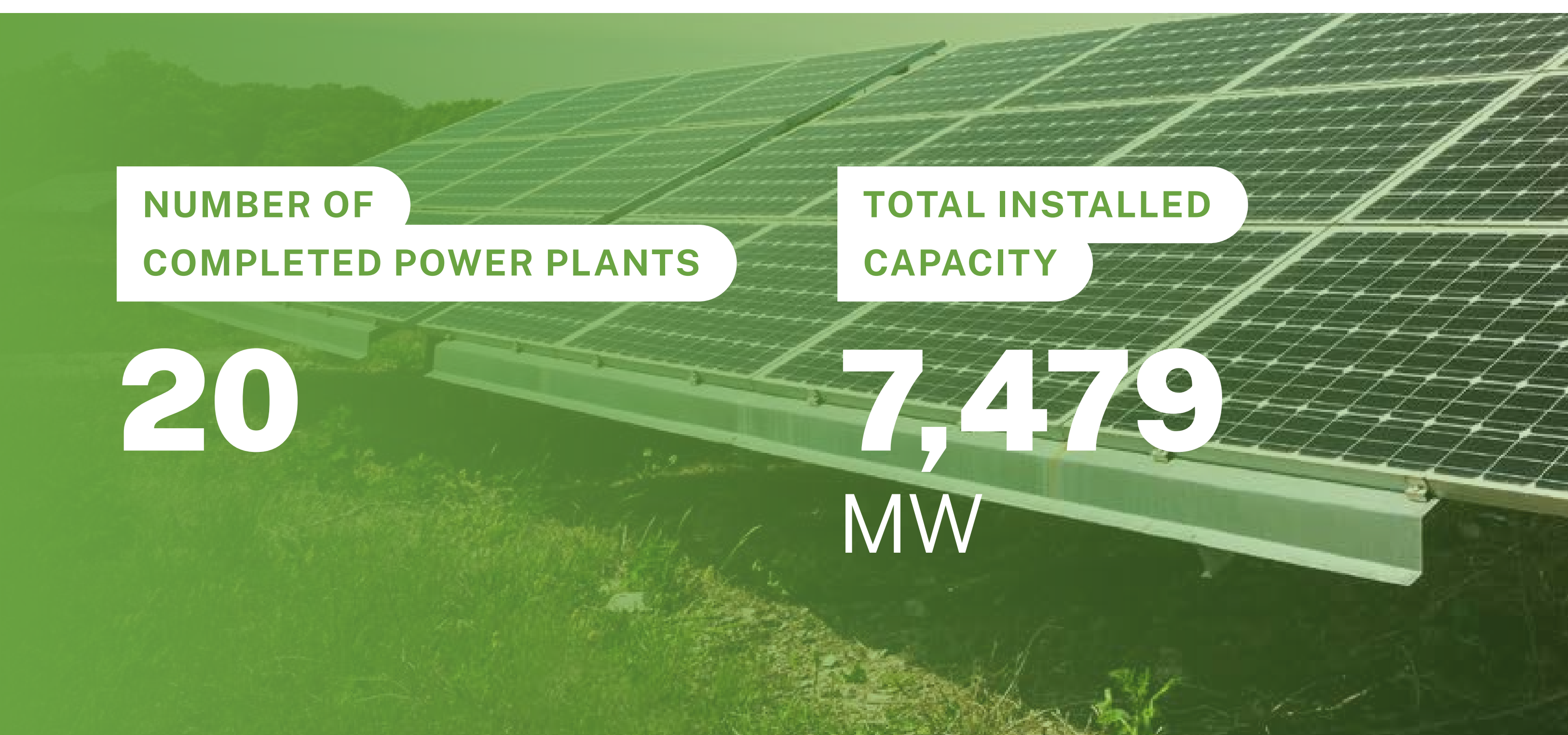
EPC

We develop innovative solutions for a sustainable future.

As a reputable player in this field that commissions mega projects in the energy sector, Çalık Enerji family builds on its achievements every day. In 2019, we focused on business development activities with innovative approaches in EPC. We started to see the positive results of this focus.

Ayça Bayram
Budget Planning and Reporting Junior Associate



NUMBER OF COMPLETED POWER PLANTS

20

TOTAL INSTALLED CAPACITY

7,479
MW

EPC

With the successful projects it has completed; Çalık Enerji proves that it has the capacity to provide “EPC (Engineering-Procurement-Construction)” service with ease.

MARY-3 COMBINED CYCLE POWER PLANT

1,574 MW

The Mary-3 Combined Cycle Power Plant was the largest combined cycle power plant not only in Turkmenistan but also in Central Asia that was built in one stage and equipped with modern technologies on the date its construction was complete.

PRE-AGREEMENT SIGNED FOR TAP500

500 kV

Çalık Enerji signed the preliminary contract regarding the 500 kV electricity transmission line (TAP500), which will be conducted in parallel with the Turkmenistan, Afghanistan, Pakistan natural gas pipeline project, the most important energy project in Asia.

AL-KHAIRAT POWER PLANT

1,250

MW

Innovation and digitalization are indispensable for Çalık Enerji, which establishes the appropriate communication infrastructure between construction sites and control centers through innovative solutions based on artificial intelligence and neural systems.

Çalık Enerji believes that advanced technologies and program infrastructure allow for successful completion of its works. Furthermore, the Company proves its capacity of providing "EPC (Engineering-Procurement-Construction)" services through the projects it undertakes. Engineering, procurement, construction, operation and commissioning, warranty-period services, and spare part support are within the scope of the activities of the Company.

Within this scope, the Company serves in the following areas of activity:

- Natural gas combined and simple cycle power plants;
- Renewable energy plants;
- Thermal plants;
- Switchyards and transformer substations; and
- High-voltage energy transmission line.

Innovation and digitalization are indispensable for Çalık Enerji, which establishes the appropriate communication infrastructure between construction sites and control centers through innovative solutions based on artificial intelligence and neural systems. The Investment and Funding Management Program, SAP, and other special software programs provide the Company with sufficient capability to track technical progress, timetables, and the financial performance during the execution of a project.

Exclusive partnerships with well-known firms, including GE, Mitsubishi and Honeywell, have significantly contributed to the enhancement of the Company's EPC capacity.

Çalık Enerji has attained outstanding success through its engineering, construction, procurement and logistics skills in EPC projects it has undertaken in Turkmenistan since early 2000s. Propelled by this success, the Company has commissioned numerous projects in different countries in the world that range from power plants and transmission lines to electricity distribution and energy infrastructure projects.

Çalık Enerji has successfully completed numerous power plants in various regions including Turkmenistan, Iraq, Georgia, Libya and Yemen. Among these projects, the Mary-3 Combined Cycle Power Plant was the largest combined cycle power plant not only in Turkmenistan but also in Central Asia that was built in one stage and equipped with modern technologies on the date its construction was complete. The 1,250 MW "Al-Khairat Power Plant" Çalık Enerji constructed in 2014 was selected the world's best "Industrial Project" by Engineering New Record (ENR), the most prestigious contracting and engineering magazine in the globe, being deemed worthy of the "World's Number One" award in the category of "Industrial Plants."

Meanwhile, Çalık Enerji completed the "AST Project (Increasing the Reliability of Power Supply to the City of Ashgabat)," replacing the entire infrastructure of the city in single stage with modern technologies for the first time in the world. This has become an outstanding achievement for the Company regarding energy infrastructure projects. Load dispatch centers, high voltage transmission lines and switchyards were constructed as part of the project.

Çalık Enerji continues to carry out activities diligently, with the pride of having executed numerous important projects.

Activities in 2019

Çalık Enerji signed the preliminary contract regarding the 500 kV electricity transmission line (TAP500), which will be conducted in parallel with the Turkmenistan, Afghanistan, Pakistan natural gas pipeline project, the most important energy project in Asia. The USD 1.6 billion project, which will be managed by Çalık Holding, is one of the most important projects undertaken by a Turkish company in Asia. Currently exporting electricity to Afghanistan and Iran, Turkmenistan will start selling electricity to Southeast Asian countries upon the completion of the electricity transmission project that will proceed in parallel with the natural gas pipeline.

EPC

Çalık Enerji continues its activities for the "Basra Seaport Renewal and Rehabilitation Project," carried out with Mitsubishi Corporation in the Basra Region of Iraq and opened by the General Company for Ports of Iraq.

Within 2019, in order to ensure stable and reliable production of the Gas Turbine fleet under the Turkmenistan Ministry of Energy, the Turbine Fleet Maintenance Project's contract process, which includes many firsts was completed in cooperation with Çalık Enerji and Turkmenenergo.

The TAP500 project is anticipated to be finalized in three years following the commencement of construction.

Çalık Enerji continues its support to Mary-3 Power Plant in Turkmenistan which is the largest combined cycle power plant of Central Asia with a capacity of 1,574 MW for the 2 years warranty period in order to ensure its uninterrupted operation.

Çalık Enerji continues its activities for the "Basra Seaport Renewal and Rehabilitation Project," carried out with Mitsubishi Corporation in the Basra Region of Iraq and opened by the General Company for Ports of Iraq ("GCPI"). Çalık Enerji will play a vital role in the EPC section of the tender in partnership with Gap İnşaat as a subcontractor. Mitsubishi Corporation will be in charge of project coordination and provision of core products and services of Japanese origin as the main contractor.

The agreement for the Capacity Increase Project for the 19.5 MW Tedzani Hydroelectric Power Plant, which is the first power plant project to be undertaken by Çalık Enerji and Mitsubishi Corporation in Sub-Saharan Africa was signed in 2017. Under this agreement, Çalık Enerji will deliver a turnkey project including engineering, construction, hydromechanics, electromechanical installation, and commissioning works. Construction works, which commenced in June 2018 upon finalization of official permits, are ongoing at full speed. The project is intended to increase the total installed capacity of Tedzani 1, 2 and 3 Hydroelectric Power Plants, located 70 km from Blantrye, the second largest city of Malawi, by an additional 18 MW. As of the end of 2019, 71% completion rate was achieved in the project.

Within 2019, in order to ensure stable and reliable production of the Gas Turbine fleet under the Turkmenistan Ministry of Energy, the Turbine Fleet Maintenance Project's contract process, which includes many firsts was completed in cooperation with Çalık Enerji and Turkmenenergo. The project is the largest maintenance project to be carried out by Çalık Enerji. Within a period of approximately 3 years, primarily old type gas turbines will be rehabilitated using new technological solutions and parts and by performing heavy maintenance. Additionally, upcoming periodic heavy maintenance works will be carried out for other newer units. As a result of these rehabilitation/upgrade and other maintenance works, the losses will be recovered and an important production increase will be achieved.

This is the first project that the Company will execute in Turkmenistan by providing financing. The funding of the project will be provided with the export loans to be utilized from Exim-supported (Swiss "SERV") European Banks (Credit Suisse and Commerzbank).

Also, within the scope of the project, a "Service Center" will be installed with includes a repair workshop for turbine spare parts (capital parts; burning rooms, blades etc.) and all kinds of maintenance works. Çalık will make a very important contribution to reducing Turkmenistan's foreign-source dependency with the repair workshop to be built in MoE/Turkmenenegro within the scope of the Project.

For the "Service Center" to be built within the scope of the project, GE company will be transferring its capital part repair technology of all GE Fr. 9E and 6B type turbines to Turkmenenergo.

Çalık Enerji aimed to have a pivotal role in energy and energy infrastructure projects in fast-growing markets including Africa and the Middle East and has this year expanded its operations venturing into transport, desalination and hybrid energy sectors.

Çalık Enerji aimed to have a pivotal role in energy and energy infrastructure projects in fast-growing markets including Africa and the Middle East and has expanded its operations in 2019 venturing into transport, desalination and hybrid energy sectors.

EPC

It is expected that Tedzani-4 Hydroelectric Power Plant Project, which is the first power plant project undertaken by Çalık Enerji and Mitsubishi Corporation in Sub-Saharan Africa to be completed in September 2021.

ONGOING PROJECTS

Tedzani Hydroelectric Power Plant Capacity Increase - Tedzani-4

Plant Type: River
Location: Malawi
Status: Under Construction
River: Shire River
Installed Capacity: 19.3 MW
Start of Commercial Enterprise: December 2020

COMPLETED PROJECTS

Mary-3 Combined Cycle Power Plant

Capacity: 1,574 MW
Equipment: 4 x GE F.03 Multi-Shaft Gas Turbines + 4 x HP-LP Waste Heat Boilers + 2 x Steam Turbines
Voltage Level: 500 kV & 220 kV
Start Date: July 2015
Delivery Date: September 2018
Employer: Turkmenistan Ministry of Energy
Scope: Turnkey EPC Prime Contractor

Watan Simple Cycle Power Plant

Capacity: 254 MW
Equipment: 2 x GE 9E PG9171
Voltage Level: 110 kV & 220 kV
Start Date: January 2015
Delivery Date: June 2016
Employer: Turkmenistan Ministry of Energy
Scope: Turnkey EPC Prime Contractor

Aden Simple Cycle Power Plant

Capacity: 60 MW
Equipment: 2 x GE TM2500+
Voltage Level: 33 kV
Start Date: January 2017
Delivery Date: May 2017
Employer: Republic of Yemen/ General Electricity Company “PEC”
Scope: Turnkey EPC Prime Contractor

EPC

Another project completed by Çalık Enerji, Increasing the Reliability of Power Supply to the City of Ashgabat (AST) is drawing attention as the highest budget project in which the entire infrastructure of a city is replaced.

TAMAMLANAN PROJELER

Increasing the Reliability of Power Supply to the City of Ashgabat 2 & 3

Transformer Substations: 5 x 220 kV; 6 x 110 kV; 18 x 35 kV; 43 x 10 kV
Cabling: 0.95 km 220 kV, 22.43 km 220 kV Aerial Line, 8.45 km 110 kV, 27.2 km 110 kV Overhead Line, 93 km 35 kV, 2.35 km 35 kV Overhead Line, 418.72 km 10 kV
Monitoring and Management System: SCADA Communication System
Start Date: August 2014
Delivery Date: October 2016
Employer: Governorship of Ashgabat
Scope: Turnkey EPC Prime Contractor

Al-Khums Simple Cycle Power Plant

Capacity: 550 MW
Equipment: 2 x GE 9FA MS9001 FA
Voltage Level: 220 kV
Start Date: June 2014
Delivery Date: February 2017
Employer: Libya General Electricity Company
Scope: Turnkey EPC Prime Contractor

Gardabani Natural Gas Combined Cycle Power Plant

Installed Capacity: 230 MW
Equipment: 2 x GE 6FA, 2 x Nooter Eriksen HRSG and Doosan-Skoda Steam Turbine
Voltage Level: 220 kV
Start Date: October 2013
Delivery Date: July 2015
Employer: Partnership Fund & GOGC
Main Contractor: Çalık Enerji Sanayi ve Ticaret A.Ş.
Scope: Turnkey EPC

Derweze Simple Cycle Power Plant

Capacity: 504.4 MW
Equipment: 4 x GE 9E PG9171-B (Frame 9E)
Voltage Level: 110 kV / 220 kV
Start Date: July 2013
Delivery Date: September 2015
Employer: Ministry of Energy, Turkmenistan
Scope: Turnkey EPC Prime Contractor

Ahal-2 Simple Cycle Power Plant

Capacity: 252.2 MW
Equipment: 2 x GE 9E PG9171
Voltage Level: 110 kV & 220 kV
Start Date: July 2013
Delivery Date: December 2014
Employer: Turkmenistan Ministry of Energy
Scope: Turnkey EPC Prime Contractor

Lebap Simple Cycle Power Plant

Capacity: 149.2 MW
Equipment: 3 x GE LM6000
Voltage Level: 110 kV
Start Date: May 2013
Delivery Date: February 2014
Employer: Turkmenistan Ministry of Energy
Scope: Turnkey EPC Prime Contractor

Mary-2 Simple Cycle Power Plant

Capacity: 146.7 MW
Equipment: 3 x GE LM6000
Voltage Level: 110 kV
Start Date: May 2013
Delivery Date: February 2014
Employer: Turkmenistan Ministry of Energy
Scope: Turnkey EPC Prime Contractor

Ahal-3 Simple Cycle Power Plant

Capacity: 141.7 MW
Equipment: 3 x GE LM6000
Voltage Level: 110 kV
Start Date: May 2013
Delivery Date: February 2014
Employer: Turkmenistan Ministry of Energy
Scope: Turnkey EPC Prime Contractor

Increasing the Reliability of Power Supply to the City of Ashgabat 1

Transformer Substations: 16 X 110 kV, 11 x 35 kV, 97 x 10 kV
Cabling: 111.3 km 110 kV, 31.5 km 110 kV Aerial line, 8 km 35 kV, 100 km 10 kV
Monitoring and Management System: 2 x SCADA and Control Facilities
Start Date: September 2012
Delivery Date: December 2015
Employer: Governorship of Ashgabat
Scope: Turnkey EPC Prime Contractor

Nainawa Simple Cycle Power Plant

Capacity: 750 MW
Equipment: 6 x GE PG9161-E (Frame 9E)
Voltage Level: 132 kV & 400 kV
Start Date: March 2011
Delivery Date: January 2014
Employer: Iraq Ministry of Electricity
Scope: Turnkey EPC Prime Contractor

Al-Khairat Simple Cycle Power Plant

Capacity: 1,250 MW
Equipment: 10 x GE PG9161-E (Frame 9E)
Voltage Level: 132 kV & 400 kV
Start Date: April 2011
Delivery Date: November 2013
Employer: Ministry of Electricity, Iraq
Scope: Turnkey EPC Prime Contractor

Balkanabat-2 Simple Cycle Power Plant

Capacity: 254.2 MW
Equipment: Simple Cycle, 2xGE-PG9161-E (Frame 9E)
Voltage Level: 220kV
Start Date: July 2008
Delivery Date: April 2010
Employer: Turkmenistan Ministry of Energy
Scope: Turnkey EPC Prime Contractor

Dashoguz Simple Cycle Power Plant

Capacity: 254.2 MW
Equipment: 2xGE-PG9161-E (Frame 9E)
Voltage Level: 110 kV
Start Date: February 2006
Delivery Date: October 2007
Scope: Turnkey EPC Prime Contractor

Ashgabat Simple Cycle Power Plant

Capacity: 254.2 MW
Equipment: 2 x GE PG9161-E (Frame 9E)
Voltage Level: 110 kV
Start Date: December 2004
Delivery Date: February 2006
Employer: Turkmenistan Ministry of Energy
Scope: Turnkey EPC Prime Contractor

Amuderya High Voltage Electricity Transmission/Distribution

Location: Turkmenabad - Turkmenistan
Start Date: January 2007
Delivery Date: March 2007
Employer: Turkmenistan Ministry of Energy
Scope: Engineering, Procurement, Logistic and Assembly Supervisor

Abadan Simple Cycle Power Plant

Capacity: 123.6 MW
Equipment: Simple Cycle, GE-PG9161-E (Frame 9E)
Start Date: February 2002
Delivery Date: October 2003
Employer: Turkmenistan Ministry of Energy
Scope: Turnkey EPC Prime Contractor

Balkanabat Simple Cycle Power Plant

Capacity: 126.4 MW
Equipment: Simple Cycle, 3 x GE-PG6581-B (Frame 6B)
Voltage Level: 35 kV & 110 kV
Start Date: November 2002
Delivery Date: October 2003
Employer: Turkmenistan Ministry of Energy
Scope: Turnkey EPC Prime Contractor

Turkmenbashi Refinery Simple Cycle Power Plant

Capacity: 126.4 MW
Equipment: Simple Cycle, 3 x GE-PG6581-B (Frame 6B)
Voltage Level: 35 kV & 110 kV
Start Date: September 2001
Delivery Date: May 2003
Employer: Turkmenistan Ministry of Oil and Natural Gas
Scope: Turnkey EPC Prime Contractor

Electricity Generation

Renewable energy means sustainable success.

As Çalık Enerji, we expend our production portfolio in targeted markets by following a growth strategy that includes projects with high profitability that are environmentally friendly and based on renewable resources. We aim to achieve a 500 MW portfolio generating energy from mostly renewables by 2023.

Taha Dülgar

Project Junior Associate

RENEWABLE ENERGY PORTFOLIO SIZE

101

MW

Electricity Generation

Çalık Enerji continues its activities in terms of power generation with; Adacami Hydroelectric Power Plant (30 MW), Demircili Wind Power Plant (40 MW), Sarpıncık Wind Power Plant (32 MW), Çorum (9.25 MW), Amasya (5 MW), Erzincan (5 MW), Erzurum (5 MW), Polatlı (1 MW) and Amasya Çaydibi and Doğu (5.94 MW) Solar Power Plant Projects.

ADACAMI HYDROELECTRIC POWER PLANT

30 MW

It is the first power generation plant that is located in Rize-Güneysu and whose project development, feasibility and construction stages were completed and commissioned.

DEMİRCİLİ WIND POWER PLANT

40 MW

Within the scope of 2019 activities; project planning and permit stages are ongoing for the 3.6 MW capacity increase of 40 MW Demircili Wind Power Plant located in İzmir/Urla.

TOTAL ELECTRIC GENERATION OF SOLAR POWER PLANTS

335

million kWh

TARGETED RENEWABLE ENERGY SOURCE

500

MW

Since the day it was founded, Çalık Enerji has established a valuable repository of knowledge and services by consolidating its experience in project development, engineering, procurement, construction and assembly, project management, operation, and maintenance. As a global player of the energy sector, Çalık Enerji is driven by its extensive experience and knowledge in different regions while following a growth strategy built on effective, environmentally friendly projects comprising renewable resources. The Company expands its generation portfolio in target markets in line with this strategy.

Deriving power from the achievements and experiences earned up to date, Çalık Enerji diligently continues to carry out renewable energy activities in Turkey. The Company completed the following projects: Adacami Hydroelectric Power Plant (30 MW) commissioned in Güneysu, Rize in 2013; Demircili Wind Power Plant (40 MW) and Sarpıncık Wind Power Plant (32 MW) commissioned in İzmir in 2016; and Solar Power Plants in Çorum (9.25 MW), Amasya (5 MW), Erzincan (5 MW), Erzurum (5 MW), Polatlı (1 MW) commissioned in 2016 and 2017 and Amasya Çaydibi and Doğu (5.94 MW) commissioned in 2019.

Çalık Enerji conducts operating and maintenance activities with its own teams partially in wind power plants and by 95% in hydro and solar power plants among the electric power plants that operate commercially. Çalık Enerji also operates the 230 MW Gardabani Natural Gas Combined Cycle Power Plant in Georgia.

The first power plant, for which the Company completed the project development, feasibility and construction phases and commenced operation, is Adacami HPP in Güneysu, Rize. Demircili WPP in Urla, İzmir, Sarpıncık WPP in Karaburun, İzmir and solar power plants in five different cities all together generate 335 million kWh of energy. Propelled by this experience in renewable-based power plants, the Company has begun executing its own investment projects and providing the world's largest energy investors with EPC services.

As part of the strategy to ensure diversity in EPC works and expand the investment portfolio, Çalık Enerji has accelerated efforts regarding electricity generation from rooftop solar panels for industrial and commercial enterprises. Research was conducted regarding the sector and capacity for solar power plants on rooftops, examining self-consumption models; target markets were determined in the light of the business volume that would emerge upon amendments to existing regulations. Within this scope, technical and commercial business models were formulated. Through energy generated on rooftops, the whole or part of the consumption will be covered by solar energy in the areas where the plant is based. This is how companies will have less reliance on the grid, get exemption from distribution fees and other costs in proportion to the amount of generation, reduce their carbon footprint, support renewable energies - which have a pivotal role for our country - and contribute to sustainability.

Çalık Enerji aims to achieve a 500 MW portfolio generating energy from mostly renewables by 2023. To achieve this goal, the Company continues its project development activities in different countries, especially in Turkey.

Electricity Generation

Doğu and Çaydibi Solar Power Plant (SPP) projects of Çalık Enerji with a total capacity of 5.94 MWp/5Mwe located in Amasya have initiated commercial power production as of December 11, 2019.

In August, a memorandum of understanding was executed with Mitsubishi Heavy Industries Forklift, Engine & Turbocharger Holdings, Ltd. (M-FET) for the Hybrid Power Plants offered for the African market.

Activities in 2019

- Construction of the 19.5 MW Tedzani-4 Hydroelectric Power Plant Project in Malawi, which is Çalık Enerji's first renewable EPC project achieved a 71% capacity completion rate.
- Project planning and permit works are ongoing for the 3.6 MW capacity increase for the 40 MW Demircili Wind Power Plant located in İzmir/ Urla.
- Approval is received from the Georgian Parliament for a 50 MW Wind Power Plant to be installed in Georgia. Pre-construction works are ongoing.
- In August, a memorandum of understanding was executed with Mitsubishi Heavy Industries Forklift, Engine & Turbocharger Holdings, Ltd. (M-FET) for the Hybrid Power Plants offered for the African market. In this framework, a pilot project has started to be implemented in Çalık Denim's textile factory located in Malatya.
- A solar energy project has been started on the roof of Çalık Denim Facility and it is expected to be completed in the first quarter of 2020. Doğu and Çaydibi Solar Power Plant (SPP) projects of Çalık Enerji with a total capacity of 5.94 MWp/5Mwe located in Amasya have initiated commercial power production as of December 11, 2019.
- Studies were initiated regarding on-site generation plants. Strategies were formulated for the model, and hybrid (solar, diesel, storage) power station package systems were created. In addition to these modular power plant investments, custom solutions are also offered to address specific customer needs. The Company started to offer solutions in EPC/EPC-F/BOT/IPP business models to customers in potential countries, the African market in particular, through affordable financial solutions.

PROJECTS DEVELOPED

Adacami HPP

Project Start Date: 2012
Project Delivery Date: 02.08.2013 (Unit 1 commissioning date), December 16, 2013 (Unit 2 commissioning date)
Installed Capacity: 2 x (14,951 MWm /14,652 MWe)

Demircili WPP

Project Start Date: September 2015
Project Commissioning Date: September 2016
Installed Capacity: 40 MW

Sarpıncık WPP

Project Start Date: November 2015
Project Commissioning Date: 10 turbines were commissioned in 2016. The last turbine was commissioned in 2019.
Installed Capacity: 32 MWe/32.5 MWm

Polatlı SPP

Project Start Date: 01.03.2016
Project Commissioning Date: 29.06.2016
Installed Capacity: 1.07 MWp/0.93 MWe
Annual Energy Consumption: 1,671 MWh

Erzincan SPP

Project Start Date: 08.06.2017
Project Commissioning Date: 13.11.2017
Installed Capacity: 5.189 MWp/4.84 MWe
Annual Energy Consumption: 8,583 MWh

Erzurum SPP

Project Start Date: 08.06.2017
Project Commissioning Date: 20.12.2017
Installed Capacity: 5.096 MWp/4.79 MWe
Annual Energy Consumption: 8,514 MWh

Amasya SPP

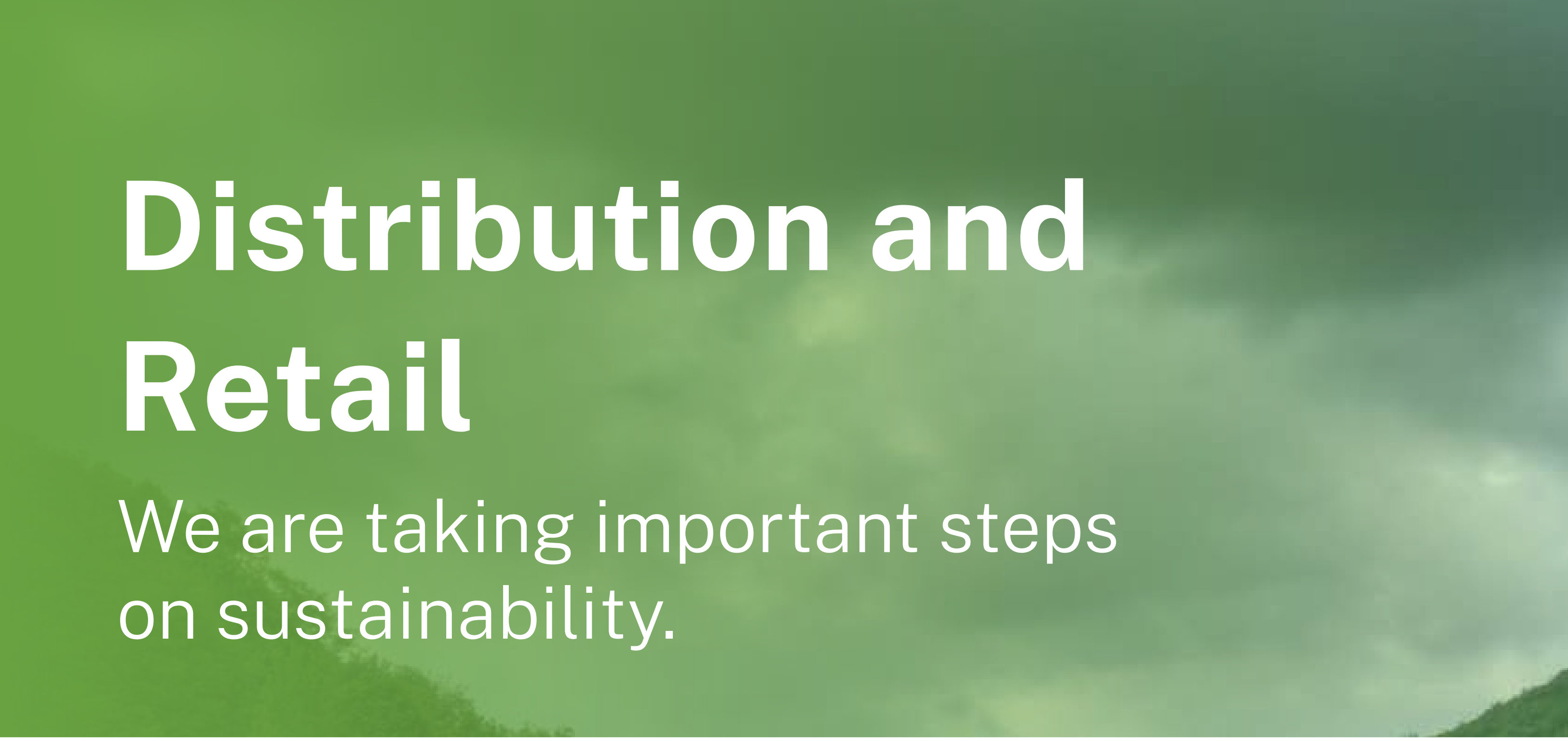
Project Start Date: 15.08.2017
Project Commissioning Date: 23.02.2018
Installed Capacity: 5.35 MWp/5.00 MWe
Annual Energy Consumption: 7,412 MWh

Amasya Çaydibi and Doğu SPP

Project Start Date: 26.08.2019
Project Commissioning Date: 11.12.2019
Installed Capacity: 5.94 MWp/5.00 MWe
Annual Energy Consumption: 8,222 MWh

Çorum SPP

Project Start Date: 01.08.2017
Project Commissioning Date: 07.02.2018
Installed Capacity: 10.32 MWp/9.19 MWe
Annual Energy Consumption: 15,852 MWh



Distribution and Retail

We are taking important steps on sustainability.

As Yeşilırmak Elektrik Dağıtım A.Ş., we are proud to be a leading firm in electric distribution sector by commissioning the first battery energy storage facility of Turkey in the field of “Energy Storage Systems,” which is becoming more and more important in the world. We will maintain our leader position in energy distribution by taking innovative steps.

Buse Meriç
Accounting Junior Associate

YEDAŞ TOTAL INVESTMENT AMOUNT

1.4
TL billion

Distribution and Retail

With the deep-rooted experience and know-how of Çalık Group, Çalık Enerji provides uninterrupted energy service with YEDAŞ, YEPAŞ, KEDS and Aras EDAŞ in the field of electricity distribution and retail; and with Bursagaz and Kayserigaz in natural gas distribution, where customer satisfaction is of a great importance.

YEŞİLIRMAK ELEKTRİK DAĞITIM A.Ş. (YEDAŞ)

3 MILLION+

Population Served

Carrying out activities in Samsun, Amasya, Çorum, Ordu and Sinop; YEDAŞ aims to be the "best" of its sector.

YEŞİLIRMAK ELEKTRİK PERAKENDE SATIŞ A.Ş. (YEPAŞ)

2.1 MILLION

Subscribers

Providing high-quality, reliable, uninterrupted and affordable energy to its customers, YEPAŞ provides retail sales and services in Samsun, Ordu, Çorum, Amasya and Sinop.

BURSA ŞEHİRİÇİ DOĞALGAZ DAĞITIM TİCARET VE TAAHHÜT A.Ş. (BURSAGAZ)

2.8 BILLION m^3

Volume of Natural Gas Distributed in 2019

As Turkey's third largest natural gas distribution company, Bursagaz joined Çalık Enerji in 2004 with a privatization tender.

KOSOVO ÇALIK LİMAK ENERGY SH.A. (KEDS)

5.32 GWh

2019 Total Electric Distribution

KEDS is the only company in Kosovo carrying out activities as a distributor and public energy supplier and provides 100% of the net electric consumption of the country.

ARAS ELEKTRİK DAĞITIM A.Ş. (ARAS EDAŞ)

2.2 MILLION

Population Served

Aiming to ensure sustainable customer satisfaction, Aras EDAŞ provides electricity distribution services in the region that includes Ağrı, Ardahan, Bayburt, Erzincan, Iğdır and Kars.

KAYSERİGAZ KAYSERİ DOĞALGAZ DAĞITIM PAZARLAMA VE TİCARET A.Ş (KAYSERİGAZ)

684 MILLION m^3

Volume of Natural Gas Distributed in 2019

Providing the safe and uninterrupted service the city needs, Kayserigaz has been supplying natural gas to almost all of the developed lands since 2013.

yedaş Yeşilırmak Elektrik Dağıtım A.Ş.

YEŞİLIRMAK ELEKTRİK DAĞITIM A.Ş.

YEDAŞ meets the electric power need of more than 3 million people living in Samsun, Amasya, Çorum, Ordu and Sinop in a consistent and uninterrupted manner by providing “superior customer/stakeholder satisfaction.”

DATE OF ESTABLISHMENT

2005

NUMBER OF EMPLOYEES

580
YEDAŞ

1,498
Subcontractors

SHAREHOLDING STRUCTURE

Çalık Elektrik Dağıtım A.Ş
99.99%

Other
0.01%

www.yesilirmakedas.com

About Yeşilırmak Elektrik Dağıtım A.Ş. (YEDAŞ)

YEDAŞ meets the electric power need of more than 3 million people living in Samsun, Amasya, Çorum, Ordu and Sinop in a consistent and uninterrupted manner by providing “superior customer/stakeholder satisfaction.”

YEDAŞ is a responsible and strong family with its senior management, employees and all stakeholders, especially its customers. Following innovative technology closely and applying it in all business processes, YEDAŞ uses all its means, effort and energy with the excitement of being the “best” in its sector, and takes firm steps towards its goal of becoming the leading brand of the electricity distribution sector in Europe.

YEDAŞ aims to provide reliable, consistent service; achieve customer satisfaction; create value through social contributions; and become a pioneer in its operating region. Occupational health and safety, use of technology and innovative solutions are among the priorities of YEDAŞ.

In line with its strategic priorities and objectives, YEDAŞ continues to invest in digitalization. The company aims to provide high-quality and uninterrupted electric service by establishing remote monitoring and control systems such as SCADA, AGIS (Low Voltage Grid Monitoring System), and Mobile Workforce Management System. YEDAŞ constantly improves its supply continuity and service quality by analyzing and correlating existing data and data collected in the field as part of its “Big Data” project.

YEDAŞ renewed and consolidated its distribution network and technological infrastructure by investing approximately TL 1,397 billion between 2011 and 2019. Company continues to serve in a 39,367 km^2 field in Samsun, Ordu, Çorum, Amasya and Sinop as of the year-end 2019.

YEDAŞ operates in the provinces and districts of Samsun, Ordu, Çorum, Amasya and Sinop, where it distributes some 5.2 million kWh of electricity to over 3 million subscribers. YEDAŞ operates with a staff of 1,286. YEDAŞ is among a handful of electricity distribution companies that boasts its own in-house software team.

Competitive Advantages

- Having a strong financial structure and high credibility
- Effective and new ideas and a corporate structure that is open for development
- A human resource with high potential that has a good knowledge of legislation with its sector experience
- Being the distribution company with the highest advantage in the sector in terms of data pool (SAP, EDAŞ Online, AGIS, OSOS, SCADA, GIS) and having a technological infrastructure with advanced grid monitoring and control systems (AGIS-SCADA-OSOS)
- Digitalization in customer processes (Digital management of EDAŞ Online connection requests)
- Success in stakeholder relations,
- Speed of intervention in natural disasters
- Fast adaptation to the legislative and regulative changes

Distribution and Retail

YEŞİLIRMAK ELEKTRİK DAĞITIM A.Ş. (YEDAŞ)

YEDAŞ is proud to be a leading firm in electric distribution sector by commissioning the first battery energy storage facility of Turkey in the field of "Energy Storage Systems," which is becoming more and more important in the world.

DATE OF ESTABLISHMENT

1.4
TL billion

YEDAŞ renewed and consolidated its distribution network and technological infrastructure by investing approximately TL 1.4 billion between 2011 and 2019.

ELECTRICITY DISTRIBUTED

5.2
billion kWh

YEDAŞ realizes approximately 5.2 billion kWh electricity distribution.

TOTAL SUBSCRIBERS

3
million+

YEDAŞ operates in the provinces and districts of Samsun, Ordu, Çorum, Amasya and Sinop, where it distributes electricity to 2.1 million customers and over 3 million subscribers.

- The company's SCADA/DMS system, which enables quick intervention in case of failures
- World-class service quality
- High customer satisfaction thanks to its modern systems
- Development of R&D projects supported by EMRA

Quality Standards and Certifications

- ISO 9001:2015 Quality Management System
- ISO 10002:2006 Customer Satisfaction Management System
- ISO 14001:2015 Environmental Management System
- OHSAS 18001:2007 Occupational Health and Safety Management System
- ISO 18295-1:2017 Customer Contact Center Management System
- ISO 27001:2013 Information Security Management System

"Firsts" and "Major Achievements" in the Sector

- The leading electricity distribution company to use the SAP system in the most effective and comprehensive manner
- The first Turkish electricity distribution company to implement the Digital Network Model-Sustainable Investment Period project
- A company that is managed with GIS Based SAP (ERP) - IS-U
- The distribution company that established the Low Voltage Network Monitoring System and is able to monitor and manage the low voltage network remotely
- The first company in Turkey to commission a battery energy storage facility
- The company that shortens the failure repair times by instantly monitoring phase interruptions at the low voltage outputs via AGİS system
- The company that has implemented the EDAŞ Online application which carries the new connection processes to digital environment and ensures fast and easy tracking of transactions.

2019 Highlights

YEDAŞ is proud to be a leading firm in electric distribution sector by commissioning the first battery energy storage facility of Turkey in the field of "Energy Storage Systems," which is becoming more and more important in the world.

Inspired from the zero waste project initiated by the Ministry of Environment and Urbanization, the Company started using glass jugs and cups rather than plastic cups in 2019 and aims to eliminate its negative impact towards the environment by providing an average of 5 tons of recycling within three years.

YEDAŞ places great importance on effective use of new technologies in parallel with the developments in the digital world. Accordingly in 2018, the Company established "EDAŞ Online Portal" in order for consumers to submit connection applications on the website. The Company also completed SCADA, GIS, and SAP integration of WFM Mobile GIS - the third phase of the "Mobile Workforce Management Project" launched to help field teams instantly diagnose the grid status on tablets and quickly respond to any

issues - and hence carried digitalization to the processes out on the field. As part of the AGIS Project, YEDAŞ is able to remotely monitor over 12 thousand transformers and 120 thousand points on around 40 thousand low voltage feeders in its distribution network.

Use of Drones started in 2018 as a first practice to help determine failures on long lines within the field, make detailed field diagnostics, conduct more effective maintenance and investment activities, and effectively scan illegal use across the distribution grid.

The project initiated in 2018 for the installation of line insulation and bird protection apparatus on electricity distribution lines located on the migration routes of approximately 1 million birds with a budget of TL 625 thousand in order to prevent birds to receive electric shock continued in 2019 as well.

The Company strives to raise employees' awareness for occupational health and ensure that compliance with safety rules is adopted as a life style. "Onboarding talks" are organized so as to help new recruits remember and observe the rules. Occupational health and safety teams based in all cities conduct on-site inspections and provide necessary information. Directors visit on-site teams while in action and make evaluations regarding the improvement and implementation of safety measures. Informative messages on such rules are sent during the day. Teams who comply with occupational health and safety rules are rewarded and selected as the "Golden Team of the Month."

In order to create a safe and healthy working environment, YEDAŞ makes occupational health and safety investments while its awareness-raising practices ensures continuity and the adoption of safety culture as a lifestyle.

The project initiated in 2018 for the installation of line insulation and bird protection apparatus on electricity distribution lines located on the migration routes of approximately 1 million birds with a budget of TL 625 thousand in order to prevent birds to receive electric shock continued in 2019 as well.

Distribution and Retail

YEŞİLIRMAK ELEKTRİK DAĞITIM A.Ş. (YEDAŞ)

YEDAŞ was awarded the "Best Technologic Investment Award in the field of Sustainable Electricity Distribution" in the competition organized in November 2019 by International Business Magazine.

Throughout 2019; TL 138 million spent on investment including TL 110.5 million network investment, TL 1,045 million R&D investment expenses, TL 10.7 million network operating system investment, TL 4.7 million meter investment and TL 11.6 million for environment, security and other investment areas.

Investments in 2019

Throughout 2019; TL 138 million spent on investment including TL 110.5 million network investment, TL 1,045 million R&D investment expenses, TL 10.7 million network operating system investment, TL 4.7 million meter investment and TL 11.6 million for environment, security and other investment areas. In this direction; 46 transformers, a 19 km energy transmission line, 647 rural/village grids, a 91 km underground grid, a 34 km stand-alone illumination, and 21 distribution centers/breaker measuring cubicles were procured.

By creating the model of the company's current network and determining the load increases with the expansion zones and demand estimation as a result of field applications, 2021-2025 and 2026-2030 master plan and project works is conducted. The realization period for the project commenced in October 2019 is 1 year. As a result of this activity, by clarifying the investment needs for the fourth implementation period (2021-2025), a basis to the investment tariff demand will be formed.

Awards in 2019

With the digital developments it has achieved, YEDAŞ was awarded the "Best Technologic Investment Award in the field of Sustainable Electricity Distribution" in the competition organized in November 2019 by International Business Magazine, where world-famous companies have participated.

Financial Summary (TL Million)	2017	2018	2019
Total Assets	1,512	2,059	2,112
Net Sales	828	1,032	1,032
Total Equity	770	978	1,096
EBITDA	549	755	691
EBITDA Margin (%)	66	73	67

Distribution and Retail

YEŞİLIRMAK ELEKTRİK PERAKENDE SATIŞ A.Ş.

YEPAŞ supplies electricity to a broad customer base including industrial facilities and individual households across Turkey in Samsun, Ordu, Çorum, Amasya and Sinop.

DATE OF ESTABLISHMENT

2012

NUMBER OF EMPLOYEES

220

SHAREHOLDING STRUCTURE

Çalık Elektrik Dağıtım A.Ş

99.99%

Other

0.01%

www.yepas.com

About Yeşilırmak Elektrik Perakende Satış A.Ş. (YEPAŞ)

Yeşilırmak Elektrik Perakende Satış A.Ş. (YEPAŞ) was established and registered with Samsun Trade Registry Office on November 16, 2012. On December 27, 2012, YEDAŞ obtained a Retail Sales License (numbered EPS/4207-2/2498) as per EMRA (Energy Market Regulatory Authority) Resolution No: 4207-2. The partial separation of retail sales operations within the framework of the Procedures and Principles Regarding the Legal Separation of Distribution and Retail Sales Operations was registered on December 31, 2012. Subsequently on January 1, 2013, YEDAŞ began its retail sales and service operations in Samsun, Ordu, Çorum, Amasya and Sinop (Yeşilırmak Distribution Region).

YEPAŞ supplies electricity to a broad customer base including industrial facilities and individual households across Turkey. As a last source supplier, the company is authorized to sell electric power to consumers at the rate determined for the service area of Yeşilırmak Elektrik Dağıtım A.Ş. ("YEDAŞ"); to eligible consumers who choose not to take advantage of this right; and to eligible consumers at the retail tariff determined by the Energy Market Regulatory Authority (EPDK). YEPAŞ sells electric power to eligible consumers in the region at market-based rates under bilateral contracts. Additionally, YEPAŞ, in keeping with its last source supplier status, undertakes marketing, sales, and customer services activities (e.g. subscriptions, billing, collections).

In addition to those services for eligible consumers within the deregulated electricity market, the Company creates solutions for customers, who either do not hold or use their eligible consumer status, as a provider authorized by the Electricity Market Legislation. Continuous improvements are made so as to issue customers' electricity bills correctly and timely, provide them with quick access to their bills, and enable fast, commission-free collections through alternative channels.

YEPAŞ provides customers with high quality, reliable, uninterrupted and reasonably-priced electricity, which is essential to daily life. Building customer satisfaction into its business processes, YEPAŞ successfully continued to deliver fast and courteous customer service in 2019. YEPAŞ always aims to deliver innovative, customer-focused services. Thanks to its advanced technology infrastructure, the company develops products, services and solutions that meet customers' needs. As a result of technology investments, YEPAŞ today boasts the most advanced IT systems and equipment in the electricity retailing industry. Even though price may seem the most important factor in electricity supply, the supplier's market experience, know-how, and service quality before and after sales are also very important. To that end, YEPAŞ offers its customers the right products and services to meet their needs after carefully analyzing and understanding the market conditions.

TOTAL NUMBER OF SUBSCRIBERS

2,127,048

Yeşilırmak Elektrik Perakende A.Ş. provides services to 2,127,048 subscribers by the end of 2019.

TOTAL ENERGY CONSUMPTION

4,394

GWh

As of the end of 2019, a total of 4,394 GWh of electric were consumed in YEPAŞ area.

When selling electric power to industrial facilities and businesses that have eligible consumer status, YEPAŞ develops effective solutions and services by taking market dynamics into account and closely monitoring customers' needs. Focusing on customer satisfaction as much as it does on pricing, the Company supports customers in their areas of activity.

Competitive Advantages

- Advanced IT systems and infrastructure
- High customer satisfaction thanks to its modern systems
- Places great importance on technology investments
- World-class service quality
- Providing effective solutions and leading the service industry

Quality Standards and Certifications

- ISO 9001:2015 Quality Management System
- ISO/IEC 27001:2013 Information Security Management System
- ISO 10002:2014 Customer Satisfaction Management System

2019 Highlights

YEPAŞ responded to the developments that effected the sector in 2019 quickly, through taking necessary measures and leveraging this period - which it called a transition period - as an opportunity to prepare the company for the future. YEPAŞ followed its vision to shift from a regional to a national electricity sales company, and hence made improvements in its IT infrastructure, customer services centers and collection channels.

In 2018, YEPAŞ managed costs effectively and improved solutions and business models continuously to achieve efficiency. Having succeeded in exporting electricity for the first time in this accounting period, the Company closely monitors the regional electricity markets and business opportunities thanks to its team of experts.

Distribution and Retail

YEŞİLIRMAK ELEKTRİK PERAKENDE SATIŞ A.Ş. (YEPAŞ)

The Company also aims to further improve the Customer Loyalty Program and hence partnered with a lot of local and national brands to provide YEPAŞ customers with a host of advantages.

YEPAŞ also partnered with the subsidiaries of Çalık Holding to make the most of the synergy in the Group. As part of the project co-run with Aktif Bank N Kolay, all YEPAŞ transaction centers within the region were transformed into YEPAŞ N Kolay Authorized Transaction Centers.

YEPAŞ also partnered with the subsidiaries of Çalık Holding to make the most of the synergy in the Group. As part of the project co-run with Aktif Bank N Kolay, all YEPAŞ transaction centers within the region were transformed into YEPAŞ N Kolay Authorized Transaction Centers so as to establish more accessible and efficient service channels. YEPAŞ N Kolay Authorized Transaction Centers have thus turned into platforms where electricity subscription transactions, collections, eligible consumer transactions and all other customer services are available alongside conventional N Kolay services. As an outcome of this partnership, 69 YEPAŞ N Kolay Authorized Transaction Centers and some 686 N Kolay Kiosks offer services to customers in the central cities and districts of Samsun, Sinop, Ordu, Çorum and Amasya.

In the meanwhile, YEPAŞ focused on the sales of non-electricity products and services in 2019 with YEPAŞ Service Centers. In partnership with some of the Group's subsidiaries - N Kolay, Sigortayeri and ÇEDAŞ - YEPAŞ started to provide customers with intermediation for the sales of TCIP insurance, which is mandatory for contract procedures. Important progress was made in the Project which was launched with pilot practices and a significant number of policies was sold.

YEPAŞ also determined that various products and/or services could be successfully sold through the same channel once the amendments to current laws, which are inevitable and should be developed by the sector's regulator EMRA in the light of the changing market conditions, are completed.

The Company also aims to further improve the Customer Loyalty Program "YEPAŞ World of Advantages" launched in 2019, and hence partnered with a lot of local and national brands to provide YEPAŞ customers with a host of advantages.

Financial Summary (TL Million)	2017	2018	2019
Total Assets	503	603	534
Net Sales	1,063	1,362	1,632
Total Equity	56	37	126
EBITDA	25	-6	94
EBITDA Margin (%)	2.4	-0.4	5.7


ÇALIK ENERJI

Distribution and Retail

KEDS **KOSOVO ÇALIK LİMAK ENERGY SH.A.**

Acquired by Çalık Holding and Limak Holding via tender in 2012, Kosovo Çalık Limak Energy Sh.A. provides electricity distribution and retail services in Kosovo-the youngest country in Europe-with 2,200 employees.

DATE OF ESTABLISHMENT

2012

NUMBER OF EMPLOYEES

220

SHAREHOLDING STRUCTURE

Çalık Enerji Sanayi ve Ticaret A.Ş.

50%

Limak Yatırım Enerji Üretim İşletme Hizmetleri ve İnşaat A.Ş.

50%

www.keds-energy.com
www.kesco-energy.com

About Kosovo Çalık Limak Energy Sh.A. (KEDS)

Acquired by Çalık Holding and Limak Holding via tender in 2012, Kosovo Çalık Limak Energy Sh.A. provides electricity distribution and retail services in Kosovo-the youngest country in Europe- with 2,200 employees. The company owns Kosovo Electricity Distribution Company J.S.C. (KEDS), the only authorized electricity distributor in Kosovo, and Kosovo Electricity Supply Company J.S.C. (KESCo), the only authorized energy supplier to the public sector. The company meets 100% of Kosovo's net demand for electricity.

The company has made significant advances towards achieving its goals by capitalizing on the experience of Çalık and Limak Groups in the power industry. KEDS regularly adopts innovations under its "Ten-Year Distribution System Operator Network Development Plan" (2014-2023). The company designed the plan to provide reliable electric service with low prices and is implementing it step-by-step, In addition to reliable working systems and coordinated customer tracking. All these advantages and distinctive features enable the company to steadily expand its subscriber base.

Being in the sector since 2013, KEDS has successfully reduced technical and commercial losses; improved its access to energy significantly by restructuring its energy transfer operations; boosted operational efficiency through the use of new technologies and implementation of effective measures; and has taken important steps to provide education and employment opportunities to young people in line with its social responsibility principles.

KEDS aims to provide high-standard electric services to all its subscribers and to eliminate all the infrastructure issues regarding electric energy.

Successfully completing the separate pricing process, which is a legal obligation at the end of 2014, KEDS transferred the electricity supply activity to the public to KESCO, which was established under Çalık Limak Group in 2015. After the license is transferred to KESCO, around 250 employees moved from KEDS to KESCO.

Competitive Advantages

- Sole supplier in the market
- Positioned as a regional player
- Has the manpower, technical knowledge, experience and competency to determine and assume the projects to satisfy the needs,
- Independent decision making.

KEDS's Electricity Distribution and Retail Strategy

In order to reach international standards in SAIDI (System Average Interruption Duration Index) and SAIFI (System Average Interruption Frequency Index) values to provide sufficient and low-cost electricity services to its subscribers with business processes that prioritize high efficiency, and to improve supply security, the company aims to continue its planned maintenance and network renewal investments.

NUMBER OF SUBSCRIBERS

605

thousand

KEDS increased the number of subscribers from 470 thousand in 2013 to 605 thousand as of the end of 2019.

TOTAL ASSETS

1.36

TL billion

(EUR 204 million)*

KEDS' total assets rose to TL 1.36 billion in 2019.

** EUR/TL FX buying rate for the end of the period is considered as 6.6506 in the calculation.*

2019 Highlights

The Company increased the number of subscribers from 470 thousand in 2013 to 605,694 thousand as of the end of 2019. This achievement was thanks to the fact that Kosovo has a young population and that the Company has carried out an ambitious investment drive since privatization. Distributing 5.32 GWh of electricity in Kosovo in 2019, KEDS has made an investment of approximately EUR 22.1 million throughout the year, most of which is used for network infrastructure renewal and modernization activities.

The company upgraded its call center to operate around the clock in order to respond to customer queries and resolve their issues. KESCo managed to provide electricity to its customers at low prices even when there was no electricity generation in the country. All electricity consumers in Kosovo are customers of KESCo.

KEDS has invested approximately EUR 146 million from May 2013 to the end of 2019 in order to reduce technical and commercial losses. Restructuring its energy distribution activities, KEDS significantly increased access to energy and service quality throughout the country. While KESCo assumes the responsibility to supply this distributed energy from local sources and through imports, the Company works with more than 40 commercial parties in terms of access to day-ahead/intraday markets and energy trade in over-the-counter markets for customer portfolios within the scope of national tariff and eligible consumer status.

Continued to increase its operational efficiency through the use of new technologies and implementation of effective measures, the Company has shown a performance above its efficiency targets.

Distribution and Retail

KOSOVO ÇALIK LİMAK ENERGY SH.A. (KEDS)

KEDS Academy, a social responsibility initiative aiming to provide young people around the world with access to higher education and employment opportunities, pioneers other organizations in similar social responsibility projects. The 6th generation of the training courses under KEDS Academy have been successfully completed.

TOTAL INVESTMENTS

22.1

EUR million

In 2019, KEDS invested about EUR 22.1 million primarily to upgrade its grid infrastructure and step up modernization efforts.

NET SALES

1.61

TL billion

(EUR 253.8 million)*

Çalık Enerji generated TL 1.61 billion net sales in 2019.

Placing importance to digitalization since the day it was established, the Company included 9.61% of all customers to smart grid system as of the end of 2019. It also plans to complete the integration of SCADA systems by the end of 2020. As energy losses, one of the most important issues of the region, were at 31% in 2013, as a result of the investments and successful operations, this ratio was reduced to 20.36% by the end of 2019.

KEDS Academy, a social responsibility initiative aiming to provide young people around the world with access to higher education and employment opportunities, pioneers other organizations in similar social responsibility projects. The 6th generation of the training courses under KEDS Academy have been successfully completed.

Completing medium and long term investment plans in a way to maximize the total benefit of all its stakeholders in Kosovo, the Company was awarded the “Taxpayer of 2019” by the Kosovo Chamber of Commerce in 2019. Additionally, the Company was entitled to receive the license given by the Ministry of Labor and Social Policies with its occupational health and safety applications.

Investments in 2019

- Distribution line transformation investments in 20 KV level
- Network support investments
- Meter investments
- Smart network investments
- Building, storage etc. renewal and renovation investments
- IT investments
- Special field operation equipment investment
- Regional investments

Financial Summary (TL Million)	2017	2018	2019*
Total Assets	864	1,159	1,358
Net Sales	1,296	1,579	1,610
Total Equity	645	922	1,023
EBITDA	146	270	198
EBITDA Margin (%)	11	17	12

**EUR/TL FX buying rate for the end of the period is considered as 6.6506 in while average EUR/TL FX buying rate was considered as 6.3481 the calculation.*

** Average EUR/TL FX buying rate is considered as 6.3481 in the calculation.*

Distribution and Retail

ARAS ELEKTRİK DAĞITIM A.Ş. (ARAS EDAŞ)

Providing distribution services in seven provinces including Ağrı, Ardahan, Bayburt, Erzincan, Iğdır, Kars and its headquarters Erzurum, Aras EDAŞ provides services to 2.2 million citizens.

DATE OF ESTABLISHMENT

2006

NUMBER OF EMPLOYEES

500
Persons

2,016
İncluding Subcontractors

DATE OF PRIVATIZATION

2013

SHAREHOLDING STRUCTURE

100%

Doğu Aras Enerji Yatırımları A.Ş
100%

www.arasedas.com

Vision
To maintain steady growth in relation to Distribution companies in Europe and to achieve lasting success driven by a customer-focused strategy.

Mission
To maintain a high level of customer satisfaction by offering environmentally friendly, innovative, uninterrupted, high-quality service through effective use of our energy.

Aras EDAŞ's Operating Region
Providing electric distribution services in seven provinces including Ağrı, Ardahan, Bayburt, Erzincan, Iğdır, Kars and its headquarters Erzurum, Aras EDAŞ provides services to 2.2 million persons. The Company has 1,029,869 subscribers as of the end of 2019.

Quality Certificates
- ISO 9001 Quality Management System
- ISO 10002 Customer Satisfaction and Complaints Handling
- ISO 14001 Environmental Management System
- ISO 27001 Information Security Management System
- ISO 45001 Occupational Health and Safety Management System
- ISO 50001 Energy Management System

Competitive Advantages of Aras EDAŞ
- Geo-strategic significance of its operating region
- Largest company in the eastern Anatolia region
- Location in a region included in the incentive program

"Firsts" and "Major Achievements" in the Sector
- The first electricity distribution company in Turkey to has "Training and Collaboration Protocol" with the universities in the city.
- It is the first company to receive the ISO 50001 Energy Management System standard.
- The new communication platform of Aras Elektrik Dağıtım Anonim Şirketi, ARIMER is the "Manager Communication Line" that brings the managers and customers together on a single platform. Customer is able to communicate each request to the manager through ARIMER directly.

Goals
- To become a leading, universal brand in the electricity distribution sector
- To maintain steady growth in relation to distribution companies in Europe and to achieve lasting success driven by a customer-focused strategy
- To build a world-class technology infrastructure
- To archive the zero-accident goal

Aras EDAŞ Employee Profile
Aras EDAŞ has a total of 2 thousand employees-including solution partners.

Aras EDAŞ's Investments
Following its privatization in July 2013; Aras EDAŞ invested a total of TL 1,150 billion in 7 years, including the TL 152.9 million in 2019. It is expected to spend TL 175 million on investment as of the end of 2020. The priorities of the company in its investments is to improve the network, technologic infrastructure, to provide high-quality and uninterrupted energy distribution and to create customer satisfaction.

NUMBER OF PERSONS SERVED

2.2

million

The company provides electric service to 2.2 million residents in Erzurum, Ağrı, Ardahan, Bayburt, Erzincan, Iğdır and Kars-a total of seven provinces.

NUMBER OF SUBSCRIBERS

1,029,869

As of the end of 2019, Aras EDAŞ has a total of 1,029,869 subscribers.

TOTAL INVESTMENT AMOUNT

1,150

TL billion

Aras EDAŞ spent TL 1,150 billion on investment since July 2013 when it was privatized.

Demographic Profile of Aras EDAŞ's Operating Region

Aras EDAŞ's operating region covers seven cities in the Eastern Anatolia region; the majority of the rural population in Turkey-about 2.8% of the country's entire population-lives in this region. While 70% of the region's residents live in cities, 30% of the company's customers live in rural areas.

2019 Highlights

In 2019, Aras EDAŞ established the Workforce Management System that is able to measure and report all kinds of activities of the field repair teams comprising of 757 employees working in 7 provinces and 58 districts. With these measurements and reports, the work quality, efficiency and customer satisfaction of employees increase and the time it takes for teams to intervene a failure is also shortened with this system.

Thanks to SCADA systems, Aras EDAŞ monitors 1,124 centers in the distribution network and approximately 5 thousand MV feeders receiving electricity from these centers remotely. Therefore customers are informed of failures and improvements are realized in terms of failure durations and frequencies.

Aras EDAŞ aims to rapidly reduce and eliminate illegal electricity usage in the region with the PLC Meter System Project, which means communication infrastructure over electricity grids. With the system implemented in Ağrı Doğubayazıt and Patnos districts, there has been an increase in energy efficiency in addition to the significant decrease in the loss and illegal use rates of these districts.

The company added 7 more vehicles to its cable testing vehicle fleet in 2019 and ensured that faults occurring in underground cables are detected point-by-point and intervened immediately.

Holding a Company Managers Meeting, Aras EDAŞ has chosen 2019 as the "Year of Quality and Productivity"

The Company implemented the applications, products and collaborations below;

- Cooperation with Erzurum Metropolitan Municipality,
- Failure Management Mobile App,
- Development of SCADA system,
- Commissioning of ARIMER,
- Commissioning of the digital archive.

Investments in 2020

Aras EDAŞ will continue to undertake upgrading, maintenance, improvement, and expansion efforts in the LV & HV (MV) power distribution systems in its operating region-covering the provinces of Ağrı, Ardahan, Bayburt, Erzincan, Erzurum, Iğdır and Kars-to ensure technical quality and continued power. Furthermore, the Company plans to increase its R&D investments in the coming period.

Awards in 2019

Aras EDAŞ was awarded the "R&D Success Award" given by EMRA with its Smart Distribution Transformer Project in 2019.

Financial Summary (TL Million)	2017	2018	2019*
Total Assets	1,022	1,150	1,286
Net Sales	621	726	1,055
Total Equity	399	491	791
EBITDA	220	252	420
EBITDA Margin (%)	35	35	40

Distribution and Retail

BURSAGAZ

BURSA ŞEHİRİÇİ DOĞALGAZ DAĞITIM TİCARET VE TAAHHÜT A.Ş.

Bursagaz, Turkey's third largest natural gas distribution company, is propelled by over 1 million subscribers and a technology-centered management approach in launching exemplary practices in Turkey.

DATE OF ESTABLISHMENT

1992

NUMBER OF EMPLOYEES

265

SHAREHOLDING STRUCTURE

SOCAR Turkey

80%

Çalık Enerji

10%

Bursa Metropolitan Municipality

10%

www.bursagaz.com

About Bursagaz

Established by BOTAŞ in 1992 to sell natural gas, Bursagaz was acquired by Çalık Enerji in 2004 through a privatization tender. Çalık Enerji sold its majority stake at Bursagaz in 2008. Bursagaz, whose majority shares were acquired by SOCAR Turkey Enerji A.Ş., has more than 1 million subscribers and implements exemplary practices in the country with its technology-oriented management approach as the country's third largest natural gas distribution company. As the pioneer of firsts, Bursagaz was chosen as the best employer of Turkey in 2014 within the scope of Great Place to Work - Best Employers of Turkey.

Crowning its successful strategic management with the award "Hall of Fame for Executing Strategy" in 2015, Bursagaz diversifies its efforts on a daily basis in this field. The company has integrated technological developments into its strategic goals, which it associates with sustainable development, while controlling the grid and managing distribution lines effectively through SCADA, Yol-Bil and CBS systems.

With the Call Center equipped with modern technology, which provides services since 2013, more than 40 Customer Representatives, who are experts in their areas, produce solutions for all kinds of requests, suggestions and complaints of Bursa citizens 24/7 with the Office-Free Service Project, a first in the sector with an innovative approach to customer care.

Expanding its license coverage every year and attaining 90% in customer satisfaction rates, the Company has increased the grid length to 6,651 km and expanded the distributed gas volume to 2.28 billion m^3 as of the end of 2019. In addition to European Quality Award granted by EFQM in 2008, Bursagaz was also deemed worthy of Platinum LEED (Leadership in Energy and Environmental Design) Certification, the highest existing level, with its environmentally sensitive Head Office building. As part of its vision "to become a world-class company," Bursagaz executes corporate strategies in parallel with international standards, which are already incorporated in its current management systems. Along with its operational activities, Bursagaz implements corporate social responsibility projects in education, culture and sports to help support social development.

Bursagaz's Distribution Network

1. Osmangazi
2. Yıldırım
3. Nilüfer
4. Mudanya
5. Kestel
6. Gürsu
7. İznik
8. Keles
9. Harmancık
10. Orhaneli
11. Büyükorhan

Bursagaz has put into use Polaris, the new measurement software system, which was applied for the first time in Turkey. With Polaris Remote Meter Reading and Measurement Management System Project, it was ensured that 600 schools under the Ministry of Education were managed by connecting their natural gas meters to the system.

Bursagaz's Competitive Advantages

- It has strong systems in place for an effective grid management including but not limited to SCADA, GIS, Earthquake Risk Management System, SPRING etc.
- Boasting a robust financial structure, it is a company that adds value to economy.
- Bursagaz, the pioneer of the sector with R&D projects developed through an innovative approach, has obtained EMRA's approval for 9 of its R&D projects up to date.
- It boasts a positive brand perception at local and national scale.
- Despite serving in a monopole market, it has adopted a private sector approach that is aligned with a competitive market (subscription services, call center, solution points, online services etc.).

Quality Standards and Certifications

- ISO 9001 Quality Management System
- ISO 14001 Environmental Management System
- OHSAS 18001 Occupational Health and Safety Management System
- ISO 10002 Customer Satisfaction and Complaints Management System
- ISO 27001 Information Security Management System
- ISO 50001 Energy Management System
- ISO 22301 Societal Safety and Business Continuity Management System

2019 Highlights

Reaching 1 million subscribers in March 2019, Bursagaz's majority shares were transferred to SOCAR Turkey on June 16, 2019.

Carrying out innovative and leading works in the previous year, the Company put into use the Visual Training Center, which is a first in the sector. Additionally, in order to provide more comprehensive services to its employees, it has launched four services in e-Government.

Also during the period; Bursagaz has put into use Polaris, the new measurement software system, which was applied for the first time in Turkey. With Polaris Remote Meter Reading and Measurement Management System Project, named after the Polar Star, it was ensured that 600 schools under the Ministry of Education were managed by connecting their natural gas meters to the system.

In addition to raising awareness of citizens about natural gas, which is a quality, safe and clean energy source with the campaigns it organized in 2019, Bursagaz targeted new customer acquisition and made significant gains.

1 Millionth Subscriber Campaign

With the motto "Almost 1 Million," Bursagaz announced that electric scooters will be given to five persons among Bursagaz those subscribing for the first time between October 1 and December 31, 2018. The winners of the campaign, whose primary and reserve winners were determined with the drawing held in Bursagaz Head Office building on January 7, 2019 received their presents with the ceremony organized. In the ceremony, the 1 millionth subscriber also awarded 400 m³ of natural gas.

In addition to raising awareness of citizens about natural gas, which is a quality, safe and clean energy source with the campaigns it organized in 2019, Bursagaz targeted new customer acquisition and made significant gains.

Distribution and Retail

BURSA ŞEHİRİÇİ DOĞALGAZ DAĞITIM TİCARET VE TAAHHÜT A.Ş. (BURSAGAZ)

The Pipeline Integrity Project (SPRING) developed by Bursagaz, which is a first in the natural gas distribution sector was awarded the "R&D Achievement Award" in the 4th R&D in Energy Workshop held by EMRA, ELDER and GAZBIR.

SUPPORT TO THE PROJECT FOR IMPROVING THE AIR QUALITY OF BURSA

1.5

TL million

2019 INVESTMENT AMOUNT

123

TL million

Project for Improving the Air Quality of Bursa

Contributing TL 1.5 million to the "Project for Improving the Air Quality of Bursa," initiated in September 2017 in cooperation with the Bursa Metropolitan Municipality and planned to last for 3 years, Bursagaz aims to reduce air pollution and improve the air quality. Within the scope of the Project, advantages such as natural gas supply for low-income families, natural gas stoves, deposit fee supports as well as the subscription fees of households without subscription are covered by Bursa Metropolitan Municipality.

Safe Natural Gas Campaign

In the "Safe Natural Gas Campaign," which is held regularly every year with the motto, "Safety of Your Family is in Your Hands;" the Cooperation with Bursa Metropolitan Municipality is ongoing. Since 2015, safe natural gas usage notification works, carried out as a campaign as well as efforts are made as of the autumn period, when the use of natural gas started to increase and these efforts continue throughout the year.

High Time Campaign

Initiated in June 2019 in order to create awareness on natural gas usage by Bursagaz, the "High Time" campaign continued until September 30. Aiming to introduce the entire Bursa with natural gas under the motto "It is Time to Subscribe for Natural Gas!", Bursa residents were given the opportunity to make natural gas subscriptions with economical and advantageous prices during the summer.

Investments in 2019

Within the scope of natural gas investment in residential areas in the mountains started in 2018, 320 subscribers in Keles district started using natural gas. Bursagaz aims to complete its investments in three other districts; Harmancık, Orhaneli and Büyükorhan as well as in Uludağ Oteller region.

When the project is completed, a 110-kilometer high-pressure natural gas transmission line and a total of 115 kilometers of natural gas distribution line will be built in district centers and approximately 20 thousand persons will be introduced to natural gas. In 2019, a total of TL 123 million was spent on investment including the residential areas in the mountains and it is planned to make a network investment of approximately TL 137 million in Bursagaz license area including mountain areas in 2020.

Awards in 2019

- The Pipeline Integrity Project (SPRING) developed by Bursagaz, which is a first in the natural gas distribution sector was awarded the "R&D Achievement Award" in the 4th R&D in Energy Workshop held by the Energy Market Regulatory Authority (EMRA), Electricity Distribution Services Association (ELDER) and Natural Gas Distribution Companies Association of Turkey (GAZBIR).
- Bursagaz Nature Club was awarded the "Most Environmentally Friendly Project of the Year" in the ceremony held by Mavi Keyif Diving Center with the underwater cleaning project carried out in Narlı and in which three containers of waste was collected.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Distribution and Retail

KAYSERİGAZ KAYSERİ DOĞALGAZ DAĞITIM PAZARLAMA VE TİCARET A.Ş

Playing a pivotal role in safe and uninterrupted energy provision for Kayseri, Kayserigaz has provided 684 million Sm^3 of natural gas to subscribers in 2019.

DATE OF ESTABLISHMENT

2003

NUMBER OF EMPLOYEES

147
Kayserigaz

100
Enervis

SHAREHOLDING STRUCTURE

100%

SOCAR Türkiye
80%

Çalık Enerji
10%

Kayseri Metropolitan Municipality
10%

www.kayserigaz.com.tr

Kayserigaz was established in 2003 and commenced operations under the first natural gas distribution tender organized by EMRA in Turkey.

Kayserigaz reaches higher numbers of subscribers every year. Providing energy to each and every street and corner of Kayseri, the Company has a provision coverage in almost all developed lands.

Kayserigaz Solution Point and Call Center, now a global success story, enables the Company to communicate with subscribers and manage processes on a single, integrated platform.

Inquiries, requests and expectations from subscribers are handled by a single place; subscribers are able to reach the Call Center when in need 24/7. Furthermore, uninterrupted and interactive communication with customers is guaranteed through the Live Support Line and social platforms.

Playing a pivotal role in safe and uninterrupted energy provision for Kayseri, Kayserigaz has provided 684,135,241 Sm^3 of natural gas to subscribers in 2019. Since the first day of providing natural gas services, Kayserigaz has contributed significantly to reduce air pollution in the city.

Kayserigaz's Distribution Network

- Kayseri (City Center)
- Kocasinan
- Bünyan
- İncesu
- Develi
- Hacılar
- Melikgazi
- Talas
- Tomarza
- Yahyalı
- Yeşilhisar

"Firsts" and "Major Achievements" in the Sector

- The first natural gas company holding ISO 31000 certificate
- The first natural gas distribution tender of the Energy Market Regulatory Authority (EMRA) in 2003
- The first company in Turkey to use the Barcode System integrated with the SAP (Systems Analysis and Program Development) System
- Kayserigaz has started to exert efforts for transition to ISO 45001. The company whose team took the Lead Auditor Training under the ISO 45001 Occupational Health and Safety Management System and became Turkey's first lead auditors
- The first company in the natural gas distribution sector to be deemed worthy of the Occupational Health and Safety Management System ISO 45001 certificate accredited by TÜRKAK
- The company with an employee satisfaction of 98%

Quality Standards and Certifications

- ISO 9001 Quality Management System
- ISO 14001 Environmental Management System
- OHSAS 18001 Occupational Health and Safety Management System
- ISO 27001 Information Security Management System
- 10002 Customer Satisfaction and Complaints Handling
- ISO 31000 Corporate Risk Management System
- ISO 45001 Occupational Health and Safety Management System Certificate

2019 Operations by Numbers

- 2019 Investment Amount: TL 57 million (Network + Non-Network)
- 2019 Length: 407 km
- 2019 Year-End Total Length: 5,188 km
- 2019 Year-End Subscriber Number: 547,564 (number of independent sections)
- 2019 Year-End Penetration Rate: 93%
- Annual Natural Gas Supply: 684,135,241 Sm^3
- Cumulative Investment Amount: TL 426 million

Developments in 2019

In 2019, Kayserigaz's majority shares belonging to German EWE AG were transferred to SOCAR Turkey. In June, an important assignment was made in SOCAR Türkiye Doğal Gaz Holding A.Ş. following the transfer of Kayserigaz, which started to operate under the structure of Kayserigaz. Dinçer Akbaba was appointed as the General Manager of Kayserigaz, which has one of the most modern natural gas distribution networks in Turkey.

Kayserigaz became the first company in the natural gas distribution sector to be deemed worthy of the Occupational Health and Safety Management System ISO 45001 certificate accredited by the Turkish Accreditation Agency (TÜRKAK).

Investments in 2019

In 2019, the comfort provided with Kayserigaz's natural gas extended to 36 thousand persons living Tomarza with an investment of TL 19.5 million. President Recep Tayyip Erdoğan attended to the groundbreaking ceremony via remote connection.

In 2020, Kayserigaz plans to invest in Talas-Kuruköprü District, Kocasinan-Ebiç Neighborhood and in Kayseri Province according to customer demands.

Kayserigaz Distribution Network as of the end of 2019

Area where Natural Gas is Distributed	11,746 km
Total Number of Districts	10
Steel Network	582 km
Polyethylene Network	4,595 km
Number of Gas Users	616.522 (number of independent sections)

Awards in 2019

- Kayserigaz Management Systems Manager Işıl Akkoç received the Professional Award at the Women Energizing Turkey Award Ceremony organized by the Ministry of Energy and Natural Resources.

Kayserigaz became the first company in the natural gas distribution sector to be deemed worthy of the Occupational Health and Safety Management System ISO 45001 certificate accredited by the Turkish Accreditation Agency (TÜRKAK).

Distribution and Retail

We improve our service quality with digital solutions.

As ARAS Elektrik; we improve our service quality and customer satisfaction with digital and technological steps such as SCADA and PLC Meter System in 2019, which we have chosen as the year of quality and efficiency. In order to deliver excellent service in 7 provinces and 58 districts, we improved our capabilities in the field.

Cihat Sarı

Proposals Junior Associate

TOTAL INVESTMENT AMOUNT FOR 7 YEARS

1.1

TL billion

IQB Solutions

IQB Solutions (Akılcı Bilişim Çözümleri ve Danışmanlık A.Ş.) was established as a Çalık Elektrik Dağıtım A.Ş. affiliate in May 2017 to provide technology, software and consultancy services on a national and international scale.

IQB Solutions aims to provide high-quality, reliable, quick and scalable solutions that use up-to-date technologies to its customers. The Company continues its activities by focusing on big data analytics, IoT technologies and digitalization solutions.

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The company has the following product portfolio as of 2019:

- IQPower Suite-Analytical Reporting Platform
- Utilon-Digital Customer Service Center Solution
- IQBig-Big Data Platform
- IQAoT-Iot Platform
- IQN-Energy Sales and Trade Management Solution
- EDVARS-Electricity Distribution Data Warehouse and Reporting Solution

Technovision

Founded in 1994 and joined Çalık Enerji in 2015, Technovision carries out its activities with the main goal of providing high quality engineering services and optimum designs for human-oriented products and solutions.

Continuing its activities with the motto “Line of Future;” Technovision focuses on solving the problems that may arise during operations with a dynamic approach, while turning each of these problems into opportunities for the improvement process.

Technovision is an engineering company which provides services to many companies from various sectors, especially to contracting firms and financial institutions, in the industrial markets as well as energy, oil and gas.

Founded in 1994 and joined Çalık Enerji in 2015, Technovision carries out its activities with the main goal of providing high quality engineering services and optimum designs for human-oriented products and solutions.

Continuing its activities with the motto “Line of Future;” Technovision focuses on solving the problems that may arise during operations with a dynamic approach, while turning each of these problems into opportunities for the improvement process.

Vision and mission of Technovision is to reflect a corporate approach which is beyond a mandatory rulebook, in which the employees follow in every part of their professional lives.

R&D Efforts

Çalık Enerji envisages that the future of the energy sector will be defined by value-added, innovative and environmentally friendly technologies that will boost efficiency. It is through this vision that the Company shapes its operations and pioneers groundbreaking practices by making R&D and innovation investments in the light of emerging trends.

IQB SOLUTIONS R&D INVESTMENTS

2.5

TL million

The Company successfully aligns its business processes with the transformation triggered by new technologies and digitalization. It is thanks to this approach that Çalık Enerji improves its competitive power, customer satisfaction, cost effectiveness and operational excellence.

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Placing great emphasis on the evolving renewable energy sector, the Company closely monitors new trends that will shape the sector such as Industry 4.0, digitalization, storage systems, and smart grids. Çalık Enerji tests the use of such technologies in its new projects, striving to create new business models and seeking ways to offer distinctive projects to its customers.

The common feature of all Çalık Enerji investments is that they adopt a human-oriented approach that puts high technology in the center. The Company successfully aligns its business processes with the transformation triggered by new technologies and digitalization. It is thanks to this approach that Çalık Enerji improves its competitive power, customer satisfaction, cost effectiveness and operational excellence.

IQB Solutions

Çalık Enerji invested in the establishment of IQB Solutions, which develops big data, IoT and digitalization solutions. 2018, IQB Solutions launched the Big Data platform IQBig and the IoT platform IQoT, both of which enabled customers to implement digital transformation projects at international standards. With the IQPower product developed on IQBig and IQoT infrastructure, it aims to transform the operational processes of energy generation companies.

Using these products at Çalık Enerji's power plants helps collect and make sense 500 million pieces of data daily on the site. Furthermore, analyses of power plant performance are much more effective thanks to IQPower, an Analytical Reporting Solution that interoperates with IQBig and IQoT. IQPower helped IQB provide business intelligence reports and AI analytics services end-to-end, from the source of data to the end user. IQB aims to offer custom solutions through IQBig and IQoT in various sectors such as smart grids and cities, power plants and factory automations. In the meanwhile, Utilon product helped IQB entirely digitize new connection procedures of electricity distribution companies and enabled customers to perform all their transactions online. This transformation project also paved the way for improved customer satisfaction and operational efficiency. By spending TL 2.5 million on investment since 2017 when it was established, IQB Solutions continues to expand its product portfolio.

In March 2019, IQB Solutions have introduced IQWind, the firs module of IQPower at the Microsoft Technology Summit. As the only company to be invited from Turkey to the Microsoft IoT Elite Partner Summit held in Seattle in March, opinions were shared on current technologies in the field of IoT. Also, the company participated to the Artificial Intelligence Conference at Samsun Ondokuz Mayıs University and explained big data technologies.

In November 2019, the company participated in the Microsoft Business Partners Summit as a Microsoft Cloud Solution Partner and received the "Most Successful Digital Transformation Award" in the area of production by Microsoft.

YEDAŞ

Focusing on R&D activities for electrical energy storage systems, YEDAŞ completed the installation of the 500 kW Battery Powered Energy Storage System (BESS) in Çorum-Alaca region in 2019. YEDAŞ continues its activities in order to observe the impact of Energy Storage Systems on the electricity distribution network scale and to research the usage areas of these systems (frequency regulation, reactive power control, investment postponement etc.).

With the R&D project named "Improving Loss and Fault Analysis Processes Using Big Data Algorithms" conducted with IQB Solutions, present and future data source systems as well as the data flow model between these systems have been established in YEDAŞ while data management strategies and implementation roadmaps have been developed for data analytics. Big data algorithms were developed to improve leakage prevention activities and to perform network failure root-cause analysis more accurately; these algorithms were applied on the network to be developed for the selective usage areas. In the software developed, descriptive, diagnostic, predictive and prescriptive analytical methods; artificial intelligence and machine learning as well as approaches such as advanced visualization were used.

Continuing to make electricity distribution network available for electric vehicles, with their number increasing day by day, YEDAŞ started "My Energy is Everywhere" project in 2019. With My Energy is Everywhere Project, activities have been initiated to develop solutions to ensure widespread and mobile use of electrical energy supply. It is aimed to develop and test the infrastructure of a system which is provided by the electric distribution company regardless of the installation and in which the usage and payment methods are made via mobile devices with My Energy is Everywhere Project.

YEDAŞ went digital in new subscription processes and achieved the first three phases of the EDAŞ Online Project. With EDAŞ Online, a platform was established in order to ensure that customers in YEDAŞ area can make their transactions online, intra-region standardization was provided and the entire process has become digitally manageable and traceable via internal evaluation of applications and reporting.

In addition, the OMS project, which continues to develop software with its own funds has been fully integrated with other related systems such as SCADA, OSOS, Call Center, WFM, GIS. Continuing its efforts to provide uninterrupted service to more than 2 million customers in 5 provinces where it operates, YEDAŞ aims with the OMS Project to detect the interruptions early and automatically with data coming from the call center without the need for customer notifications, more efficient management of field operations of teams by tracking team

With the R&D project named "Improving Loss and Fault Analysis Processes Using Big Data Algorithms" conducted with IQB Solutions, present and future data source systems as well as the data flow model between these systems have been established in YEDAŞ while data management strategies and implementation roadmaps have been developed for data analytics.

R&D Efforts

In order to manage the activities of failure management teams located in 7 provinces and 58 districts within ARAS EDAŞ area, the WFM (workforce management system) project was put into practice.

YEPAŞ customers are now able to carry out their transactions via the website (www.yepas.com) and the e-Government site (www.turkiye.gov.tr) without having to go to Customer Service Centers.

locations and interruption locations from a single screen and to increase customer satisfaction by early detection of customers affected by the interruption and sending SMS messages to inform customers about field operations carried out within the scope of the interruption.

YEPAŞ

- YEPAŞ's contracted N-Kolay stores started to be used as an active sales channel for electricity sales to eligible consumers and a total of 69 N Kolay Authorized Transaction Centers were established.
- YEPAŞ customers are now able to carry out their transactions via the website (www.yepas.com) and the e-Government site (www.turkiye.gov.tr) without having to go to Customer Service Centers.
- Thanks to the Dealer Portal commissioned, all kinds of information and subscription procedures cab be made by contacting the dealers of the company via live chat.
- Thanks to the Customer Portal designed specifically for the customer, the Company customers are able to log in with their TR ID number and via telephone verification similar to an internet banking platform and they are able to reach all information on YEPAŞ, make new subscriptions, terminate current subscriptions, learn and pay debt amounts and make applications.

ARAS EDAŞ

In order to manage the activities of failure management teams located in 7 provinces and 58 districts within ARAS EDAŞ area, the WFM (workforce management system) project was put into practice.

With this project; the notifications reaching the Call Center are forwarded to the field teams and the activities carried out are recorded online.

The platform where all activities of field teams are monitored, right teams are assigned to right works on a timely manner, and customer demands are met in the fastest way, Mobile Workforce Management includes the following:

- Request management: Calls received from customers by CRM (Call Center) throughout the day are sent to the Outage Management System.
- Workforce planning: Teams are formed according to algorithms created for the optimized use of Company resources within the framework of rules determined beforehand.
- Workforce assignment: Work directives are automatically assigned to these teams in question.
- Mobile solutions: Work directives are terminated with real-time communication between job assigners and field technicians.

In parallel, all activities of field teams are reported and able to be monitored 24 hours a day by the managers in 7 provinces and 58 districts via the Mobile App.

KEDS

SCADA – Smart Metering - Kosovanet

Kosova Elektrik Dağıtım Hizmetleri (KEDS) continued its technology investments in 2019 in order to provide modern services to its customers. Smart meter systems were installed to the residences and workplaces of 9.61% of our customers as of the end of 2019. In addition, SCADA systems have been integrated into 40 of a total of 69 main distribution centers. In these regions, operational activities and energy services can be managed remotely and effectively with no need for field operations. While the Kosovanet software developed by the IT Department provides the opportunity to remotely monitor the field operations, it also provides ease in field management.

KEDS aims to include more customers into the smart network scope by continuing its R&D investments in 2020 as well as to provide a faster, more reliable and uninterrupted service.

BURSAGAZ

Attaching great importance to the use of new technologies for high customer satisfaction, quality and safe service, Bursagaz is among the companies in the natural gas distribution sector, with the highest number of R&D projects approved by the Energy Market Regulatory Authority (EMRA).

Having approved 9 projects among 27 projects by EMRA, Bursagaz put into practice the Visual Learning Center R&D project in 2019 and received approval from EMRA for 3 new R&D projects including Fiber Optic, Remote Gas Cutting and Composite.

Visual Learning Center Project

With this project; a virtual learning center with technological equipment which will support the interior installation companies that are business partners of the company and the students who aim for a career in this sector to transform learning as well as knowledge in various technical issues of the sector into behavior.

Kosova Elektrik Dağıtım Hizmetleri (KEDS) continued its technology investments in 2019 in order to provide modern services to its customers. Smart meter systems were installed to the residences and workplaces of 9.61% of our customers as of the end of 2019.

R&D Efforts

Leading the natural gas distribution sector in the field of R&D, Kayserigaz implemented the "Project for Increasing Productivity and Service Quality with Change Engineering Approaches," which is the first R&D project in the sector accepted by EMRA.

As the architect of the first R&D project that differentiates Kayserigaz in its field of activity and enabled the Company to receive numerous awards, Işıl Akkoç ranked among the "Women Energizing Turkey" in March 2019.

Underground Natural Gas Leakage Detection Project (Fiber Optic R&D Project)

With Fiber Optic Project, it is aimed to detect the gas leakage, illegal digging, violation etc. situations in natural gas lines via acoustic perception, to be informed in advance with the alarm system and to take such circumstances under control and therefore to provide a continuous and secure natural gas supply.

Remote Gas Cutting R&D Project

The project includes the replacement of meters whose gas cannot be cut due to physical barriers with meters suitable for remote cutting. This project will be integrated to the Polaris Remote Meter Reading project which is currently ongoing and therefore remote gas cutting actions can be performed as a new function to be included to remote meter reading.

Composite R&D Project

Within the framework of this project, it is planned to develop a polymer based composite material instead of steel pipe in the medium pressure network (19 bar). With this material to be developed, the manufacturing in the field will be much easier and reliable; therefore pipe production costs and the labor costs will be reduced. Also, the design restrictions and the corrosion damages in steel pipe will be eliminated thanks to this material.

KAYSERİGAZ

Among the advantages that highlight Kayserigaz, which has provided uninterrupted and quality service in Kayseri for years, lies its advanced technology and the importance it attaches to R&D. Leading the natural gas distribution sector in the field of R&D, Kayserigaz implemented the "Project for Increasing Productivity and Service Quality with Change Engineering Approaches," which is the first R&D project in the sector accepted by EMRA. In this project, business processes were reviewed and radically redesigned in order to implement essential developments in the most important performance measures such as service and speed. The project of the Company was also awarded at the 3rd R&D in Energy Workshop, held with the coordination of EMRA in 2017. As the architect of the first R&D project that differentiates Kayserigaz in its field of activity and enabled the Company to receive numerous awards, Işıl Akkoç ranked among the "Women Energizing Turkey" in March 2019.

AMR Project, Leak Detection Project, Progress Payment Project, Polaris Project, Customer Self Service, Kayserigaz QDMS, IS-U Modernization Project, Online Warning Letter, Workforce Management (WFM) and Robotic Process Automation are also among the most important projects developed by Kayserigaz employees.

Procurement and Logistics

The purchasing and logistics policy established in accordance with the general policies and strategies of Çalık Holding and Çalık Enerji focuses on determining and implementing purchasing strategies that will contribute to all objectives of Çalık Enerji.

Procurement and Logistics departments is one of the most competent teams in its area of operation by using the best practices in global and industrial level. The department is able to supply the high-quality product in a timely manner, in competitive conditions by evaluating all national and global supply alternatives.

The purchasing and logistics policy established in accordance with the general policies and strategies of Çalık Holding and Çalık Enerji focuses on determining and implementing purchasing strategies that will contribute to all objectives of the Company. In this context, Çalık Enerji Procurement and Logistics Department aims for the most efficient total cost of ownership by providing the highest quality and performance while responding to the needs and requirements of the Company. In this direction, it aims to establish, execute and develop long term business relations based on mutual trust and cooperation with its current and potential business partners in a fair and equal distance, within the scope of the general and Corporate code of ethics, in compliance with the national and global regulations.

Procurement and Logistics departments is one of the most competent teams in its area of operation by using the best practices in global and industrial level.

By evaluating all national and global supply alternatives, the Department established long-term business relations with companies that are able to provide the high quality product in a timely manner, in competitive terms, who prioritizes research and development in order to be specialized in their own line of business, who produce in compliance with national and international Environmental and Occupational Safety standards and who adopt a contemporary management approach. The Department prefers to work with suppliers that invest in technology development, human resources who respect the environment and human health, and supports the development of its current suppliers in these matters.

In evaluations and audits for suppliers in this regard, Procurement and Logistics Department questions the suppliers’ compliance with business ethics rules, expects improvements for nonconformities and checks such improvements with follow-up audits.

Sustainability

All our energy is for sustainable successes.

As Çalık Enerji, we plan every project we make as a solid step into the future. We do not consider profitability as a sole measure of success. As long as we make long-term contributions to the national economy and the social development with the employment and value we create, we consider ourselves successful.

Gözde Kıran

Company Lawyer

Sustainability Efforts of Çalık Enerji

We work to create a better and sustainable future. We are committed to achieving continuous and long-term success while acting responsibly for the environment and human health. Thanks to our environmentally friendly production, we continue to create value for the future.

With the ceremony held on May 6, 2019, Çalık Enerji became a signatory of the UN Global Compact, which is the largest corporate sustainability initiative with more than 9,500 corporate and more than 3 thousand non-corporate members in over 160 countries.

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Started operation in 2000, UN Global Compact encourages companies to act in cooperation in order to create a sustainable and inclusive global economy that contributes to our world, all people, communities and markets.

UN Global Compact leads the world of business to achieve the Sustainable Development Goals while supporting companies across the world to make their strategies and operations compliant with 10 Principles in the fields of human rights, labor standards, environment and anti-corruption.

By signing these “10 Principles;” Çalık Enerji officialized its sustainability perspective and committed to regularly report its sustainability activities from now on.

Çalık Enerji plans to publish its first Sustainability Report in 2020, which will include the ongoing sustainability works.

Environmental Practices

Acting with the responsibility of operating in a sector with an extremely wide impact area, Çalık Enerji observes environmental performance at least as much as its financial return in its decision making processes in line with its sustainable corporate strategy.

Aware of its responsibility arising from its presence in an all-encompassing sector with a vast sphere of influence, Çalık Enerji considers sustainability an integral part of its corporate strategy. This is why the Company takes into account environmental performance as much as financial returns while deciding on investments, practices and service development processes.

The core objective of Çalık Enerji in environmental sustainability is i) conducting activities with minimum ecological footprint; ii) pioneering the development of innovative services and solutions of the future and increasing the value created for the environment through R&D efforts; and iii) engaging all the stakeholders in its value chain in this approach. Within this scope, the Company brings sustainability to the forefront in all business processes and manages its environmental impact in compliance with international management systems.

Carbon emission is a serious issue in all aspects of the environmental impact resulting from energy generation, a primary field of activity for Çalık Enerji. Therefore, the Company focuses on developing renewable energy projects so as to reduce use of fossil fuels. The recent solar power plant (SPP) projects undertaken by the Company pushed Çalık Enerji to take firmer steps to contribute to optimal use of natural resources. Clean energy generated through SPP investments of Çalık Enerji helped prevent 167,000 tons of CO_2 emissions as of the year-end 2019.

Çalık Enerji also established a waste management system to ensure full compliance with the Company's Environmental Policy and applicable laws regarding disposal of the waste resulting from its activities. In accordance with the management plans devised as part of the system, the Company tracks the waste at SPP sites. Waste is then sorted by their applicable class and either recovered or disposed as set forth in legal provisions. There is no hazardous waste at the SPPs of Çalık Enerji.

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Human Resources

Ultimate care is taken to ensure that every employee adopts, and takes into consideration in each step taken, the values that apply to Çalık Holding and all Group companies: fairness, human centricity, reputation, working from the heart, innovation, agility and sustainability.

Çalık Enerji is well aware that its qualified human resources are among the key factors that help maintain its successful performance. The Company regularly conducts activities in a wide range of areas from recruitment to professional and managerial training programs.

Çalık Enerji formulated its HR policies and practices based on the values of Çalık Holding. Ultimate care is taken to ensure that every employee adopts, and takes into consideration in each step taken, the values that apply to Çalık Holding and all Group companies: fairness, human centricity, reputation, working from the heart, innovation, agility and sustainability.

Çalık Enerji's Human Resources Policy

- Establishing an effective and efficient organization by taking Çalık Enerji's goals & strategies and employee motivation and loyalty into account
- Creating equal opportunities for employees
- Recruit right candidates through following effective measurement and assessment techniques
- Formulating HR plans in alignment with the Company's policies and strategies
- Addressing employees' social and cultural needs and thus raising awareness of the corporate culture to increase employee productivity
- Creating a professional working place that provides employees with improvement and development opportunities consummating their skills
- Updating employees' professional and personal competencies and hence helping them adopt a life-long learning and development path
- •Internally raising the future leaders who will act as mentors to ensure continuity of Çalık Enerji's goals and future
- Following career planning processes as per employees' competencies and goals and maximize their productivity

Çalık Enerji is well aware that its qualified human resources are among the key factors that help maintain its successful performance. The Company regularly conducts activities in a wide range of areas from recruitment to professional and managerial training programs.

Recruitment

Çalık Enerji's selection and placement system is basically intended to recruit dynamic candidates who are eligible with their educational attainment, and open to change and apt at team work, in addition to the potential to develop themselves and their business. The Company's core principle in selecting and placing candidates is to provide, with no discrimination or privilege, equal opportunities to candidates who have the competencies required by the job and the capacity to embrace and live up to social values. Applications are examined diligently so as to recruit the best candidate who is capable of carrying Çalık Enerji to its corporate goals and is equipped with the basic competencies and professional skills. Selection tools, the validity and reliability of which are proven, are used to guarantee an impartial selection process. Personality Inventory and Language Proficiency tests are carried out so as to get further information about candidates' strengths, rooms for improvement and potentials.

Management of Remuneration and Fringe Benefits

Wages are paid monthly at Çalık Enerji. Monthly wages are determined by the Human Resources Department, which considers employees' assessment levels and experience required by their roles. In determining the wages, the HR Department takes the findings of the market research conducted at least once a year and current economic conditions into account.

Performance Assessment

Performance assessments are made every year to measure employees' productivity; identify promotion, career planning, rewarding and training requirements; and support employee development through feedback in rotations and organizational changes.

Training and Development

Equal opportunities are provided to human resources, who are capable of living up to the corporate goals of Çalık Enerji, in planning regular, effective, continuous and extensive training programs. The Company believes that employee development is only possible through continuous learning and training, and therefore aims to establish an environment where everybody can learn and flourish continuously.

Orientation

The primary goal of the Human Resources Department is to provide opportunities and guidance for employees to acquire extensive knowledge in their area of expertise and to use the same to develop themselves and their business. New recruits take orientation training, as part of which they are informed of the rules and procedures that help them comply with Çalık Enerji's vision, mission and organizational structure. During the training program, new recruits also acquire the capabilities to start their new job.

Career Management

At Çalık Enerji, there is an ongoing career planning process in place that provides each and every employee with equal opportunities. This process also helps employees improve themselves in their respective fields to achieve the future goals of the Company. Promotions are made to ensure alignment between the Company's future goals and employees' goals. Promotions also bring along more powers, more responsibilities and higher wages. Employees are expected to have the knowledge and experience required for a higher position in order to be promoted. Career opportunities across Çalık Holding and subsidiaries are also available for employees.

Çalık Enerji also acts as a guide for university students to determine their future. To come together with students, the Company participates in career days during which it shares its knowledge and experience so that students know what to pay attention to while looking for a job after graduation. Furthermore, job or internship applications are received from students, who are included in evaluations when the Company looks for interns or new graduates.

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Occupational Health and Safety Practices

The occupational health and safety policy is communicated to Çalık Enerji employees, subcontractors, and suppliers carrying out activities on behalf of Çalık Enerji; and announced at all sites of operation working under the control or on behalf of Çalık Enerji.

Known for its high-quality, creative, environmentally and human-friendly projects in the oil, gas and energy sectors, Çalık Enerji creates value by continuously improving its services and constantly informing its stakeholders.

Çalık Enerji boasts recognition in oil, gas and energy sectors with quality, creative projects that are sensitive to the environment and humans. The Company creates value through continuously improving its services and communicating with stakeholders.

At Çalık Enerji,

Leadership and Commitment

- Treating OHSE and related social responsibilities as a value
- Targeting continuous improvement to guarantee sustainability
- Determining and sharing roles and responsibilities
- Supporting every employee in taking steps to guarantee OHSE
- Belief in our zero-accident target and the determination to prevent environmental pollution and occupational diseases
- Procuring the tools necessary for construction sites and working places; establishing a safe working environment

Risk Management

- Adopting a risk-based thinking system
- Monitoring preventive measures
- Evaluating emergency risks and conducting mitigating activities
- Identifying the environmental and social impacts of all threats and risks
- Determining potential emergencies and accidents

Planning

- Identifying internal and external factors
- Determining risks and opportunities
- Identifying OSHE targets and sharing them with relevant parties
- Complying with all applicable laws regulations and requirements in Turkey and other countries of operation
- Preparing KPIs to reach those targets

Competencies

- Informing employees on the OHSE policy and encouraging them to contribute to OHSE
- Organizing OHSE trainings
- Raising employees' OSHE awareness

Implementation

- Carrying out all activities in compliance with OHSE management system
- Using natural resources efficiently
- Investing in protective equipment
- Managing emergency situations and carrying out drills

Monitoring and Review

- Monitoring OSHE targets and KPIs
- Considering Management's Review Inputs
- Assessing subcontractors' OHSE performance
- Sharing acquired corporate knowledge

Social Responsibilities

- Establishing good relations with the communities in geographies where projects are carried out and raising their OSHE awareness
- We care about, and are committed to, undertaking social responsibility activities to recover our losses on nature

This policy is communicated to Çalık Enerji employees, subcontractors, and suppliers carrying out activities on behalf of Çalık Enerji; and announced at all sites of operation working under the control or on behalf of Çalık Enerji.

Social Responsibility

We develop projects for the good of nature and society.

We care about realizing projects that will add value to society and the environment and to support different projects as well as being successful in our field of activity. We develop projects in areas such as education, innovation, social solidarity, environment, arts and sports by determining the needs of not only our country but also of other countries where we operate. We are happy to contribute to these projects as the employees

İdris Çiftçi

Project Junior Associate

Social Responsibility Projects

Çalık Enerji enhances the value it creates for society and stakeholders through not only investments and services but also the employment it creates and social responsibility projects it implements in all areas of activity.

Driven by a sustainable development approach, Çalık Enerji's social responsibility projects are implemented in various separate fields including education, innovation, social solidarity, environment, art and sports.

Çalık Enerji enhances the value it creates for society and stakeholders through not only investments and services but also the employment it creates and social responsibility projects it implements in all areas of activity. Driven by a sustainable development approach, the Company's social responsibility projects are implemented in various separate fields including education, innovation, social solidarity, environment, art and sports. The Company continued to develop social responsibility projects also in 2019 through identifying those areas and those countries in need of social responsibility projects.

MALAWI PROJECT

Finding out that female employees took their small age children to kindergarten which is around 1 km far on foot during the Tedzani 4 HEPP Project, a hydroelectric power plant with an installed capacity of 19.5 MW in Tedzani, Malawi, Çalık Enerji carried out activities to improve the inadequate conditions at school as well as providing the transportation of children by buses.

Cleaning and wall repairs were carried out in the kindergarten including covering the concrete floor and painting all the classrooms. Two coal blackboards were replaced with

white marker boards while suitable and colorful desks and chairs were supplied for children. Stationery to meet one year's need was provided to the school while educational materials to improve children's skills were purchased.

The positive feedbacks received after the renovation works on the kindergarten caused a strong bond with the local public and the Water Well Project, which will change the demographic structure of the region was initiated by evaluating their demands with social responsibility approach.

It was seen the people of the region met their water needs from puddles at different distances ranging from 150 to 500 meters from where they live and use the water they bring to their homes with buckets as laundry, personal care and drinking water; therefore it was seen that the disease risk is at a very high level. The risk in question triggered Çalık Enerji and feasibility studies were initiated for a water well.

Continuous flow of water has been provided by going down 50 meters with the excavations carried out, and a pump system was installed on the surface with piping method in order to prevent collapse in the water well.

The water samples taken from the well were sent to Blantyre Polytechnic University in order to determine its suitability. The well was opened for use on September 12, 2019 following the positive results regarding the analysis of the samples for drinking and daily use. Approximately 300 people living in the region benefit from the well.

Social responsibility is a core and indispensable component of the management approach for all activities of Çalık Enerji, which adopts a corporate and strategic framework in the projects it develops. The Company has also implemented numerous projects contributing to societal development through its Group companies.

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Social Responsibility Projects

Sharing the added value generated by the social responsibility projects it develops with the society, which constitutes the largest stakeholder mass, YEPAŞ continues to support education.

YEPAŞ supported the “100 Young People in the 100th Year” Project organized with the collaboration of Governorship of Samsun Coordination Center and the Presidency. Within the scope of the project the high school students determined by the governorships of Ankara and Ardahan were transported to Samsun on May 19.

YEPAŞ

Education

Sharing the added value generated by the social responsibility projects it develops with the society, which constitutes the largest stakeholder mass, YEPAŞ continues to support education. The company supported the pre-school students of Muş/Bulank Arakonak Elementary School in 2019. YEPAŞ completed the repair works for the Alaçam Kızılan Elementary School in Samsun.

Social Solidarity

YEPAŞ supported the “100 Young People in the 100th Year” Project organized with the collaboration of Governorship of Samsun Coordination Center and the Presidency. Within the scope of the project the high school students determined by the governorships of Ankara and Ardahan were transported to Samsun on May 19. Samsun City Tourism map was designed especially for the 100th anniversary of May 19 by being fictionalized with YEPYEP, YEPAŞ’s mascot. The students participating to the event were given hats with YEPAŞ logo and the Nutuk (The Speech) Book at the end of the event.


★ADALET
★BAŞARI
★DÜRÜSTLÜK
★SAYGI
★SEVGİ
SAMSUN - ALAÇAM
KIZLAN İLKOK LU

Social Responsibility Projects

Continuing to make electricity distribution network available for electric vehicles, with their number increasing day by day, YEDAŞ started “My Energy is Everywhere” Project in 2019.

Making social responsibility projects without slowing down in 2019, YEDAŞ provides trainings to elementary school students within the scope of “Energy Saving Week” to create an awareness on energy saving.

YEDAŞ

Education

Making social responsibility projects without slowing down in 2019, YEDAŞ provides trainings to elementary school students within the scope of “Energy Saving Week” to create an awareness on energy saving.

Meeting with the Faculty of Engineering students at the “OMÜHENDİS Career Days” organized by 19 Mayıs University IEEE Student Society; YEDAŞ gave information on the electric distribution sector.

Innovation and Entrepreneurship

Producing effective solutions that will make consumers’ lives easier by integrating today’s technology into business processes; YEDAŞ has developed and implemented the EDAŞ Online System, which is a first in the electricity distribution sector in Turkey, which allows users to make new subscription applications through its website.

Continuing to make electricity distribution network available for electric vehicles, with their number increasing day by day, YEDAŞ started “My Energy is Everywhere” Project in 2019.

Focusing on R&D activities for electrical energy storage systems, YEDAŞ completed the installation of the 500 kW Battery Powered Energy Storage System (BESS) in Çorum-Alaca region in 2019.

Social Solidarity

In order to raise awareness of the importance of blood donation, YEDAŞ personnel fulfilled their human-oriented responsibility this year and supported the "Blood Donation Campaign to the Red Crescent" organized in the Headquarters building as in every year.

Adopting "Occupational Health and Safety" as a culture and applying it in all processes, YEDAŞ carried out a real fire drill and many citizens participated in the exercise.

Environment

Within the scope of "Breath to the Future" campaign of the Ministry of Agriculture and Forestry; YEDAŞ fully supported the "planting the most saplings in 1 hour" record which is registered by Guinness.

Inspired from the zero waste project initiated by the Ministry of Environment and Urbanization, YEDAŞ started using glass jugs and cups rather than plastic cups in 2019 and eliminated its negative impact towards the environment by providing an average of 1.5 tons of recycling per year.

YEDAŞ employees raised "awareness" by visiting Samsun Metropolitan Municipality Animal Shelter on October 4th Animal Protection Day.

Sports

As the sponsor of the Amasya Table Tennis Team, YEDAŞ supports the team in table tennis tournaments.

Within the scope of "Breath to the Future" campaign of the Ministry of Agriculture and Forestry; YEDAŞ fully supported the "planting the most saplings in 1 hour" record which is registered by Guinness.

Social Responsibility Projects

Within the scope of KEDS Academy program; every year 50 students have the chance to participate in the academic program initiated, managed and funded by KEDS with support from the Public University of Pristina, Ministry of Education, Science and Technology and Istanbul Boğaziçi University.

In 2019, KEDS participated to the blood donation event with the collaboration of the Kosovo National Blood Transfusion Center and the employees voluntarily donated blood in order to encourage donation.

KEDS

Education

KEDS Academy, a social responsibility initiative aiming to provide young people around the world with access to higher education and employment opportunities, pioneers other organizations in similar social responsibility projects. The 6th generation of the training courses under KEDS Academy have been successfully completed.

Within the scope of KEDS Academy program; every year 50 students have the chance to participate in the academic program initiated, managed and funded by KEDS with support from the Public University of Pristina, Ministry of Education, Science and Technology and Istanbul Boğaziçi University. Part of the one-year program is the theoretical part held by KEDS experts and professors from Boğaziçi University, the practical part, which continues with the internship phase and the possibility of employing these students in the Company.

With the project named "Lessons on Electric Efficiency," elementary school students learn about electrical efficiency in the sessions organized at KEDS headquarters in cooperation with KEDS Academy students and KEDS employees. This is an ongoing program, while in 2019, over 500 elementary school students nationwide participated in lectures.

KEDS donated books to the Termokiss Cultural Center and Venture UP Entrepreneurship Center, which are the popular locations of Kosovar students.

Inviting the daughters of employees to the office on the International Day of the Girl Child, KEDS allowed them to see the environment where their parents work. An informative conference was held for employees as part of the Breast Cancer Awareness Day.

Carrying out its activities focused on society and donation, KEDS donated 30 tablets to children at The Ideas Partnership, SOS Villages and Institute of Oncology, Pediatrics in 2019.

KEDS and KESCO volunteers have prepared gifts for the pupils of two Kosovo primary schools, delivering them right before new year.

Social Solidarity

In 2019, KEDS participated to the blood donation event with the collaboration of the Kosovo National Blood Transfusion Center and the employees voluntarily donated blood in order to encourage donation.

Environment

During the Earth Day event which lasted three days, 60 seedlings and 800 flowers were donated and planted in the yards of the three primary schools in Ferizaj, Gjilan and Pristina. The project involved over 100 KEDS volunteer employees, along with dozens of school members, including students where the seedlings and flowers were planted together.

Art

Getting together with children with Down syndrome, KEDS employees painted one of the transformer stations in Pristina in various colors in cooperation with NGO Down Syndrome Kosovo and NGO TOKA volunteers.

Getting together with children with Down syndrome, KEDS employees painted one of the transformer stations in Pristina in various colors in cooperation with NGO Down Syndrome Kosovo and NGO TOKA volunteers.

Social Responsibility Projects

Bursagaz Nature Club members have prepared houses for stray animals by using materials such as pallets and cabinets allocated for recycling in Bursagaz.

Bursagaz Nature Club went to the coast of Mudanya district to do underwater cleaning. Divers dived into the areas to be cleaned under water.

BURSAGAZ

Bursagaz Nature Club members have prepared houses for stray animals by using materials such as pallets and cabinets allocated for recycling in Bursagaz. Animal houses in various sizes prepared by the club are placed all around the city. Placing two dog houses on Orhaneli road and Keles square and one large house in the Balat area, the members have delivered two large dog houses to the Uludağ National Park officials. Also designing huts for cats, Bursagaz Nature Club placed the triple house to Kültürpark, and the double house to Hamitler region.

Bursagaz Nature Club went to the coast of Mudanya district to do underwater cleaning. Divers dived into the areas to be cleaned under water.

KAYSERİGAZ

Carrying out activities that raise awareness for the participation of disabled individuals in social life, Kayserigaz supported the Anatolia Disabled Association events "The 9th International Barrier-Free Erciyes Days" attended by approximately 500 visual, hearing and physically handicapped citizens at the Erciyes Ski Center. Kayserigaz employees supported the Melikgazi Sports Club for the Physically-Handicapped and went to the club's wheelchair basketball games.

In 2019, Kayserigaz organized a theater activity on energy saving at BYZ Outlet Shopping Center within the scope of the Energy Saving Week. Also during the year; Kayserigaz's mascot Dolgi and its friends visited kindergartens on the environment day. Children were informed on the protection of the environment and all creatures. Kayserigaz celebrated April 23 National Sovereignty and Children's Day with the festival held in the new corporate building. Children had a fun time with Dolgi and his friends at the event held in the new building of Kayserigaz.

Kayserigaz supported the "Breath to the Future" campaign of the Ministry of Agriculture and Forestry with 4,800 saplings. 75 employees from the company planted the saplings themselves to the area reserved in Mimarsinan Organized Industrial Zone next to Kayserigaz Memorial Forest.

Furthermore; in 2019, the 5th Erciyes Excellence Summit was held with the support of Kayserigaz. Dinçer Akbaba, General Manager of Kayserigaz, made a speech at the "Leadership for Successes to Carry the Future" session.

Continuing to organize Blood Donation Campaign with the support of the Red Crescent; Kayserigaz has become a hope for those in need of blood in 2019 as well.

Kayserigaz supported the Anatolia Disabled Association events "The 9th International Barrier-Free Erciyes Days" attended by approximately 500 visual, hearing and physically handicapped citizens at the Erciyes Ski Center.

Remarks Regarding Internal Control and Internal Audit

Çalık Holding A.Ş. The Audit Group Directorate (Audit Group) at Çalık Enerji carries out audit and consultancy activities in financial, operational, IT and technical areas.

The Group conducts process audits, financial audits, tax audits, financial and technical audits on EPC projects, and consultancy activities when needed.

Working in compliance with the International Standards for the Professional Practice of Internal Auditing, the Group evaluates and audits Çalık Enerji's and subsidiaries' Internal Control Systems' compliance with COSO standards and best practices.

The Audit Group aims to improve accuracy and reliability of financial and operational transactions, ensure compliance with legal regulations and corporate procedures, protect company's assets, and enhance efficiency and effectiveness of operational processes, through establishing an effective internal control system and developing corporate governance practices at Çalık Enerji.

The Group periodically reports to Çalık Enerji's Board of Directors and Audit Board on the findings of its audit activities.

Before reporting audit findings, the Audit Group recommends actions regarding the issues identified and communicates with the relevant department on those findings and action plans.

Action plans are developed upon mutual agreement with relevant departments. The Group is also in charge of ensuring effective implementation of the measures taken by the Management, monitoring the progress, and tracking the actions.

Our Quality Policy

Çalık Enerji is recognized in the energy sector with its quality, creative projects that are sensitive to the environment and humans. The Company creates value through continuously improving its services and communicating with stakeholders.

At Çalık Enerji,

Customer-Centricity and Feedback

- Acting in alignment with customers regarding requirements and indicators
- Responding quickly to customers' concerns and opinions
- Focusing on maximizing customer satisfaction
- Fulfilling applicable requirements

Leadership and Management

- Encouraging the staff to identify quality issues
- Maintaining an open-minded environment
- Providing resources required for the quality management system
- Taking responsibility to ensure effectiveness of the quality management system
- Encouraging use of a process-based approach and risk-based thinking

Processes and Procedures

- Implementing effective procedures, processes and training programs
- Ensuring commitment to processes that have become part of the culture
- Developing procedures in a timely manner
- Encouraging feedback to improve processes
- Improving the quality management system

Transparency

- Exhibiting questioning behavior
- Handling problems transparently
- Encouraging stop of work when in doubt of quality
- Encouraging employees to determine and solve quality problems.

Empowerment

- Not compromising on quality due to concerns around costs or work schedule
- Being proud of the quality of the job done by employees; encouraging them to take responsibility, report, and provide feedback about, their quality concerns

Monitoring and Communication

- Investigating and reporting problems with determination;
- Solving problems in a timely manner
- Checking quality indicators
- Sharing the experiences and best practices to make them part of the corporate culture

Information and Sustainability

- We are committed to, and care about, protecting and preserving corporate information and culture; valuing and protecting Company's assets; identifying risks and opportunities with a potential impact on the quality management system; and encouraging employee competencies and career development.

This policy will be communicated to Çalık Enerji employees, subcontractors, and suppliers carrying out activities on behalf of Çalık Enerji; and will be announced at all sites of operation working under the control or on behalf of Çalık Enerji.

Çalık Enerji's Quality Standards and Certifications

- ISO 9001:2015 Quality Management System
- ISO 14001:2015 Environmental Management System
- OHSAS 18001 Occupational Health and Safety Management System
- ASME A, S, U Stampler Boiler and Pressure Vessel Directive

ÇALIK ENERJİ SANAYİ VE TİCARET ANONİM ŞİRKETİ AND ITS SUBSIDIARIES

CONSOLIDATED FINANCIAL STATEMENTS AS AT AND FOR THE YEAR ENDED 31 DECEMBER 2019 WITH INDEPENDENT AUDITOR'S REPORT

Çalık Enerji Sanayi ve Ticaret Anonim Şirketi and its Subsidiaries

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Güney Bağımsız Denetim ve SMMM A.Ş.
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Independent auditor's report

To the Board of Directors of Çalık Enerji Sanayi ve Ticaret Anonim Şirketi

Report on the audit of the consolidated financial statements

Opinion

We have audited the consolidated financial statements of Çalık Enerji Sanayi ve Ticaret Anonim Şirketi (the Company) and its subsidiaries (the Group), which comprise the consolidated statement of financial position as at December 31, 2019, and the consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at December 31, 2019, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRSs).

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the consolidated financial statements* section of our report. We are independent of the Group in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA Code) together with the ethical requirements that are relevant to our audit of the financial statements in Turkey, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the IESBA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

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Key Audit Matters	How key audit matters addressed in the audit
Service concession contracts	
The Group considered the terms of service concession agreements and applied a model in accordance with IFRIC 12 and recognize a financial asset in its consolidated financial statement. Group accounted the income which is calculated by effective interest method on financial assets as interest income from service concession agreements. In addition, the Group performs impairment assessments and book provisions if necessary for its financial assets within the scope of IFRS 9 Financial Instruments standard, since financial assets are subject to impairment. As at 31 December 2019, the Group has financial assets amounting to USD 291.057 thousands and interest income amounting to USD 33.154 thousands obtained by service concession agreements. Due to the complexity of the accounting of the service concession agreements in accordance with IFRIC 12 and the related legislation, and since such process requires use of management estimates accounting of service concession contracts has been identified as key audit matter. Details of financial assets carried as part of IFRIC 12 are disclosed in Note 17 of the consolidated financial statements.	Our audit procedures in this area include: - We have obtained and analyzed the service concession agreements. - We have evaluated the relevance of the revenue recognition model with the legislation. - As interest income is calculated based on the internal rate of return, the calculation of the internal rate of return is tested. - The payment amount confirmed to be paid by Energy Market Regulatory Authority ("EMRA") related to the investments controlled from the supporting documents. - Reasonable rate of return was controlled from the communiqué published in the Official Gazette. - Amount of financial asset calculated based on the service concession agreement model was agreed to the consolidated financial statements. - We have evaluated the adequacy of the financial statement disclosures.

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Revenue recognition	
The Group conducts mainly engineering, procurement and construction projects ("EPC") in Turkey and abroad. The revenue from the construction contracts amounting to USD 259.080 thousands constituted a significant portion of the Group's total revenue as of and for the year ended 31 December 2019. The recognition of the amount and timing of the revenue generated from EPC projects in the period in which they are incurred calculated and accounted for by using the input method under TFRS 15 Revenue from Contracts with Customers. By using the input method revenue is recognized by comparing the costs incurred by the Group for the fulfillment of performance obligations in an EPC project to the expected total costs for the fulfillment of performance obligation in the consolidated financial statements. The measurement of the contract revenue and estimation of the contract costs are based on a variety of uncertainties that depend on the outcome of future events and demand of revision of the projects which require significant management's estimates and judgements. Revenue recognition from EPC contracts were determined as key audit matter, due to the significant management estimates and the level judgement.	Our audit procedures in this area include: - We evaluated the operating effectiveness of the controls over the relevant processes regarding the accuracy and timing of revenue recognized in the consolidated financial statements. - We assessed the terms and conditions of significant EPC contracts in order to evaluate the estimates used by the management and to determine whether the revenue is recognized in the relevant periods. - We have discussed the status and the cost budgets of projects under construction with finance and technical staff of the Group and obtained supporting documents. -The costs incurred by the Group for ongoing projects have been tested by using sampling method. - We have recomputed contract revenue by using the percentage of completion method. - We have tested journal entries related to accounting of revenue and contract by focusing on unusual and one-off journal entries. - We have tested the recoverability of the receivables from EPC contracts by assessing the historical collection performance of the Group, inspecting the relevant additional protocols and correspondences and discussing with the Group management. - We assessed the adequacy of the disclosures of revenue in the notes to the financial statements.

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Responsibilities of management and those charged with governance for the consolidated financial statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with IFRSs, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's financial reporting process.

Auditor's responsibilities for the audit of the consolidated financial statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.

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- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Güney Bağımsız Denetim ve Serbest Muhasebeci Mali Müşavirlik Anonim Şirketi
A member firm of Ernst & Young Global Limited

Mustafa Emin Aytaç, SMMM
Associate Partner

March 30, 2020
Istanbul, Turkey

Çalık Enerji Sanayi ve Ticaret Anonim Şirketi and its Subsidiaries

As at 31 December 2019
Consolidated Statement of Financial Position
(Amounts expressed in thousands of United States Dollar ("US Dollar") unless otherwise stated.)

	Note	Current Period Audited 31 December 2019	Restated (Note 2.5) Prior Period Audited 31 December 2018
ASSETS			
Current assets			
Cash and cash equivalents	5	90.009	35.799
Restricted amounts	6	64.191	27.244
Trade receivables		174.346	256.186
- Due from related parties	*4, 8*	*23.496*	*102.398*
- Due from third parties	*8*	*150.850*	*153.788*
Other receivables		50.077	68.358
- Due from related parties	*4, 9*	*27.343*	*60.198*
- Due from third parties	*9*	*22.734*	*8.160*
Receivables from customer contracts		2.453	*12.880*
- Contractual assets arising from ongoing construction and contracting works	*16*	2.453	12.880
Service concession receivables	*8*	48.974	70.140
Inventories	10	5.399	6.243
Prepayments	11	9.380	38.796
Current tax assets	21	266	49
Other current assets	15	11.285	17.193
Total current assets		**456.380**	**532.888**
Non-current assets			
Trade receivables		724	117.225
- Due from third parties	*8*	*724*	*69.483*
- Due from related parties	*4, 8*	-	*47.742*
Other receivables		107.437	144.105
- Due from related parties	*4, 9*	*101.420*	*139.163*
- Due from third parties	*9*	*6.017*	*4.942*
Service concession receivables	*8*	242.083	259.256
Financial investments	*7*	32.959	22.411
Equity accounted investees	12	169.935	125.179
Property, plant and equipment	13	105.604	108.826
Rights of use asset		4.113	-
Intangible assets	14	56.320	68.502
Prepayments	11	1.735	2.028
Deferred tax assets	21	7.271	3.708
Total non-current assets		**728.181**	**851.240**
Total assets		**1.184.561**	**1.384.128**

The accompanying notes form an integral part of these consolidated financial statements.

Çalık Enerji Sanayi ve Ticaret Anonim Şirketi and its Subsidiaries

As at 31 December 2019
Consolidated Statement of Financial Position
(Amounts expressed in thousands of United States Dollar ("US Dollar") unless otherwise stated.)

			Restated (Note 2.5)
		Current Period	**Prior Period**
		Audited	**Audited**
	Note	**31 December 2019**	**31 December 2018**
LIABILITIES			
Current liabilities			
Short term borrowings	17	108.088	32.436
Short term portion of long term borrowings	17	91.020	91.825
Trade payables		51.544	148.290
- Due to related parties	*4, 8*	*1.193*	*3.248*
- Due to third parties	*8*	*50.351*	*145.042*
Payables related to employee benefits	18	5.181	4.966
Other payables		70.885	28.395
- Due to related parties	*4, 9*	*62.219*	*22.475*
- Due to third parties	*9*	*8.666*	*5.920*
Payables from customer contracts		38.410	72.378
-Contractual liabilities arising from ongoing construction and contracting works	*16*	*38.410*	*72.378*
Deferred revenue	11	18.908	68.200
Current tax liabilities	21	210	2
Short term provisions		13.302	9.552
- Short term employee benefits	*19*	*1.392*	*1.508*
- Other short term provisions	*19*	*11.910*	*8.044*
Other current liabilities	15	20.741	24.821
Total current liabilities		**418.289**	**480.865**
Non-current liabilities			
Long term borrowings	17	94.020	173.967
Other payables		48.236	42.869
- Due to related parties	*4, 9*	-	*11*
- Due to third parties	*9*	*48.236*	*42.858*
Long term provisions	19	2.607	2.688
- Long term employee benefits		*2.607*	*2.688*
Deferred tax liabilities	21	14.548	23.519
Total non-current liabilities		**159.411**	**243.043**
Total liabilities		**577.700**	**723.908**
EQUITY			
Equity attributable to owners of the Company			
Paid-in capital	22	79.975	79.975
Items that will or may be reclassified to profit or loss		(113.549)	(90.201)
Restricted reserves		213.318	177.715
Retained earnings		228.499	275.437
Net profit for the year		196.867	213.506
Total equity attributable to owners of the Company		**605.110**	**656.432**
Total non controlling interests	22	**1.751**	**3.788**
Total equity		**606.861**	**660.220**
Total equity and liabilities		**1.184.561**	**1.384.128**

The accompanying notes form an integral part of these consolidated financial statements.

Çalık Enerji Sanayi ve Ticaret Anonim Şirketi and its Subsidiaries

Consolidated Statement of Profit or Loss and Other Comprehensive Income
For the Year Ended 31 December 2019
(Amounts expressed in thousands of United States Dollar ("US Dollar") unless otherwise stated.)

			Restated (Note 2.5)
		Current Period	Prior Period
		Audited	Audited
	Note	*2019*	*2018*
Revenue	23	747.639	1.109.929
Cost of sales	24	(500.789)	(783.528)
Gross profit		**246.850**	**326.401**
Administrative expenses	24	(41.594)	(38.980)
Selling, marketing and distribution expenses	24	(15.299)	(18.904)
Research and development expenses	24	(8.110)	(4.523)
Share of profit of equity accounted investees	12	40.845	28.779
Other income from operating activities	25	28.318	168.196
Other expense from operating activities	25	(26.496)	(184.096)
Operating profit		**224.514**	**276.873**
Income from investing activities	26	5.706	658
Expenses from investing activities	26	(1)	(766)
IFRS 9 Impairment gains (cancellations) and cancellation of impairment losses	26	(3.312)	(3.413)
Operating profit before finance cost		**226.907**	**273.352**
Finance income	27	22.652	43.121
Finance costs	27	(40.558)	(77.101)
Net finance costs		**(17.906)**	**(33.980)**
Profit before tax		**209.001**	**239.372**
Tax expense			
Current tax expense	21	(23.196)	(12.933)
Deferred tax benefit/(expense)	21	11.553	(12.842)
Profit for the year		**197.358**	**213.597**
Profit attributable to:			
Owners of the Company		196.867	213.506
Non-controlling interests		491	91
Profit for the year		**197.358**	**213.597**
Other comprehensive income that may be reclassified to profit or loss			
Foreign currency translation differences from foreign operations		(25.783)	(139.244)
Total other comprehensive income		**(25.783)**	**(139.244)**
Total comprehensive income		**171.575**	**74.353**
Total comprehensive income attributable to:			
Owners of the Company		173.519	74.227
Non-controlling interests		(1.944)	126
Total comprehensive income		**171.575**	**74.353**

The accompanying notes form an integral part of these consolidated financial statements.

Çalık Enerji Sanayi ve Ticaret Anonim Şirketi and its Subsidiaries

Consolidated Statement of Changes in Equity
For the Year Ended 31 December 2019
(Amounts expressed in thousands of United States Dollar ("US Dollar") unless otherwise stated.)

			Other comprehensive income items that will or may be classified to profit or loss	Restricted reserves	Retained earnings				
	Note	*Paid in capital*	*Translation reserve t*	*Legal reserves*	*Retained earnings*	*Net profit for the year*	*Total equity attributable to owners of the Company*	*Non-controlling interests*	*Total equity*
Balances at 1 January 2019		**58.570**	**(127.134)**	**177.715**	**275.437**	**213.506**	**598.094**	**62.126**	**660.220**
Restatement in prior period financial statements	2.5	21.405	36.933	-	-	-	58.338	(58.338)	-
Balances at 1 January 2019 (Restated)		**79.975**	**(90.201)**	**177.715**	**275.437**	**213.506**	**656.432**	**3.788**	**660.220**
Total comprehensive income									
Profit for the year		-	-	-	-	196.867	196.867	491	197.358
Foreign currency translation differences		-	(23.348)	-	-	-	(23.348)	(2.435)	(25.783)
Total comprehensive income		**-**	**(23.348)**	**-**	**-**	**196.867**	**173.519**	**(1.944)**	**171.575**
Transaction with owners of the Company									
Capital decrease by subsidiaries		-	-	-	(2.171)	-	(2.171)	-	(2.171)
Acquisition of subsidiary		-	-	-	572	-	572	-	572
Dividends paid		-	-	35.603	(258.845)	-	(223.242)	(93)	(223.335)
Transfers		-	-	-	213.506	(213.506)	-	-	-
Total transaction with owners of the Company		**-**	**-**	**35.603**	**(46.938)**	**(213.506)**	**(224.841)**	**(93)**	**(224.934)**
Balances at 31 December 2019		**79.975**	**(113.549)**	**213.318**	**228.499**	**196.867**	**605.110**	**1.751**	**606.861**

The accompanying notes form an integral part of these consolidated financial statements.

Çalık Enerji Sanayi ve Ticaret Anonim Şirketi and its Subsidiaries

Consolidated Statement of Changes in Equity
For the Year Ended 31 December 2019
(Amounts expressed in thousands of United States Dollar ("US Dollar") unless otherwise stated.)

			Other comprehensive income items that will or may be classified to profit or loss	Restricted reserves	Retained earnings				
	Note	*Paid in capital*	*Translation reserve*	*Legal reserves*	*Retained earnings*	*Net profit for the year*	*Total equity attributable to owners of the Company*	*Non-controlling interests*	*Total equity*
Balances at 1 January 2018		**58.570**	**12.145**	**152.271**	**62.969**	**363.736**	**649.691**	**58.042**	**707.733**
Restatement of prior period financial statements	2.5	21.405	36.933	-	-	-	58.338	(58.338)	-
Balances at 1 January 2018 (Restated)		**79.975**	**49.078**	**152.271**	**62.969**	**363.736**	**708.029**	**(296)**	**707.733**
Total comprehensive income									
Profit for the year		-	-	-	-	213.506	213.506	91	213.597
Foreign currency translation differences		-	(139.279)	-	-	-	(139.279)	35	(139.244)
Total comprehensive income		**-**	**(139.279)**	**-**	**-**	**213.506**	**74.227**	**126**	**74.353**
Transaction with owners of the Company									
Dividends paid to non-controlling interests by subsidiaries		-	-	9	-	-	9	(115)	(106)
Participations to share capital increase by non controlling interests		-	-	-	-	-	-	3	3
Foundation of subsidiary with non-controlling interests		-	-	-	3.147	-	3.147	4.070	7.217
Dividends paid		-	-	25.435	(154.415)	-	(128.980)	-	(128.980)
Transfers		-	-	-	363.736	(363.736)	-	-	-
Total transaction with owners of the Company		**-**	**-**	**25.444**	**212.468**	**(363.736)**	**(125.824)**	**3.958**	**(121.866)**
Balances at 31 December 2018		**79.975**	**(90.201)**	**177.715**	**275.437**	**213.506**	**656.432**	**3.788**	**660.220**

The accompanying notes form an integral part of these consolidated financial statements.

Çalık Enerji Sanayi ve Ticaret Anonim Şirketi and its Subsidiaries

Consolidated Statement of Cash Flows
For the Year Ended 31 December 2019
(Amounts expressed in thousands of United States Dollar ("US Dollar") unless otherwise stated.)

	Notes	January 1 – December 31, 2019	January 1 – December 31, 2018
A.CASH FLOWS FROM OPERATING ACTIVITIES		**232.019**	**315.557**
Profit for the year		**197.358**	**213.597**
Adjustments to reconcile cash flow generated from operating activities:		**36.414**	**(241.494)**
Adjustments for depreciation and amortisation	24	20.246	21.550
Adjustments for doubtful receivables	8	3.312	1.729
Adjustments for provisions, net	19	5.421	4.063
Adjustments for share of profit of equity accounted investees	12	(40.845)	(28.779)
Adjustments for deposits and guarantee received	27	2.708	9.610
Adjustments for interest income and expenses		(9.042)	19.151
Adjustments for financial income of the service concession receivables	7	48.795	(11.126)
Adjustments for fair value changes of the financial investments	7	(5.663)	(16.742)
Adjustments for actual alternative investment income	7	(10.456)	(29.493)
Adjustments for customer agreements assets		10.427	(198.402)
Adjustments for tax expense	21	11.553	(12.842)
Adjustments for the net gains on sales of property, plant and equipment and intangible assets	26	(42)	(213)
Changes in working capital		**(3.330)**	**372.434**
Change in inventories		844	3.566
Change in trade receivables		195.901	289.521
Change in payables related to employee benefits		(197)	1.183
Change in other receivables, other current assets and other non current assets related with operating activities		(53.625)	252.457
Change in trade payables		(96.746)	(25.310)
Change in customer contract liabilities		(33.968)	6.579
Change in prepayments		29.709	19.683
Change in deferred income		(49.292)	(161.582)
Change in other payables and other liabilities related with operating activities		4.044	(13.663)
Cash flows used in operating activities		**1.577**	**(28.980)**
Employee termination indemnity paid	19	(1.677)	(157)
Collections from doubtful receivables	25	3.883	4.527
Taxes paid		(629)	(33.350)
B. CASH FLOWS USED IN INVESTING ACTIVITIES		**(19.856)**	**(10.378)**
Proceeds from sales of property, plant and equipment and intangible assets		30	1.189
Acquisition of subsidiaries	8	(1.944)	-
Proceeds from sales of available for sale financial investments	8	803	-
Acquisition of property, plant and equipment	13	(19.230)	(18.598)
Acquisition of property, intangible assets	14	(87)	(186)
Acquisition of subsidiary with non-controlling interests		572	7.217
C. CASH FLOWS USED IN FINANCING ACTIVITIES		**(132.170)**	**(154.727)**
Funds provided from/(to) related parties, net		110.331	(31.152)
Interest paid to related parties	27	(12.638)	(7.146)
Interest received from related parties	27	12.944	3.033
Dividend paid		(223.335)	(128.980)
Contribution to share capital increase of subsidiaries by non controlling interests		-	3
Change in restricted cash and cash equivalents	6	(36.947)	(20.347)
Proceeds from loans and borrowings	17	108.944	80.404
Repayment of loans and borrowings	17	(91.201)	(49.490)
Deposits and guarantees paid		(268)	(1.052)
BEFORE FOREIGN CURRENCY TRANSLATION EFFECT ON NET INCREASE IN CASH AND CASH EQUIVALENTS (A+B+C)		**79.993**	**150.452**
D. EFFECT OF FOREIGN CURRENCY TRANSLATION DIFFERENCE IN CASH AND CASH EQUIVALENTS		**(25.783)**	**(139.244)**
NET INCREASE/DECREASE IN CASH AND CASH EQUIVALENTS		**54.210**	**11.208**
E. CASH AND CASH EQUIVALENTS AT THE BEGINING OF THE PERIOD	5	**35.799**	**24.591**
CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD (A+B+C+E)	5	**90.009**	**35.799**

The accompanying notes form an integral part of these consolidated financial statements.

Çalık Enerji Sanayi ve Ticaret Anonim Şirketi and its Subsidiaries

Notes to Consolidated Financial Statements
As at and for the Year Ended 31 December 2019
(Amounts expressed in thousands of United States Dollar ("US Dollar") unless otherwise stated.)

1. Reporting entity

Çalık Enerji Sanayi ve Ticaret Anonim Şirketi ("Çalık Enerji" or "the Company") was established in 1998 in Turkey for the purpose of engaging in the operation, exploration and production of natural gas and petroleum resources, shipment and selling of such resources to the international markets, production, distribution and retail sale of electricity energy or investing in the entities engaging in such operations. Çalık Enerji has eleven branches, namely, Çalık Enerji Turkmenistan, Çalık Enerji Georgia, Çalık Enerji Uzbekistan, Çalık Enerji Libya, Çalık Enerji Iraq, Çalık Uzbekistan (TRC), Çalık Enerji Uzbekistan (NAV2), Çalık Enerji Malawi, Kızılırmak Enerji Elektrik, Çalık Enerji Uzbekistan Taşkent PE and Çalık Enerji Afganistan Branch.

Çalık Enerji is managed and owned by Çalık Holding Anonim Şirketi ("Çalık Holding"), the parent company of the Group, holding 95.42% of all Çalık Enerji's shares. As at 31 December 2019, the principal shareholders and their respective shareholding rates in Çalık Enerji are stated in Note 22. Çalık Enerji was established at its registered office address, Büyükdere Caddesi No: 163/A Zincirlikuyu, Istanbul.

As at 31 December 2019, Çalık Enerji has 34 (31 December 2018: 29) subsidiaries ("the Subsidiaries") and 4 (31 December 2018: 4) joint ventures ("the Joint Ventures").The consolidated financial statements of the Group as at and for the year ended 31 December 2019 comprise Çalık Enerji, its subsidiaries and its interests in the joint ventures. As at 31 December 2019, the number of employees of the Group is 1.463 (31 December 2018: 2.952). The subsidiaries and the joint ventures included in the consolidation of Çalık Enerji, their country of incorporation and nature of business are as follows:

Company name	Type of partnership	Country
Adacami Enerji Elektrik Üretim Sanayi ve Ticaret A.Ş.	Subsidiary	Turkey
Akılcı Bilişim Hizmetleri ve Danışmanlık A.Ş. (*)	Subsidiary	Turkey
Ant Enerji Sanayi ve Ticaret Limited Şirketi	Subsidiary	Turkey
Atayurt İnşaat A.Ş.	Subsidiary	Turkey
Çalık Yenilenebilir Enerji A.Ş.	Subsidiary	Turkey
Çalık Elektrik Dağıtım A.Ş.	Subsidiary	Turkey
Çalık Enerji Dubai FZE	Subsidiary	UAE – Dubai
Calik Enerji Swiss AG	Subsidiary	Switzerland
Çalık Georgia LLC (*)	Subsidiary	Georgia
Çalık Güneş Enerjisi Üretim A.Ş.	Subsidiary	Turkey
Çalık Limak Adi Ortaklığı	Joint venture	Turkey
Çalık NTF Elektrik Üretim ve Madencilik A.Ş.	Subsidiary	Turkey
Çalık Rüzgar Enerjisi Elektrik Üretim Limited Şirketi	Subsidiary	Turkey
Çedaş Elektrik Dağıtım Yatırımları A.Ş.	Subsidiary	Turkey
ÇL Enerji Üretim ve İnşaat Anonim Şirketi (*)	Subsidiary	Turkey
Demircili Rüzgar Enerjisi Elektrik Üretim A.Ş.	Subsidiary	Turkey
Doğu Aras Enerji Yatırımları A.Ş.	Joint venture	Turkey
In Liquidation Enerji Sabz Arman Pars A.Ş. (*)	Subsidiary	Iran
In Liquidation Enerji Sabz Pouya Pars A.Ş. (*)	Subsidiary	Iran
In Liquidation Hamerz Green Energy (*)	Subsidiary	Iran
JSC Calik Georgia Wind	Subsidiary	Georgia
Kızılırmak Enerji Elektrik A.Ş.	Subsidiary	Turkey
Kosova Çalık Limak Energy SH.A.	Joint venture	Kosovo
LC Electricity Supply and Trading d.o.o.	Joint venture	Serbia
In Liquidation Mayestan Green Energy (*)	Subsidiary	Iran
Momentum Enerji Elektrik Üretim Sanayi ve Ticaret A.Ş.	Subsidiary	Turkey
Olimpos Solar Enerji Üretim A.Ş. (*)	Subsidiary	Turkey
Onyx Trading Innovation FZE	Subsidiary	UAE – Dubai
Pasifik Solar Enerji Üretim A.Ş. (*)	Subsidiary	Turkey
Saudi Jalik Energy Company (*)	Subsidiary	Saudi Arabia
Technological Energy N.V.	Subsidiary	Netherlands
Technovision Mühendislik Danışmanlık ve Dış Ticaret A.Ş.	Subsidiary	Turkey
Türkmen'in Altın Asrı Elektrik Enerjisi Toptan Satış A.Ş.	Subsidiary	Turkey
Yeşilçay Enerji Elektrik Üretim Sanayi ve Ticaret A.Ş.	Subsidiary	Turkey
Yeşilırmak Elektrik Dağıtım A.Ş.	Subsidiary	Turkey
Yeşilırmak Elektrik Perakende Satış A.Ş.	Subsidiary	Turkey
Taşkent Merkez Park Gayrimenkul Yatırım A.Ş.	Subsidiary	Turkey
Uztur Investment and Development Limited (*)	Subsidiary	Uzbekistan

Çalık Enerji Sanayi ve Ticaret Anonim Şirketi and its Subsidiaries

Notes to Consolidated Financial Statements
As at and for the Year Ended 31 December 2019
(Amounts expressed in thousands of United States Dollar ("US Dollar") unless otherwise stated.)

1. Reporting entity (continued)

(*)Akılcı Bilişim Hizmetleri ve Danışmanlık A.Ş., Çalık Georgia LLC, Enerji Sabz Pouya Pars A.Ş., Energy Sabz Arman Pars, Hamerz Green Energy, Saudi Jalik Energy Company, ÇL Enerji Üretim ve İnşaat Anonim Şirketi, Uztur Investment and Development Limited, Olimpos Solar Enerji Üretim A.Ş., Pasifik Solar Enerji Üretim A.Ş. and Mayestan Green Energy, subsidiaries of the Group, are in start up phase or non operating and are not consolidated due to the insignificance of their financial impact on the consolidated financial statements as at and for the period ended 31 December 2019.

Adacami Enerji Elektrik Üretim Sanayi Ve Ticaret A.Ş ("Adacami Enerji")

Adacami Enerji was established in December 2009, for the purpose of renting and operating electricity facility and selling electricity.

Akılcı Bilişim Hizmetleri ve Danışmanlık A.Ş ("Akılcı Bilişim")

Akılcı Bilişim, was established on 2 May 2018 in Istanbul. As at the reporting date, the Company is in start-up phase and non operating.

Ant Enerji Sanayi ve Ticaret Limited Şirketi ("Ant Enerji")

Ant Enerji was established in 2006, in Istanbul for the purpose of marketing, selling and distribution of energy.

Atayurt İnşaat A.Ş. ("Atayurt İnşaat")

Atayurt İnşaat was established in 2009 for the purpose of building and operating energy power plants and providing operational and maintenance services to power plants.

Çalık Yenilenebilir Enerji A.Ş. ("Çalık Yenilenebilir Enerji")

Çalık Solar Enerji was established in 2012 and main operation of the Çalık Solar Enerji is to develop and construct all kinds of solar energy power plants.

Çalık Elektrik Dağıtım A.Ş. ("ÇEDAŞ")

ÇEDAŞ was established in 2010 according to legislations of Energy Market Regulatory Authority to distribute and sale of electricity and to invest in companies operating in these businesses.

Çalık Enerji Dubai FZE ("Çalık Enerji Dubai")

Çalık Enerji Dubai was incorporated in Jebel Ali Free Zone.

ÇL Enerji Üretim ve İnşaat Anonim Şirketi ("ÇL Enerji")

ÇL Enerji was established in Turkey in 2019 for the purpose of operating electricity facility and selling electricity.

Çalık Enerji Swiss AG ("Calik Swiss")

Calik Swiss was established on 27 April 2018 in Switzerland for the purpose of the acquisition management and use of concessions other rights as well as construction and maintenance power plants and to provide services in the development of other group companies operating in the energy sector, especially in the electricity sector and in finding funding sources.

Çalık Güneş Enerjisi Üretim A.Ş. ("Çalık Güneş")

Çalık Güneş Enerjisi Üretim A.Ş. was established by Çalık Holding and consolidate to Çalık Enerji in 2019 after its shares' transferred to the Çalık Enerji.

Çalık Georgia LLC ("Çalık Georgia")

Çalık Georgia was established in 2015 in Tbilisi for the purpose of engineering, procurement and constructions of hydroelectric power plant and trade of the electricity produced in Georgia. As of the reporting date the company is in start-up phase and non operating.

Çalık Enerji Sanayi ve Ticaret Anonim Şirketi and its Subsidiaries

Notes to Consolidated Financial Statements
As at and for the Year Ended 31 December 2019
(Amounts expressed in thousands of United States Dollar ("US Dollar") unless otherwise stated.)

1. Reporting entity (continued)

Çalık Limak Adi Ortaklığı

Çalık Limak Adi Ortaklığı, was established in 2013 as a joint venture of ÇEDAŞ and Limak Yatırım Enerji Üretim İşletme Hizmetleri ve İnşaat A.Ş. ("Limak Yatırım"), in Istanbul for the purpose of supplying all kind of technical equipments to Kosovo Electricity Distribution and Supply Company ISC fully owned by Kosovo Çalık Limak Enerji which is also joint venture of Çalık Enerji and Limak Yatırım.

Çalık NTF Elektrik Üretim ve Madencilik A.Ş. ("Çalık NTF")

Çalık NTF was established in 2006, in İstanbul for the purpose of establishing, operating and renting power generation plants.

Çalık Rüzgar Enerjisi Elektrik Üretim Limited Şirketi ("Çalık Rüzgar")

Çalık Rüzgar was established for the purpose of building and operating of electricity power plants, production, selling and marketing of electricity.

Çedaş Elektrik Dağıtım Yatırımları A.Ş. ("ÇED")

ÇED was founded in accordance with the energy market regulations for the purpose of establishing and participating to the companies that are engaged in distribution, retail and wholesale of electricity energy and/or capacity, assigning management of these established and participated companies, to provide consultancy services on technical, financial, information processing and human resources management issues and to make industrial and commercial investments through these companies.

Demircili Rüzgar Enerjisi Elektrik Üretim A.Ş. ("Demircili Rüzgar")

Demircili Rüzgar was established on 23 February 2018 in Istanbul, for the purpose of establishing electric production facility, operating, renting it and producing electric energy and / or selling it to customers.

Doğu Aras Enerji Yatırımları A.Ş. ("Doğu Aras")

Doğu Aras was founded in accordance with the energy market regulations as a joint venture with a joint agreement of ÇED and Kiler Alışveriş Hizmetleri Gıda Sanayi Ticaret A.Ş. ("Kiler Alışveriş") on 5 May 2013 with the participation of these two companies by 50% and 50%, respectively, for the purpose of establishing and participating to the companies that are engaged in distribution, retail and wholesale of electricity energy and/or capacity, assigning management of these established and participated companies, providing consultancy services on technical, financial, information processing and human resources management issues and making industrial and commercial investments through this companies.

On 28 June 2013, Doğu Aras purchased all share of Aras Elektrik Dağıtım A.Ş. ("EDAŞ") and Aras Elektrik Perakende Satış A.Ş. ("EPAŞ") which were state owned companies operating in electricity distribution and procurement in cities Kars, Ardahan, Iğdır, Ercincan, Ağrı, Bayburt and Erzurum within the privatization.

In Liquidation Enerji Sabz Pouya Pars A.Ş. ("Enerji Sabz Pouya Pars")

Enerji Sabz Pouya Pars was established in 2018 in Iran for the purpose of conducting commercial and economic activities including marketing, exporting and importing eligible trading goods such as raw materials, industrial parts and tools.

In Liquidation Enerji Sabz Arman Pars A.Ş. ("Sabz Arman Pars A.Ş.")

Enerji Sabz Arman Pars A.Ş. ("Enerji Sabz Arman Pars") was established in 2018 in Iran. The company was established to conduct all the commercial product trading of commercial and economic operations such as importing and exporting raw materials, industrial parts and equipment.

In Liquidation Hamerz Green Energy ("Hamerz Green Energy")

Hamerz Green Energy was established in 2016 in Iran for the purpose of conducting commercial and economic activities including marketing, exporting and importing eligible trading goods such as raw materials, industrial parts and tools.

Çalık Enerji Sanayi ve Ticaret Anonim Şirketi and its Subsidiaries

Notes to Consolidated Financial Statements
As at and for the Year Ended 31 December 2019
(Amounts expressed in thousands of United States Dollar ("US Dollar") unless otherwise stated.)

1. Reporting entity (continued)

JSC Çalık Georgia Wind ("JSC Georgia")

JSC Georgia was established in 2015 in Tbilisi for the purpose of developing energy infrastructure and the sponsoring of development of solar power plant and wind power plant projects through financing, construction and long term operation of power plants.

Kızılırmak Enerji Elektrik A.Ş. ("Kızılırmak")

Kızılırmak was established in 2005, in Istanbul for the purpose of importing, exporting, distributing and operating all kinds of natural gas, crude oil and derivatives of these products.

Kosova Çalık Limak Energy SH.A. ("KÇLE")

KÇLE was established as a joint venture with a joint agreement of Çalık Enerji, ÇEDAŞ and Limak Yatırım on 17 September 2012 with the participation these three companies by 25%, 25% and 50%, respectively, in the share capital of KÇLE. In 2015, shares of KÇLE representing 25% of all shares, held by ÇEDAŞ, are transferred to Çalık Enerji.

On 8 May 2013, KÇLE purchased all shares of state-owned enterprise namely "Kompania Per Distribuim Dhe Fumizim Me Energji Elektrike SH.A" ("KEDS") which is operating in electricity distribution and procurement of electricity in Kosovo.

LC Electricity Supply and Trading d.o.o ("LC Electricity")

LC Electricity was founded in Serbia in 2014 as a joint venture with a joint agreement between Türkmen'in Altın Asrı Elektrik Enerjisi Toptan Satış A.Ş. ("Türkmen Elektrik") and Limak Yatırım with the participation of these two companies equally by 50%. The purpose of LC Electricity is trading electricity and sales/purchases of goods and services in respect of these operations.

In Liquidation Mayestan Green Energy ("Mayestan Green Energy")

Mayestan Clean Energy was established in 2016 in Iran for the purpose of conducting commercial and economic activities including marketing, exporting and importing eligible trading goods such as raw materials, industrial parts and tools.

Momentum Enerji Elektrik Üretim Sanayi ve Ticaret A.Ş. ("Momentum Enerji")

Momentum Enerji was established in 2008 for the purpose of building and operating of electricity power plant, producing, selling and marketing of electricity.

Olimpos Solar Enerji Üretim A.Ş. ("Olimpos Solar")

Olimpos Solar was established for the purpose of building and operating of electricity power plants, production, selling and marketing of electricity.

Onyx Trading Innovation FZE ("Onyx Trading Innovation FZE")

Onyx Trading Innovation FZE was established in 2016 in Dubai.

Pasifik Solar Enerji Üretim A.Ş. ("Pasifik Solar")

Pasifik Solar was established for the purpose of building and operating of electricity power plants, production, selling and marketing of electricity.

Technological Energy N.V. (Technological N.V.)

Technological N.V. was established on 8 June 2016 in the Netherlands. As at the reporting date, the Company is non operating.

Technovision Mühendislik, Danışmanlık ve Dış Ticaret Ltd. Şti. ("Technovision")

Technovision was established in 1994, in Ankara to provide machinery and civil engineering and consulting services. 90,00% of the Company's shares were acquired by Çalık Enerji in 2015 for the purpose of providing engineering and consultancy services to Group entities.

Çalık Enerji Sanayi ve Ticaret Anonim Şirketi and its Subsidiaries

Notes to Consolidated Financial Statements
As at and for the Year Ended 31 December 2019
(Amounts expressed in thousands of United States Dollar ("US Dollar") unless otherwise stated.)

1. Reporting entity (continued)

Türkmen'in Altın Asrı Elektrik Enerjisi Toptan Satış A.Ş. ("Türkmen Elektrik")

Türkmen Elektrik was established in 2000, in Istanbul for the purpose of distributing and selling electricity.

Uztur Investment and Development Limited ("Uztur")

The company was established in 2019 in Uzbekistan to maintaion construction projects.

Yeşilçay Enerji Elektrik Üretim Sanayi ve Ticaret A.Ş. ("Yeşilçay Enerji")

Yeşilçay Enerji was established in 2008 for the purpose of building and operating of electricity power plant, producing, selling and marketing of electricity. Yeşilçay Enerji also engages in exploration and production of mineral ore.

Yeşilırmak Elektrik Dağıtım A.Ş. ("YEDAŞ")

YEDAŞ was taken over by the Group in 2010 for 30 years with the scope of privatisation in order to distribute electricity energy in Samsun, Ordu, Amasya, Çorum and Sinop.

In accordance with the 3rd clause of 4628 numbered Energy Markets Code, electricity distribution companies must separate its distribution and retail operations from each other until 1 January 2013. In this regard, YEDAŞ that carried out the electricity distribution and retail sales operations in Samsun, Ordu, Amasya, Çorum and Sinop regions, unbundled its distribution and retail sales operations on 31 December 2012 and YEPAŞ has started its operations from 1 January 2013.

Yeşilırmak Elektrik Perakende Satış A.Ş. ("YEPAŞ")

In accordance with the 3 rd clause of 4628 numbered Energy Markets Code, electricity distribution companies must separate its distribution and retail operations from each other until 1 January 2013. In this regard, YEDAŞ which was engaged in distribution and retail sale of electricity in Samsun, Ordu, Çorum, Amasya and Sinop regions, unbundled its distribution and retail operations on 31 December 2012. YEPAŞ was founded for retail sales of electricity and electricity related products by partial demerger of YEDAŞ as of 1 January 2013.

Taşkent Merkez Park Gayrimenkul Yatırım Ortaklığı ("Taşkent Merkez")

Taşkent Merkez Park Gayrimenkul Yatırım Ortaklığı was established in 2019 and its main operation subject is building residence.

Saudi Jalik Energy Company ("Saudi Jalik")

Saudi Jalik Energy Company was established in 2019 to operate building and construction projects.

2. Basis of preparation

2.1 Statement of compliance

The Group's entities operating in Turkey keep their books of account in Turkish Lira ("TL") in accordance with the accounting principles per Turkish Uniform Chart of Accounts, the Turkish Commercial Code and Tax legislations.

The Group's foreign entities keep their books of account and prepare their statutory financial statements in accordance with the related legislation and generally accepted accounting principles applicable in the countries they operate.

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS").

The general assembly and the other regulatory bodies have the power to amend the consolidated financial statements after their issue.

Çalık Enerji Sanayi ve Ticaret Anonim Şirketi and its Subsidiaries

Notes to Consolidated Financial Statements
As at and for the Year Ended 31 December 2019
(Amounts expressed in thousands of United States Dollar ("US Dollar") unless otherwise stated.)

2. Basis of preparation (continued)

2.2 Basis of measurement

The consolidated financial statements have been prepared on the historical cost basis and for the Group's Turkish entities as adjusted for the effects of inflation that lasted by 31 December 2004, except for the derivative financial instruments that are measured at fair value.

2.3 Functional and presentation currency

The Company's functional currency was Turkish Lira (TL) until 30 June 2018. Due to changes in sales strategies and dividend policies as of 1 July 2018, the US Dollar began to reflect the economic bases of situations and events that are significant to Çalık Enerji. Therefore the functional currency of the Company has been changed to US Dollars as of 1 July 2018 in accordance with IAS 21 - "Effects of Changes in Foreign Exchange Rates". Equity items are translated to US Dollars at exchange rates at the dates of the transactions. All assets and liabilities are retranslated to US Dollars at the exchange rate at the reporting date. All profit or loss and other comprehensive income items are retranslated to US Dollars at average exchange rates of the corresponding year.

The exchange rates against TL used by the Group at 31 December 2019 and 31 December 2018 are as follows:

	31 December 2019	31 December 2018
US Dollar	5,9402	5,2609
Euro	6,6506	6,0280
British Sterling	7,7765	6,6528
Iraqi Dinar	0,0050	0,0044
Georgian Lari	1,9881	1,9827
Libyan Dinarı	4,3379	3.7543
Turkmenistan Manat	1,7447	1,5058
Uzbekistani Som	0,0006	0,0006

In accordance with IAS 21 "The Effect of Changes in Foreign Exchange Rates", the Group management has changed the functional currencies of Çalık Enerji Turkmenistan Branch and Çalık Enerji Uzbekistan Representative Office, from Turkmenistan Manat and Uzbekistani Som, respectively to US dollar, effective from the reporting periods as of 1 July 2017. The Group has started new engineering, procurement and construction projects in Turkmenistan and Uzbekistan and carries out these projects through its branches in these countries. Upon the signing of the new contracts, collections from contract revenues are mainly denominated in US Dollars while significant portion of the costs comprise expenditures in US Dollars.

In 2017, the effect of the branches' own currencies, Turkmenistan Manat and Uzbekistani Som, decreased in reflecting the basic economic environment of the Group in terms of market and operational conditions. Due to aforementioned reasons functional currencies of these branches were changed to US Dollars, effective from 1 July 2017.

Çalık Enerji Sanayi ve Ticaret Anonim Şirketi and its Subsidiaries

Notes to Consolidated Financial Statements
As at and for the Year Ended 31 December 2019
(Amounts expressed in thousands of United States Dollar ("US Dollar") unless otherwise stated.)

2. Basis of preparation (continued)

2.4 Use of estimates and judgments

The preparation of the consolidated financial statements in conformity with IFRSs requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised and in any future periods affected.

Information about significant areas at estimation uncertainty and critical judgment in applying accounting policies that have the most significant effect on the amounts recognised in the consolidated financial statements are described in the following notes:

Note 8 – Allowance for trade receivables: Allowances for the trade and other receivables are based on the Group management's assessment on the amount, historical performance and general economic environment. The Group monitors recoverability of its trade receivables periodically by considering the collection ratios in the previous years and recognises allowance for doubtful receivables for probable losses. Subsequently, if the economic conditions, collection trends and other significant sectorial trends accrued worse than the Group management's estimates, the allowance for doubtful receivables in the consolidated financial statements might not compensate the actual doubtful receivables.

Note 16 – Ongoing construction and contracting works: When it is probable that total contract costs will exceed total contract revenue, the expected loss is recognised as an expense immediately. Revenue measurements are based on estimates that are revised as events and uncertainties are resolved. Cost and revenues may be revised based on variations to the original contract, penalties on delays, cost escalation clauses and other similar items. These revisions are recognised in the consolidated financial statements as they are incurred. Revenue incentive are recognised as revenue to the extent that the amount can be measured reliably and its receipt is considered probable.

When the outcome of a construction contract cannot be estimated reliably, revenue is recognised to the extent of costs incurred that are probable of recovery. Costs are recognised as an expense as they are incurred.

Note 13 and Note 14 – Useful lives of property, plant and equipment and other intangible assets: The Group management estimates the useful lives of property, plant and equipment and intangible assets through the experience of its technical team based on the management strategies and future marketing plans.

Note 19 – Provision for litigations: Group management estimates and recognizes provision for ongoing lawsuits by estimating the relevant cash outflows.

Note 28 – Determination of fair value: Estimates are made for using observable and non-observable market data in determination of fair values.

Note 19 – Reserve for retirement pay is determined by using actuarial assumptions (discount rates, future salary increases and employee turnover rates).

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2. Basis of preparation (continued)

2.5 Comperative information and adjustment of prior period financial statements

Material changes in accounting policies or material errors are corrected, retrospectively by restating the prior period financial statements. The effect of changes in accounting estimates affecting the current period is recognized in the current period; the effect of changes in accounting estimates affecting current and future periods is recognized in the current and future periods. As of 1 July 2018, the Group has changed the functional currency from TL to USD. It is identified that in the Group's consolidated financial statements as of 31 December 2018, the Company's paid in capital account was incorrectly translated to USD. In addition, minority interest in the Group's consolidated financial statements as of 31 December 2018.

The Group has made some reclassifications in the year-end financial statements as explained below:

The effect of IFRS 9 amounting to KUSD 3.413 which was previously presented at "Other expense from operating activities" has been reclassified to "IFRS 9 Impairment gains (cancellations) and cancellation of impairment losses".

The receivables from service concession agreements related to ÇEDAŞ subsidiary amounting to KUSD 329.396 and which was previously presented at "Current trade receivables" and "Non current trade receivables has been reclassified amounting to KUSD 70.140 as "Current service concession receivables" and amounting to KUSD 259.256 as "Non current service concession receivables".

The receivables from customer contracts amounting to KUSD 2.453 and which was previously presented at "Trade receivables" has been reclassified to "Receivables from customer contracts".

The payables from customer contracts amounting to KUSD 72.378 and which was previously presented at "Deferred revenue" has been reclassified to "Payables from customer contracts".

The interest income amounting to KUSD 4.315 and which was previously presented at "Other income from operating activities" has been reclassified to "Finance income".

The income from operating activities amounting to KUSD 84.820 and which was previously presented at "Other income from operating activities" has been reclassified to "Revenue" related to income arising from IFRIC 12 related to Çedaş subsidiary.

The severance liability of the employees whose severance obligation is not calculated is calculated. As a result of the calculation amounting to KUSD 1.198 has been reflected to the general administrative expenses, and revenue has been written to the same amount of revenue as the severance pay can be taken back via tariff. This reclassification subject related to Çedaş subsidiary.

In addition to restatements and recllassifications above the Group has reclassified the foreign currency translation difference amounting to KUSD 77.204 which was previously presented at "Adjustments to reconcile cash flow generated from operating activities" to "Effect of foreign currency translation difference in cash and cash equivalents".

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2. Basis of preparation (continued)

The effects of restatements as of December 31, 2018 are as below:

	Restated	Previously Reported	Restatement Effect
	31 December 2018	**31 December 2018**	**31 December 2018**
Current assets			
Cash and cash equivalents	*35.798*	*35.798*	-
Restricted amounts	*27.244*	*27.244*	-
Trade receivables	*256.186*	*411.734*	*(155.548)*
- Due from related parties	*102.398*	*102.398*	-
- Due from third parties	*153.788*	*309.336*	*(155.548)*
Other receivables	*68.359*	*68.359*	-
- Due from related parties	*60.198*	*60.198*	-
- Due from third parties	*8.161*	*8.161*	-
Receivables from customer contracts	12.880	-	12.880
- Contractual assets arising from ongoing construction and contracting works	12.880	-	12.880
Service concession receivables	70.140	-	70.140
Inventories	6.243	6.243	-
Prepayments	38.796	38.796	-
Current tax assets	49	49	-
Other current assets	17.192	17.192	-
Total current assets	**532.887**	**605.415**	**(72.528)**

	Restated	Previously Reported	Restatement Effect
	31 December 2018	**31 December 2018**	**31 December 2018**
Non-current assets			
Trade receivables	*117.225*	*303.953*	*(186.728)*
- Due from third parties	*47.742*	*47.742*	-
- Due from related parties	*69.483*	*256.211*	*(186.728)*
Other receivables	*144.105*	*142.907*	*1.198*
- Due from related parties	*139.163*	*139.163*	-
- Due from third parties	*4.942*	*3.744*	*1.198*
Service concession receivables	*259.256*	-	*259.256*
Financial investments	*22.411*	*22.411*	-
Equity accounted investees	125.179	125.179	-
Property, plant and equipment	108.826	108.826	-
Intangible assets	68.502	68.502	-
Prepayments	2.028	2.028	-
Deferred tax assets	3.708	3.708	-
Total non-current assets	**851.240**	**777.514**	**73.726**
Total assets	**1.384.127**	**1.382.929**	**1.198**

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2. Basis of preparation (continued)

	Restated	Previously Reported	Restatement Effect
	31 December 2018	**31 December 2018**	**31 December 2018**
Current liabilities			
Short term borrowings	32.436	32.436	-
Short term portion of long term borrowings	91.825	91.825	-
Trade payables	148.290	148.290	-
- Due to related parties	3.248	3.248	-
- Due to third parties	145.042	145.042	-
Payables related to employee benefits	4.966	4.966	-
Other payables	28.395	28.395	-
- Due to related parties	22.475	22.475	-
- Due to third parties	5.920	5.920	-
Payables from customer contracts	72.378	-	72.378
-Contractual liabilities arising from ongoing construction and contracting works	72.378	-	72.378
Deferred revenue	68.200	140.578	(72.378)
Current tax liabilities	2	2	-
Short term provisions	9.552	9.552	-
- Short term employee benefits	1.508	1.508	-
- Other short term provisions	8.044	8.044	-
Other current liabilities	24.820	24.820	-
Total current liabilities	**480.864**	**480.864**	**-**

	Restated	Previously Reported	Restatement Effect
	31 December 2018	**31 December 2018**	**31 December 2018**
Non current liabilities			
Long term borrowings	173.967	173.967	-
Other payables	42.869	42.869	-
- Due to related parties	11	11	-
- Due to third parties	42.858	42.858	-
Long term provisions	2.688	1.490	1.198
- Long term employee benefits	2.688	1.490	1.198
Deferred tax liabilities	23.519	23.519	-
Total non-current liabilities	**243.043**	**241.845**	1.198
Total liabilities	**723.907**	**722.709**	1.198
EQUITY			
Paid-in capital	79.975	58.570	21.405
Items that will or may be reclassified to profit or loss	(90.201)	(127.134)	36.933
Restricted reserves	177.715	177.715	-
Retained earnings	275.437	275.437	-
Net profit for the year	213.506	213.506	-
Total equity attributable to owners of the Company	**656.432**	**598.094**	**58.338**
Total non controlling interests	**3.788**	**62.126**	**(58.338)**
Total equity	**660.220**	**660.220**	**-**
Total equity and liabilities	**1.384.127**	**1.382.929**	**1.198**

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2. Basis of preparation (continued)

	Restated	Previously Reported	Restatement Effect
	31 December 2018	**31 December 2018**	**31 December 2018**
Revenue	1.109.929	1.026.857	83.072
Cost of sales	(783.528)	(783.528)	-
Gross profit	**326.401**	**243.329**	**83.072**
Administrative expenses	(38.980)	(37.782)	(1.198)
Selling, marketing and distribution expenses	(18.904)	(18.904)	-
Research and development expenses	(4.523)	(4.523)	-
Share of profit of equity accounted investees	28.779	28.779	-
Other income from operating activities	168.196	258.912	(90.716)
Other expense from operating activities	(184.096)	(192.036)	7.939
Operating profit	**276.873**	**277.775**	**(902)**
Income from investing activities	658	658	-
Expenses from investing activities	(766)	(766)	-
IFRS 9 Impairment gains (cancellations) and cancellation of impairment losses	(3.413)	-	(3.413)
Operating profit before finance cost	**273.352**	**277.667**	**(4.315)**
Finance income	43.121	38.806	4.315
Finance costs	(77.101)	(77.101)	-
Net finance costs	**(33.980)**	**(38.295)**	**4.315**
Profit before tax	**239.372**	**239.372**	**-**
Tax expense			
Current tax expense	(12.933)	(12.933)	**-**
Deferred tax benefit/(expense)	(12.842)	(12.842)	**-**
Profit for the year	**213.597**	**213.597**	**-**

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3. Significant accounting policies

The accounting policies set out below have been applied consistently to all periods presented in these consolidated financial statements and have been applied consistently by the Group.

3.1 Basis of consolidation

The accompanying consolidated financial statements include the accounts of the parent company, Çalık Enerji, its subsidiaries and joint ventures on the basis set out in sections below. The financial statements of the entities included in the consolidation have been prepared as at the date of the consolidated financial statements.

i) Business combinations (expect acquisitions from entities under common control)

Business combinations are accounted for using the acquisition method as at the acquisition date, which is the date on which control is transferred to the Group.

In assessing control, the Group takes into consideration potential voting rights that are currently exercisable.

The Group measures goodwill at the acquisition date as:

- the fair value of the consideration transferred; plus
- the recognised amount of any non-controlling interests in the acquiree; plus
- if the business combination is achieved in stages, the fair value of the pre-existing equity interest in the acquiree; less
- the net recognised amount (generally fair value) of the identifiable assets acquired and liabilities assumed.

When the result of implementation is negative, a bargain purchase gain is recognised in profit or loss.

The consideration transferred does not include amounts related to the settlement of pre-existing relationships. Such amounts generally are recognised in profit or loss.

Transactions costs, other than those associated with the issue of debt or equity securities, that the Group incurs in connection with a business combination are expensed as incurred

Any contingent consideration payable is measured at fair value at the acquisition date. If the contingent consideration is classified as equity, it is not remeasured and settlement is accounted for within equity. Otherwise, subsequent changes to the fair value of the contingent consideration are recognised in profit or loss.

ii) Subsidiaries

Subsidiaries are entities controlled by the Group. The Group controls a business when exposure, or rights, to variable returns due to its involvement with the investee and the ability to use its power over the investee to affect the amount of the investor's returns. The financial statements of subsidiaries are included in the consolidated financial statements from the date that control commences until the date that control ceases.

The accounting policies of subsidiaries have been changed when necessary to comply with the policies adopted by the Group.

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3. Significant accounting policies (continued)

iii) Non-controlling interests

The Group measures any non-controlling interests in the acquiree at their proportionate share of the acquiree's identifiable net assets.

Changes in the Group's interest in a subsidiary that do not result in a loss of control are accounted for as transactions with owners in their capacity as owners. Adjustments to non-controlling interests are based on a proportionate amount of the net assets of the subsidiary. No adjustments are made to goodwill and no gain or loss is recognised in profit or loss.

iv) Loss of control

When the Group losses the control over the subsidiary, the Group derecognises the assets and liabilities of the subsidiary, any non controlling interests and the other components of equity related to the subsidiary. Any surplus or deficit arising on the loss of control is recognised in profit or loss. If the Group retains any interest in the previous subsidiary, then such interest is measured at fair value at the date that control is lost.

v) Acquisitions from entities under common control

Business combinations arising from transfers of interests in entities that are under the control of the shareholder that controls the Group are accounted for as if the acquisition had occurred at the beginning of the earliest comparative year presented or, if later, at the date that common control was established. The assets and liabilities acquired are recognised at the carrying amounts recognised previously in the Group controlling shareholder's consolidated financial statements. The components of equity of the acquired entities are added to the same components within the Group equity and any gain/loss arising is recognised directly in equity.

vi) Joint arrangements

Joint arrangements are aggreements of which the Group has joint control, established by contracts requiring unanimous consent for decisions about the activities that significantly affect the arrangements' returns. They are classified and accounted for as follows:

- Joint operation – when the Group has rights to the assets, and obligations for the liabilities, relating to an arrangement, it accounts for each of its assets, liabilities and transactions, including its share of those held or incurred jointly, in relation to the joint operation.
- Joint venture – when the Group has rights only to the net assets of the arrangements, it accounts for its interest using the equity method.

The accompanying consolidated financial statements include the Group's share of the profit or loss and other comprehensive income of equity-accounted investees, after adjustments to align the accounting policies with those of the Group, from the date that significant influence commences until the date that significant influence ceases.

When the Group's share of losses exceeds its interest in an equity-accounted investee, the carrying amount of the investment, including any long-term interests that form part thereof, is reduced to zero, and the recognition of further losses is discontinued except to the extent that the Group has an obligation or has made payments on behalf of the investee.

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3. Significant accounting policies (continued)

vii) Transactions eliminated on consolidation

Intra-group balances and transactions, and any unrealised income and expenses arising from intra-group transactions, are eliminated in preparing the consolidated financial statements. Unrealised gains arising from transactions with equity accounted investees are eliminated against the investment to the extent of Group's interest in the investee.

Unrealised losses are eliminated in the same way as unrealised gains, but only to the extent that there is no evidence of impairment. Carrying value of shares owned by the Group and dividends arising from these shares has been eliminated in equity and profit or loss statement's accounts.

In consolidation of operating results and financial positions of subsidiaries whose functional currency is other than TL, main consolidation transactions are made such as elimination of related party balances and transactions. But, a-monetary asset (or liability) of related parties regardless of short-term or long-term (except for monetary items which are part of net investment of the Group in its subsidiaries whose functional currency is other than TL) can not be eliminated with related party liability (or related party asset) without presenting results of fluctuation of foreign currencies in consolidated financial statements. Because, a monetary item provides obligation of translation of any currency to other currency and makes the Group exposed to gain or losses arising from fluctuation of foreign currencies. Correspondingly, these kind of foreign exchange differences are recognised in profit or loss of consolidated financial statements of the Group.

3.2 Foreign currency

i) Foreign currency transactions

Transactions in foreign currencies are translated to the respective functional currencies of Group entities at exchange rates at the dates of the transactions.

Monetary assets and liabilities denominated in foreign currencies at the reporting date are retranslated to the functional currency at the exchange rate at that date. Non-monetary items in a foreign currency that are measured in terms of historical cost are translated using the exchange rate at the date of the transaction and will not be subject to translation anymore.

Foreign currency differences arising from retranslate, recognized in profit or loss, except for exchange rate differences, which arise from the recycle in the following items and recorded in other comprehensive income.

- available-for-sale equity instruments (except for impairment, the foreign exchange differences recognized in other comprehensive income are reclassified to profit or loss);
- financial liabilities entered in order to hedge net investments in foreign operations recorded as other comprehensive income
- cash flow hedging instruments to the extent that hedging is effective

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3. Significant accounting policies (continued)

ii) Foreign operations

The assets and liabilities of foreign operations, including goodwill and fair value adjustments arising on acquisition, are translated to functional currency of the Company US Dollars at exchange rates at the reporting date. The income and expenses of foreign operations are translated to US Dollars at average exchange rates at the dates of the transaction.

Foreign currency differences are recognised in other comprehensive income and presented in the foreign currency translation reserve (translation reserve) in equity. However, if the foreign operation is a non-wholly-owned subsidiary, then the relevant proportion of the translation difference is allocated to the non-controlling interests. When a foreign operation is disposed off such that control, significant influence or joint control is lost, the cumulative amount in the translation reserve related to that foreign operation is reclassified to profit or loss as part of the gain or loss on disposal. When the Group disposes off only part of its interest in a subsidiary that includes a foreign operation while retaining control, the relevant proportion of the cumulative amount is reattributed to non-controlling interests. When the Group disposes off only part of its investment in an associate or joint venture that includes a foreign operation while retaining significant influence or joint control, the relevant proportion of the cumulative amount is reclassified to profit or loss.

When the settlement of a monetary item receivable from or payable to a foreign operation is neither planned nor likely in the foreseeable future, foreign exchange gains and losses arising from such a monetary item are considered to form part of a net investment in a foreign operation and are recognised in other comprehensive income and presented within equity in the translation reserve.

3.3 Financial instruments

i) Recognition and initial measurement

Trade receivables are initially recognized when they are originated. All other financial assets and financial liabilities are initially recognized when the Group becomes a party to the contractual provisions of the instrument.

A financial asset (unless it is a trade receivable without a significant financing component) or financial liability is initially measured at fair value plus, for an item not at FVTPL, transaction costs that are directly attributable to its acquisition or issue. A trade receivable without a significant financing component is initially measured at the transaction price.

ii) Classification and subsequent measurement

On initial recognition, a financial asset is classified as measured at: amortised cost, FVOCI – equity investment, or FVTPL.

Financial assets are not reclassified subsequent to their initial recognition unless the Company changes its business model for managing financial assets in which case all affected financial assets are reclassified on the first day of the first reporting period following the change in the business model.

A financial asset is measured at amortised cost if it meets both of the following conditions and is not designated as at FVTPL:

- It is held within a business model whose objective is to hold assets to collect contractual cash flows; and

- Its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

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3. Significant accounting policies (continued)

A non-recyclable preference can be made to introduce the Group's non-trading equity investment into the financial statements for the first time and present subsequent changes in its fair value in other comprehensive income. This selection is made separately for each investment.

All financial assets not classified as measured at amortised cost or FVOCI as described above are measured at FVTPL. On initial recognition, the Group may irrevocably designate a financial asset that otherwise meets the requirements to be measured at amortised cost or at FVOCI as at FVTPL if doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise.

On initial recognition of an equity investment that is not held for trading, the Group may irrevocably elect to present subsequent changes in the investment's fair value in other comprehensive income. This election is made on an investment-by-investment basis.

Financial assets: Business model assessment -

The Group makes an assessment of the objective of the business model in which a financial asset is held at a portfolio level because this best reflects the way the business is managed, and information is provided to management. The information considered includes:

- The stated policies and objectives for the portfolio and the operation of those policies in practice. These include whether management's strategy focuses on earning contractual interest income, maintaining a particular interest rate profile, matching the duration of the financial assets to the duration of any related liabilities or expected cash outflows or realizing cash flows through the sale of the assets;
- How the performance of the portfolio is evaluated and reported to the Group's management;
- The risks that affect the performance of the business model (and the financial assets held within that business model) and how those risks are managed;
- How managers of the business are compensated – e.g. whether compensation is based on the fair value of the assets managed or the contractual cash flows collected; and
- The frequency, volume and timing of sales of financial assets in prior periods, the reasons for such sales and expectations about future sales activity.

Transfers of financial assets to third parties in transactions that do not qualify for derecognition are not considered sales for this purpose, consistent with the Group's continuing recognition of the assets.

Financial assets that are managed and whose performance is evaluated on a fair value basis are measured at FVTPL.

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3. Significant accounting policies (continued)

Financial assets: Assessment whether contractual cash flows are solely payments of principal and interest

For the purposes of this assessment, 'principal' is defined as the fair value of the financial asset on initial recognition. 'Interest' is defined as consideration for the time value of money and for the credit risk associated with the principal amount outstanding during a particular period of time and for other basic lending risks and costs (e.g. liquidity risk and administrative costs), as well as a profit margin.

In assessing whether the contractual cash flows are solely payments of principal and interest, the Group considers the contractual terms of the instrument. This includes assessing whether the financial asset contains a contractual term that could change the timing or amount of contractual cash flows such that it would not meet this condition. In making this assessment, the Group considers:

- Contingent events that would change the amount or timing of cash flows;
- Terms that may adjust the contractual coupon rate, including variable-rate features;
- Prepayment and extension feature; and
- Terms that limit the Group's claim to cash flows from specified assets (e.g. non-recourse features).

A prepayment feature is consistent with the solely payments of principal and interest criterion if the prepayment amount substantially represents unpaid amounts of principal and interest on the principal amount outstanding, which may include reasonable additional compensation for early termination of the contract. Additionally, for a financial asset acquired at a significant discount or premium to its contractual par amount, a feature that permits or requires prepayment at an amount that substantially represents the contractual par amount plus accrued (but unpaid) contractual interest (which may also include reasonable additional compensation for early termination) is treated as consistent with this criterion if the fair value of the prepayment feature is insignificant at initial recognition.

Financial assets: Subsequent measurement and gains and losses.

Financial assets at FVTPL	These assets are subsequently measured at fair value. Net gains and losses, including any interest or dividend income, are recognized in profit or loss.
Financial assets at amortised cost	Financial assets at amortised cost are comprised of cash and cash equivalents, trade receivables, service concession receivables and other receivables. These assets are subsequently measured at amortised cost using the effective interest method. The amortised cost is reduced by impairment losses. Interest income, foreign exchange gains and losses and impairment are recognized in profit or loss. Any gain or loss on derecognition is recognized in profit or loss.
Debt investments at FVOCI	These assets are subsequently measured at fair value. Interest income calculated using the effective interest method, foreign exchange gains and losses and impairment are recognized in profit or loss. Other net gains and losses are recognized in OCI. On derecognition, gains and losses accumulated in OCI are reclassified to profit or loss.
Equity investments at FVOCI	These assets are subsequently measured at fair value. Dividends are recognized as income in profit or loss unless the dividend clearly represents a recovery of part of the cost of the investment. Other net gains and losses are recognized in OCI and are never reclassified to profit or loss.

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3. Significant accounting policies (continued)

Financial assets measured at fair value

Financial assets measured at amortized cost are financial instruments with fixed or determinable payments that are not quoted in an active market. These assets are initially recognized at fair value plus directly attributable transaction costs. After initial recognition, they valued at amortized cost using the effective interest method, less any impairment. Loans and receivables are comprised trade receivables and other receivables, including cash and cash equivalents, construction contracts receivables and receivables from preferential service agreements.

Cash and cash equivalents

Cash and cash equivalents comprise cash balances, bank deposits and other liquid assets with original maturities of three months or less from the acquisition date that are subject to an insignificant risk of changes in their fair value.

Service concession arrangements

According to the "Transfer of Operating Rights Agreement" ("TORA") signed between Türkiye Elektrik Dağıtım A.Ş. ("TEDAŞ") and YEDAŞ on 24 July 2006, the operating rights on the distribution installations and other items related thereto were transferred to YEDAŞ for a consideration of US Dollar 68.420 TORA consideration has been amortized by adding to revenue cap during the first tariff period (2006-2010). As at 31 December 2019, the aforementioned TORA consideration amount has been fully amortized.

TORA term is 30 years starting from 24 July 2006. At the end of this period, operational period may be extended by TEDAŞ in accordance with the related regulations which will be in force in the same period.

Under the terms of this agreement within in the scope of IFRIC 12, the Group acts as a service provider to distribute electricity ("the operator"). The operator constructs or upgrades infrastructure (construction or upgrade services) used to provide a public service and operates and maintains that infrastructure (operation services) for a specified period of time. There have been no changes in the structure of the agreement in the current year.

The Group recognises a financial asset arising from a service concession arrangement when it has an unconditional contractual right to receive cash or another financial asset from or at the discretion of the grantor Energy Market Regulatory Authority ("EMRA") for the construction or upgrade of the services provided.

The Group initially measures receivables resulting from its investments of which repayments are granted through tariffs under "Due from service concession agreements" item under trade receivables at fair value in accordance with "Financial Instruments: Recognition and Measurement" standard. Subsequent to the initial recognition, such financial assets are measured at amortized costs.

Parameters related to operating rights resulting from "Distribution and Retail Sales License" which YEDAŞ owns via TORA are updated by EMRA committee decisions during the five year implementation periods. As of 31 December 2019, YEDAŞ fulfilled its obligations related to the license for services which was privatized at 24 July 2006, including the first implementation period between 2006 and 2010 and the second implementation period which covers the years 2011 and 2015.

Rights related to second implementation period were announced by EMRA Committee Decision (Decision No: 2991) on 28 December 2010. Rights which will be applicable for the third implementation period between 2016 and 2020 were announced by EMRA with its committee decision dated 30 December 2015 and numbered 6033-1.

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3. Significant accounting policies (continued)

YEDAŞ's revenues and costs are subject to EMRA regulations. Revenue requirements of YEDAŞ are determined by EMRA and adjusted if necessary for the differences of revenue components approved by EMRA. In case of revenue components are above or below of revenue requirements determined by EMRA, those differences may be subject to adjustment depending on their compositions. Revenue requirements which has still under regulation over 5 years period consist of YEDAŞ's requirements for operating expenses, amortization of capital expenditures, alternative investment costs related to unamortised investments and tax differences added to or deducted from revenue in order to compensate periodic deviations which are resulting from tax implementations. Adjustments to revenue requirements are calculated by using Energy Market Index ("EPE") over the years.

YEDAŞ recognises and measures its revenue in accordance with IFRS 15 for the services provided.

Other

Other non derivative financial instruments are measured at amortised cost using the effective interest rate method, less any impairment losses.

Financial liabilities

The Group's financial liabilities and equity instruments are classified according to the substance of the contractual arrangements entered into and the definitions of a financial liability and an equity instrument. The contract representing the right in the assets of the Group after deducting all debts of the Group is an equity-based financial instrument. The accounting policies applied for certain financial liabilities and equity instruments are as follows.

Financial liabilities are classified as either financial liabilities at fair value through profit or loss or other financial liabilities

a) *Financial liabilities at fair value through profit or loss*

Financial liabilities at fair value through profit or loss are initially recognized at fair value and revalued at their fair value at the each balance sheet date. Changes in fair values are recognized in the consolidated statement of profit or loss. The net gain or loss recognized in the consolidated statement of profit or loss includes the interest paid on the financial liability.

b) *Other financial liabilities*

Other financial liabilities included financial debts have been accounted by considering its fair value without initial costs.

Other financial liabilities, included interest expense calculated by using effective interest rate in next period, have been accounted with its effective interest rate.

Effective interest method is an accounting methodology which refers to distributing interest expense into related periods while accounting redeemed cost. Effective interest rate is used to calculate present value of payments of a related financial liability during expected life of a financial instrument.

Security deposits

According to the Article 26 of Electricity Market Customer Services Regulation, legal entities which have retail electricity sale licenses, can demand security deposits from their subscribers in order to deduct customers' debts in case of possible inability to pay energy consumption fee due to address change and/or cease of retail sale agreements or termination of retail sale agreements.

Security deposits received from current subscribers are recognised in the "payables to third parties" item at the adjusted values based on inflation applicable to reporting dates using Consumer Price Index ("CPI") rates. Security deposits valuation expenses and realised security deposit expenses are recognised as finance cost in profit or loss.

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3. Significant accounting policies (continued)

Accounting on transaction and delivery date

All financial asset purchases and sales are recognized at the transaction date, in other words, it is accounted for when the Group commits to purchase or sell transaction. Ordinary purchases and sales are purchases and sales where the delivery period of the asset is generally determined according to legislations or regulations in the markets.

Offsetting

Financial assets and financial liabilities are offset, and the net amount presented in the statement of financial position when, and only when, the Group currently has a legally enforceable right to set off the amounts and it intends either to settle them on a net basis or to realise the asset and settle the liability simultaneously.

Derecognition

Financial assets

The Group derecognises a financial asset when the contractual rights to the cash flows from the financial asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all of the risks and rewards of ownership of the financial asset are transferred or in which the Group neither transfers nor retains substantially all of the risks and rewards of ownership and it does not retain control of the financial asset.

Financial liabilities

The Group derecognizes a financial liability when its contractual obligations are discharged or cancelled, or expire. The Group also derecognizes a financial liability when its terms are modified and the cash flows of the modified liability are substantially different, in which case a new financial liability based on the modified terms is recognized at fair value.

On derecognition of a financial liability, the difference between the carrying amount extinguished and the consideration paid (including any non-cash assets transferred or liabilities assumed) is recognized in profit or loss.

Impairment

Financial instruments and contract assets

The Group recognizes loss allowances for ECLs on:

- Financial assets measured at amortised cost;
- Contract assets (as defined in IFRS 15)

Provisions set aside for losses within the scope of IFRS 9 are accounted by following methods:

Financial assets with redeemed cost;

- Lifetime ECL: It refers to expected credit losses of defaulting on loans or debts during expected life of a financial instrument

Bank balance with no credit risk after initial recognition;

- 12 Month ECL refer to expected credit losses of defaulting on loans or debts in 12 months after the reporting date.

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3. Significant accounting policies (continued)

The Group has chosen the ECLs for the calculation of impairment of the receivables.

In the assessment of the credit risk of a financial asset whether the risk is significantly higher and the estimation of the ECLs, the Group recognizes the reasonable and supported information arising from the estimation of the credit losses without enduring of overcost and the effort regarding the expected estimation of the credit losses including the effect of the expected early payments. This information comprises future quantitative and qualitative information analysis based on the previous credit loss experience.

In terms of assessment of financial instrument whether it has a low credit risk or not, other methodologies that are alignment with the accepted global description of the low credit risk which in alignment and evaluated of the financial instruments might be applied.

The maximum time of scaling the ECLs is the maximum contract time that the Group is under the credit risk.

Measurement of ECLs

ECLs are an estimation weighted to the probability of the expected life of a financial instrument. In other words, it is the all of the discounted cash openings of the credit losses. (For example, it is the difference between the cash inflows of the referred contract to the entity and the expected collection of the cash flows).

The Group applies the simplistic approach in order to meet the expected credit loss to the trade receivables, other receivables, other assets and contract assets. (According to IFRS 9, expected credit loss provision must be applied to all of the trade receivables in perpetuity.)

ECLs are discounted at the effective interest rate of the financial asset.

Credit-impaired financial assets

At each reporting date, the Group assesses whether financial assets carried at amortised cost are credit-impaired. A financial asset is 'credit-impaired' when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred.

Presentation of allowance for ECL in the statement of financial position

Loss allowances for financial assets measured at amortised cost are deducted from the gross carrying amount of the assets.

Trade Receivables

The following analysis provides more detailed information on the calculation of the ECLs for trade receivables with the adoption of IFRS 9. The Group considers the model used and some of the assumptions used in the calculation of these ECLs as the main sources of estimation uncertainty.

The Group has calculated the ECLs based on the experience of credit losses realised in the last three years.

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3. Significant accounting policies (continued)

3.4 Property, plant and equipment

i) Recognition and measurement

The costs of items of property, plant and equipment of Çalık Enerji's Turkish entities purchased before 31 December 2004 are restated for the effects of inflation in TL units current at 31 December 2004 pursuant to IAS 29. Property, plant and equipment purchased after this date are recognised at their historical cost. Accordingly, property, plant and equipment of the Group are carried at costs, less accumulated depreciation and impairment losses.

Cost includes expenditures that are directly attributable to the acquisition of the asset. The cost of self-constructed assets includes the following:

- cost of materials and direct labor;
- any other costs directly attributable to bringing the asset to a working condition for its intended use;
- when the Group has an obligation to remove the assets or restore the site, an estimate of the costs of dismantling and removing the items and restoring the site on which they are located; and
- capitalised borrowing costs.

When parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property and equipment.

ii) Derecognition

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected from its use or disposal. Any gain or loss arising on derecognition of an item of property, plant and equipment (calculated as the difference between the net proceeds from disposal and the carrying amount of the asset) is recognised in "Income from investing activities" or "Expenses from investing activities" under profit or loss.

iii) Subsequent costs

Subsequent expenditure is capitalised only when it is probable that the future economic benefits associated with the expenditure will flow to the Group. Ongoing repairs and maintenance is expensed as incurred

iv) Depreciation

Items of property, plant and equipment are depreciated from the date that they are available for use or, in respect of self-constructed assets, from the date that the asset is completed and ready for use.

Depreciation is calculated to write off the cost of items of property, plant and equipment using the straight-line basis over their estimated useful lives. Depreciation is generally recognised in profit or loss, unless the amount is included in the carrying amount of another asset. Leased assets are depreciated over the shorter of the lease term and their useful lives unless it is reasonably certain that the Group will obtain ownership by the end of the lease term. Land is not depreciated.

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3. Significant accounting policies (continued)

The estimated useful lives for the current and comparative years of significant items of property and equipment are as follows:

Description	***Year***
Land, buildings and plants	50
Machinery and equipments	1-40
Motor vehicles	5-10
Furniture and equipment	3-15

Leasehold improvements are depreciated over the shorter of the lease term and their useful lives, also on a straight-line basis.

Depreciation methods, useful lives and residual values are reviewed at each reporting date and adjusted if appropriate.

3.5 Intangible assets

i) Recognition and measurement

Intangible assets of the Group consist of licences for oil exploration, hydroelectric power generation, wind power generation and electricity distribution rights and computer software acquired by the Group, which have finite useful lives, and are measured at cost less accumulated amortisation and any accumulated impairment losses, if any.

ii) Subsequent expenditures

Subsequent expenditure is capitalised only when it increases the future economic benefits embodied in the specific asset to which it relates. All other expenditure, including expenditure on internally generated goodwill, is recognised in profit or loss as incurred

iii) Amortisation

Intangible assets are amortised on a straight-line basis in profit or loss over their estimated useful lives, from the date that they are available for use.

Amortisation of service concession rights acquired by the Group is recognised in profit or loss on a straight line basis over their respective concession periods.

Amortisation of electricity distribution rights is based on the fair value of the asset which is acquired through business combination under scope of IFRS 3 "Business Combinations". The remaining amortisation period for electricity distribution rights are 26 years which is the service concession period of YEDAŞ when it was acquired by ÇEDAŞ. Licences and other intangible assets including computer software are amortised between 10 and 50 years and 2 and 10 years, respectively.

Amortisation methods, useful lives and residual values are reviewed at each reporting date and adjusted if appropriate.

3.6 Inventories

Inventories are measured at the lower of cost and net realisable value. The cost of trading goods is based on the weighted average method and includes expenditure and other costs incurred in bringing them to their existing location and condition.

Net realisable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and estimated costs necessary to make the sale.

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3. Significant accounting policies (continued)

3.7 Impairment non-financial assets

The carrying amounts of the Group's non-financial assets, other than inventories and deferred tax assets, are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. An impairment loss is recognised if the carrying amount of an asset or its related cash-generating unit ("CGU") exceeds its recoverable amount

The recoverable amount of an asset or CGU is the greater of its value in use and its fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or CGU. For the purpose of impairment testing, assets are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or CGUs. Subject to an operating segment ceiling test, CGUs to which goodwill has been allocated are aggregated so that the level at which impairment testing is performed reflects the lowest level at which goodwill is monitored for internal reporting purposes. Goodwill acquired in a business combination is allocated to groups of CGUs that are expected to benefit from the synergies of the combination.

Impairment losses are recognised in profit or loss. Impairment losses recognised in respect of CGUs are allocated first to reduce the carrying amount of any goodwill allocated to the CGU (group of CGUs), and then to reduce the carrying amounts of the other assets in the CGU (group of CGUs) on a pro rata basis.

An impairment loss in respect of goodwill is not reversed. Impairment loss is reversed when there is a change in the estimates used in the calculation of recoverable amount. For other assets, an impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised.

3.8 Employee benefits

i) Reserve for employee severance indemnity

Reserve for employee severance indemnity represents the present value of the estimated future probable obligation of the Group arising from the retirement of the employees and calculated in accordance with the Turkish Labour Law. It is computed and reflected in the consolidated financial statements on an accrual basis as it is earned by serving employees. The computation of the liabilities is based upon the retirement pay ceiling announced by the Government. The ceiling amounts applicable for each year of employment were US Dollar 1.07 and US Dollar 1.03 at 31 December 2019 and 2018, respectively.

IFRSs require actuarial valuation methods to be developed to estimate the entity's obligation under defined benefit plans. The total liability for employee severance benefit was calculated by an independent actuary based on past service cost methodology using the observerable statistical market data such as mortality, inflation and interest rates or retirement pay ceilings applicable to the relevant periods and assumptions derived from the specific historic date of the Group such as retention and employee turnover rates or salary increase rates.

Income ceiling calculation for the entities holding electricity distribution and retail sale license per the service concession agreement is updated yearly in accordance with EMRA decision No. 2991 dated 28 December 2010 in order to compensate the expenditures (such as employee benefit costs) relevant to the operations performed under these licenses as they are incurred. Accordingly, the employee severance indemnity amounting to US Dollar 1.941 (31 December 2018: US Dollar 1.074) had no effect on the Group's consolidated financial statements as of 31 December 2019 since the same amount will be compensated by the Government as an adjusting item in the following income ceiling calculation.

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3. Significant accounting policies (continued)

Actuarial gains/losses are comprised of adjustment of difference between actuarial assumptions and realised and change in actuarial assumptions. As a result of the adoption of IAS 19 (2011), all actuarial differences have to be recognised in other comprehensive income. However due to insignificance of the balances, the Group continues to recognise actuarial differences on reserve for employee severance indemnity in profit or loss both in the current and prior years.

Provision for employment termination indemnity are not subject to any statutory funding.

ii) Vacation pay liability

Short-term employee benefit obligations are consisting of reserve for the vacation pay liability due to the earned and unused vacation rights of its employees and measured on an undiscounted basis and are recognised in profit or loss as the related service is provided.

3.9 Provisions

A provision is recognised if, as a result of a past event, the Group has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability.

i) Provisions for EMRA regulations

In case of incompliance with the Electricity Market Act numbered 6446 which is effective after the publication on the Official Gazette dated 30 March 2013, numbered 28603 as well as with the regulations and communiqués promulgated by EMRA, EMRA sends a letter notifying the reason and related penalty fee with payment maturity to the Group. Although these penalties generally are paid in advance, some payments could be delayed until the final conclusion in case of disagreement with EMRA. Based on the final conclusions as a result of assessment made by the law department of the Group and assumption/analysis made by the Group management, required provision is made on the consolidated statement of the financial position as the notification is received.

ii) Onerous contracts

A provision for onerous contracts is recognised when the expected benefits to be derived by the Group from a contract are lower than the unavoidable cost of meeting its obligations under the contract. The provision is measured at the present value of the lower of the expected cost of terminating the contract and the expected net cost of continuing with the contract. Before a provision is established, the Group recognises any impairment loss on the assets associated with that contract.

3.10 Revenue

Revenue is recognized in the consolidated financial statements within the scope of the five-phase model below.

• Identification of contracts with customers

• Identification of performance obligations in contracts

• Determining the transaction price in contracts

• Distribution of transaction fee to performance obligations

• Revenue recognation

The Group evaluates the goods or services that undertakes in each contract with the customers and determines each commitment to transfer the said goods or services as a separate performance obligation. For each performance obligation, it is determined at the beginning of the contract that the performance of the performance obligation will be fulfilled in time or at a certain time. If the Group transfers the control of a good or service over time and thus fulfills the performance obligations related to the sales over time, it measures the progress of the fulfillment of the performance obligations and takes the revenue to the consolidated financial statements.

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3. Significant accounting policies (continued)

The accounting for the revenue of the Group's different activities is explained below:

i) Construction contracts

Contract revenue includes the initial amount agreed in the contract plus any variations in contract work, claims and incentive payments to the extent that it is probable that they will result in revenue and can be measured reliably. As soon as the outcome of a construction contract can be estimated reliably, contract revenue is recognised in profit or loss in proportion to the stage of completion of the contract. Contract expenses are recognised as incurred unless they create an asset related to future contract activity.

The stage of completion is assessed by reference to the proportion of contract costs incurred for work performed to date to the estimated total contract costs. When the outcome of a construction contract cannot be estimated reliably, contract revenue is recognised only to the extent of contract costs incurred that are likely to be recoverable. An expected loss on a contract is recognised immediately in profit or loss.

ii) Electricity sales

Due to the fact that the electricity could not be stored, the purchase and sales realizes simultaneously and accordingly revenue and cost of revenue are recognised at the transaction time. Monthly invoicing is made at the month ends, when the Group prepares invoices for rendering services to its customers during one-month period. The Group management monitors closely at period ends and the delays of 5-10 days in electricity usage count do not have a significant impact on the accompanying consolidated financial statements. Revenue from the sale of electricity to subscribers is stated, net of returns. Revenue is recognised when the significant risks and rewards of ownership have been transferred to the subscribers. Transfer of risk and rewards depends on the consumption of electricity by subscribers.

iii) Electricity retail sale service

Electricity retail sale service is defined in Electricity Market Law and Electricity Market License Communiqué promulgated by EMRA as other services such as invoicing or collection provided to the customers excluding the sale of electricity and/or capacity, the services provided by companies holding retail sale licenses to consumers. Electricity retail sale service fee included in the invoices issued by the Group contains invoicing costs, consumer services costs, capital expenditures relevant to the electricity retail sale services. Electricity retail sale service fee is applied to all customers who purchase energy from the Group.

iv) Transmission system utilisation

The transmission tariff is prepared by Türkiye Elektrik İletim A.Ş. ("TEİAŞ") and includes prices, terms and conditions for the provision of transmission service to all users benefiting from the transmission of generated, imported or exported electricity over the transmission facilities, which will be employed on the basis of non-discriminatory conduct principle in accordance with the Electricity Market Law Article 13. Grid investments made by TEİAŞ and transmission surcharges are included in the transmission tariff. Transmission system utilisation fees charged to the customers are the unit prices allocated by the entities holding electricity distribution license in order to compensate the transmission tariff charges invoiced by TEİAŞ to those entities.

v) Distribution system utilisation

Distribution activities covers establishing, operating and maintaining distribution facilities in order to transport the electricity through 36 kilowatt ("kW") or lower lines.

The distribution tariff includes prices, terms and conditions for the distribution service to all real persons and legal entities benefiting from the distribution of electricity through distribution facilities, which will be employed on the basis of non-discriminatory conduct principle in accordance with the Electricity Market Law Article 13. Distribution fee including distribution system utilisation price is calculated based on the costs of capital expenditures related to the distribution system, operating and maintenance expenses and collected from each distribution system users. Distribution fee does not include costs of energy, electricity retail sale service, meter reading and transmission.

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3. Significant accounting policies (continued)

vi) Meter reading

Meter reading fee is determined in accordance with the Electricity Market License Communiqué and Electricity Market Tariffs Communiqué and includes cost of meter reading. The mentioned fee is calculated based on reading frequency depending on the connection status and subscriber groups and charged to the distribution system users.

vii) Electricity dissipation and theft

Electricity dissipation and theft cost is calculated using electricity dissipation and theft ratio applied to the projected electricity transfer quantity based on each distribution region and charged to each electricity consumers including the industrial plants connected to the electricity network as electricity dissipation and theft income.

viii) Price balancing

A price balancing mechanism is applied by EMRA to protect the consumers purchasing electricity over the regulated tariffs from the price differences partially or wholly due to the cost differences among the distribution regions. The amount to be provided to or collected from the entities holding electricity distribution license is calculated in accordance with a formula determined by EMRA for each distribution region and informed to the parties. These amounts are recognised in profit or loss.

ix) Revenue from the sale of goods and services

Revenue from the sale of goods in the course of ordinary activities is measured at the fair value of the consideration received or receivable, net of returns and allowances and trade discounts. Revenue is recognised when persuasive evidence exists, usually in the form of an executed sales agreement, that the significant risks and rewards of ownership have been transferred to the buyer, recovery of the consideration is probable, the associated costs and possible return of goods can be estimated reliably, and there is no continuing management involvement with the goods and the amount of revenue can be measured reliably. If it is probable that discounts will be granted and the amount can be measured reliably, then the discount is recognised as a reduction of revenue as the sale is recognised.

Transfer of risks and rewards vary depending on the individual terms of the contract of sale. Revenue from services rendered is recognised in profit or loss in proportion to the stage of completion of the transaction at the reporting date

3.11 Right-of-use assets

The Group recognises right-of-use assets at the commencement date of the lease (i.e., the date the underlying asset is available for use). Right-of-use assets are measured at cost, less any accumulated depreciation and impairment losses, and adjusted for any remeasurement of lease liabilities. The cost of right-of-use assets includes the amount of lease liabilities recognised, initial direct costs incurred, and lease payments made at or before the commencement date less any lease incentives received. Unless the Group is reasonably certain to obtain ownership of the leased asset at the end of the lease term, the recognised right-of-use assets are depreciated on a straight-line basis over the shorter of its estimated useful life and the lease term.

Right-of-use assets are subject to impairment.

Lease liabilities

At the commencement date of the lease, the Group recognises lease liabilities measured at the present value of lease payments to be made over the lease term. The lease payments include fixed payments (including in-substance fixed payments) less any lease incentives receivable, variable lease payments that depend on an index or a rate, and amounts expected to be paid under residual value guarantees.

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3. Significant accounting policies (continued)

The lease payments also include the exercise price of a purchase option reasonably certain to be exercised by the Group and payments of penalties for terminating a lease, if the lease term reflects the Group exercising the option to terminate. The variable lease payments that do not depend on an index or a rate are recognised as expense in the period on which the event or condition that triggers the payment occurs.

In calculating the present value of lease payments, the Group uses the incremental borrowing rate at the lease commencement date if the interest rate implicit in the lease is not readily determinable. After the commencement date, the amount of lease liabilities is increased to reflect the accretion of interest and reduced for the lease payments made. In addition, the carrying amount of lease liabilities is remeasured if there is a modification, a change in the lease term, a change in the in-substance fixed lease payments or a change in the assessment to purchase the underlying asset.

Short-term leases and leases of low-value assets

The Group applies the short-term lease recognition exemption to its short-term leases of machinery and equipment (i.e., those leases that have a lease term of 12 months or less from the commencement date and do not contain a purchase option). It also applies the lease of low-value assets recognition exemption to leases of office equipment that are considered of low value. Lease payments on short-term leases and leases of low-value assets are recognised as expense on a straight-line basis over the lease term.

3.12 Finance income and finance cost

Finance income comprises foreign currency gains (excluding those on trade receivables and payables), and gains on derivative instruments used for economic hedge for the foreign currency risk of the borrowings or interest rate risk exposures originating from the borrowings that are recognised in profit or loss. Interest income obtained from related parties is recognised as it accrues, using the effective interest method.

Finance cost comprise interest expense on borrowings and due to related parties, foreign currency losses (excluding those on trade receivables and payables), and losses on derivative instruments used for economic hedge for the foreign currency or interest rate risk exposures originating from the borrowings that are recognised in profit or loss.

Borrowing costs that are not directly attributable to the acquisition, construction or production of a qualifying asset are recognised in profit or loss using the effective interest method.

Foreign currency gains and losses are reported on a net basis except of bank borrowings as either finance income or finance cost depending on whether foreign currency movements are in a net gain or net loss position by each entity of the Group.

3.13 Other income and expenses from operating activities

Other income from operating activities comprises interest income on time deposits that is recognised as it accrues in profit or loss, using the effective interest method, recoveries from provision for doubtful receivables and inventories, rediscount gains on trade and other payables, foreign currency gains (excluding those on borrowings) and other operating income.

Other expense from operating activities comprises commission expenses for letter of credits, provision expense for doubtful receivables and inventories, donations, rediscount losses on trade and other receivables, foreign currency losses (excluding those on borrowings) and other operating expenses.

Foreign currency gains and losses are reported on a net basis except of bank borrowings as either other income or other expense depending on whether foreign currency movements are in a net gain or net loss position by each entity of the Group.

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3. Significant accounting policies (continued)

3.14 Income and losses from investing activities

Income from investing activities comprises gain on sale subsidiaries and associates, dividend income from marketable securities, gain on sale of property, plant and equipment and intangible assets and other income from investing activities.

Losses from investing activities comprises losses on sale of property, plant and equipment and intangible assets and other losses from investing activities.

3.15 Income tax (including deferred tax assets and liabilities)

Income tax expense comprises current and deferred tax. Current tax and deferred tax are recognised in profit or loss except to the extent that it relates to a business combination, or items recognised directly in equity or in other comprehensive income.

Current tax is the expected tax payable or receivable on the taxable income or loss for the year, using tax rates enacted or substantively enacted at the reporting date, and any adjustment to tax payable in respect of previous years.

Deferred tax is recognised in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax is not recognised for the following temporary differences: the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit or loss, and differences relating to investments in subsidiaries, jointly arrangements and associates to the extent that it is probable that they will not reverse in the foreseeable future. In addition, deferred tax is not recognised for taxable temporary differences arising on the initial recognition of goodwill.

Deferred tax is measured at the tax rates that are expected to be applied to temporary differences when they reverse, using tax rates enacted or substantively enacted by the reporting date.

Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax liabilities and assets, and they relate to income taxes levied by the same tax authority on the same taxable entity.

A deferred tax asset is recognised for unused tax losses, tax credits and deductible temporary differences, to the extent that it is probable that future taxable profits will be available against which the temporary difference can be utilised. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realised.

Deferred taxes related to fair value measurement of financial assets at fair value through profit or loss are charged or credited to equity and subsequently recognised in profit or loss together with the deferred gains that are realised.

Tax exposures

In determining the amount of current and deferred tax, the Group takes into account the impact of uncertain tax positions and whether additional taxes and interest may be due. The Group believes that its accruals for tax liabilities are adequate for all open tax years based on its assessment of many factors, including interpretations of tax law and prior experience. This assessment relies on estimates and assumptions and may involve a series of judgments about future events. New information may become available that causes the Group to change its judgment regarding the adequacy of existing tax liabilities; such changes to tax liabilities will impact tax expense in the period that such a determination is made.

The provisions concerning to the "thin capitalization" are stated in the Article 12 of new corporate tax law. According to the Article 12, if the borrowings obtained directly or indirectly from the shareholders of the companies or persons related to shareholders exceeds three times of the shareholders' equity of the company operating in Turkey at any time during the related year, the exceeding portion of the borrowing will be treated as thin capital.

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3. Significant accounting policies (continued)

The financial borrowings were regarded as thin capitalization provided with:

- The borrowings obtained directly or indirectly from the shareholders of the companies or persons related to shareholders
- Used for/in the entity
- Borrowings exceeds three times of the shareholders' equity of the company at any time during the related year,

Transfer pricing

Transfer pricing is disclosed in the 13th clause of the Corporate Tax Law under the heading "veiled shifting of profit" via transfer pricing. The application details are stated in the "general communiqué regarding veiled shifting of profits via transfer pricing" published on 18 November 2007.

If the tax payer involves in transactions with related parties relating to trading of products or goods not performed within the framework of the principals regarding to pricing according to peers, then it will be considered that the related profits are shifted in a veiled way via transfer pricing. Such veiled shifting of profits via transfer pricing will not be deducted from tax assessment for the purposes of corporate tax.

3.16 Segment reporting

An operating segment is a component of the Group that engages in business activities through which it may earn revenues and incur expenses, whose operating results are regularly reviewed by the Group's management to make decisions about resources to be allocated to the segment and assess its performance and for which discrete financial information is available including revenues and expenses.

In order for an operating segment to be identified as a reportable segment, the revenue of the entity inter-departmental sales or transfers, constitutes 10% or more of the total revenue of all business segments within and outside the organization. It must be 10% or more, or the assets must be 10% or more of the total assets of all operating segments.

The reporting of the operating segments is arranged to ensure uniformity with the reporting to the chief operating decision maker. The sectors merged under '' Other" are combined to provide segment reporting based on the inability to meet the quantitative minimum limits for being a reportable segment.

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3. Significant accounting policies (continued)

3.17 Contingent assets and liabilities

If the inflows of the economic benefits to the Group are probable, contingent assets are disclosed in the notes to the consolidated financial statements. If it has become virtually certain that an inflow of economic benefits will arise, the asset and the related income are recognised in the consolidated financial statements of the period in which the change occurs.

Contingent liabilities are assessed continually to determine whether an outflow of resources embodying economic benefits has become probable. Unless the possibility of any outflow in settlement is remote, contingent liabilities are disclosed in the notes to the financial statements.

3.18 Subsequent events

Subsequent events represent the events after reporting date comprising any event between the reporting date and the date of authorisation for the financial statements' issue to the benefit or loss of the entity. Conditions of subsequent events are as follows:

- to have new evidences of subsequent events as of reporting date (adjusting events after reporting date); and

- to have evidences of related subsequent events occurred after reporting date (non adjusting events after reporting date).

The Group adjusts its consolidated financial statements according to the new condition if adjusting subsequent events arise subsequent to the reporting date. If it is not necessary to adjust the consolidated financial statements according to subsequent events, these subsequent events must be disclosed in the notes to the consolidated financial statements.

3.19 Statement of cash flows

Cash flows during the period are classified and reported by operating, investing and financing activities in the cash flow statements.

Cash flows from operating activities reflect cash flows mainly generated from main operations of the Group. The Group presents the cash flows from operating activities by using the indirect method such as adjusting the accruals for cash inflows and outflows from gross profit/loss, other non-cash transactions, prior and future transactions or deferrals.

Cash flows from investment activities reflect cash used in investment activities (direct investments and financial investments) and cash flows generated from investment activities of the Group.

Cash flows relating to financing activities reflect sources of financial activities and payment schedules of the Group.

Cash and cash equivalents comprise cash on hand and demand deposits, investment funds, reverse repo receivables and other bank deposits which their maturities are three months or less from date of acquisition. Any restricted cash and cash equivalents that are not ready for the Group's use as at the reporting date, are excluded from the sum of the cash and cash equivalent in the consolidated statement of cash flows.

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3. Significant accounting policies (continued)

3.20 Related parties

Parties are considered related to the Group if:

(a) Directly, or indirectly through one or more intermediaries, the party:

- (i) controls is controlled by, or is under common control with the Group (this includes parent, subsidiaries and fellow subsidiaries);
- (ii) has an interest in the Group that gives it significant influence over the Group; or
- (iii) has joint control over the Group;

(b) the party is an associate of the Group;

(c) the party is a joint venture in which the Group is a venturer;

(d) the party is member of the key management personnel of the Group and its parent;

(e) the party is a close member of the family of any individual referred to in (a) or (d);

(f) the party is an entity that is controlled or significantly influenced by, or for which significant voting power in such entity resides with directly or indirectly, any individual referred to in (d) or (e);

(g) the party is a post-employment benefit plan for the benefit of employees of the Group, or of any entity that is a related party of the Group.

A related party transaction is a transfer of resources, services or obligations between related parties, regardless of whether a price is charged.

A number of transactions are entered into with related parties in the normal course of business.

3.21 The new standards, amendments and interpretations

The accounting policies adopted in preparation of the consolidated financial statements as at 31 December 2019 are consistent with those of the previous financial year, except for the adoption of new and amended IFRS and IFRIC interpretations effective as of 1 January 2019. The effects of these standards and interpretations on the Group's financial position and performance have been disclosed in the related paragraphs.

i) The new standards, amendments and interpretations which are effective as at 1 January 2019 are as follows:

IFRS 16 Leases

The IASB has published a new standard, IFRS 16 'Leases'. The new standard brings most leases on-balance sheet for lessees under a single model, eliminating the distinction between operating and finance leases. Lessor accounting however remains largely unchanged and the distinction between operating and finance leases is retained. IFRS 16 supersedes IAS 17 'Leases' and related interpretations and is effective for periods beginning on or after January 1, 2019.

Lessees have recognition exemptions to applying this standard in case of short-term leases (i.e., leases with a lease term of 12 months or less) and leases of 'low-value' assets (e.g., personal computers, office equipment, etc.). At the commencement date of a lease, a lessee measures the lease liability at the present value of the lease payments that are not paid at that date (i.e., the lease liability), at the same date recognises an asset representing the right to use the underlying asset (i.e., the right-of-use asset) and depreciates it during the lease term. The lease payments shall be discounted using the interest rate implicit in the lease, if that rate can be readily determined. If that rate cannot be readily determined, the lessee shall use the lessee's incremental borrowing rate. Lessees are required to recognise the interest expense on the lease liability and the depreciation expense on the right-of-use asset separately.

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3. Significant accounting policies (continued)

Lessees are required to remeasure the lease liability upon the occurrence of certain events (e.g. a change in the lease term, a change in future lease payments resulting from a change in an index or rate used to determine those payments). Under these circumstances, the lessee recognises the amount of the remeasurement of the lease liability as an adjustment to the right-of-use asset.

Transition to IFRS 16:

The Group adopted IFRS 16 using the modified retrospective approach. The Group elected to apply the standard to contracts that were previously identified as leases applying IAS 17 and IFRIC 4. The Company / the Group therefore did not apply the standard to contracts that were not previously identified as containing a lease applying IAS 17 and IFRIC 4.

The Group elected to use the exemptions applicable to the standard on lease contracts for which the lease terms ends within 12 months as of the date of initial application and lease contracts for which the underlying asset is of low value. The Group has leases of certain office equipment (i.e., personal computers, printing and photocopying machines) that are considered of low value.

Impact on the consolidated statement of financial position (increase/(decrease)) as at 1 January 2019:

Assets	
Right-of-use assets	3.844
Liabilities	
Lease liabilities	3.844

The standard is applied for annual periods beginning on or after 1 January 2019.

Amendments to IAS 28 "Investments in Associates and Joint Ventures" (Amendments)

In October 2017, the IASB issued amendments to IAS 28 Investments in Associates and Joint Ventures. The amendments clarify that a company applies IFRS 9 Financial Instruments to long-term interests in an associate or joint venture that form part of the net investment in the associate or joint venture.

IFRS 9 Financial Instruments excludes interests in associates and joint ventures accounted for in accordance with IAS 28 Investments in Associates and Joint Ventures. In this amendment, IASB clarified that the exclusion in IFRS 9 applies only to interests a company accounts for using the equity method. A company applies IFRS 9 to other interests in associates and joint ventures, including long-term interests to which the equity method is not applied and that, in substance, form part of the net investment in those associates and joint ventures.

These amendments are applied for annual periods beginning on or after 1 January 2019. The amendments did not have a significant impact on the financial position or performance of the Group.

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3. Significant accounting policies (continued)

IFRIC 23 Uncertainty over Income Tax Treatments

The interpretation clarifies how to apply the recognition and measurement requirements in "IAS 12 Income Taxes" when there is uncertainty over income tax treatments.

When there is uncertainty over income tax treatments, the interpretation addresses:
(a) whether an entity considers uncertain tax treatments separately;
(b) the assumptions an entity makes about the examination of tax treatments by taxation authorities;
(c) how an entity determines taxable profit (tax loss), tax bases, unused tax losses, unused tax credits and tax rates; and
(d) how an entity considers changes in facts and circumstances.

The interpretation is effective for annual reporting periods beginning on or after 1 January 2019. The interpretation did not have a significant impact on the financial position or performance of the Group.

Annual Improvements – 2015–2017 Cycle

In December 2017, the IASB issued Annual Improvements to IFRS Standards 2015–2017 Cycle, amending the following standards:

- IFRS 3 Business Combinations and IFRS 11 Joint Arrangements — The amendments to IFRS 3 clarify that when an entity obtains control of a business that is a joint operation, it remeasures previously held interests in that business. The amendments to IFRS 11 clarify that when an entity obtains joint control of a business that is a joint operation, the entity does not remeasure previously held interests in that business.
- IAS 12 *Income Taxes* — The amendments clarify that all income tax consequences of dividends (i.e. distribution of profits) should be recognised in profit or loss, regardless of how the tax arises.
- IAS 23 *Borrowing Costs* — The amendments clarify that if any specific borrowing remains outstanding after the related asset is ready for its intended use or sale, that borrowing becomes part of the funds that an entity borrows *generally* when calculating the capitalisation rate on general borrowings.

The amendments are effective from annual periods beginning on or after 1 January 2019. The amendments did not have a significant impact on the financial position or performance of the Group.

Plan Amendment, Curtailment or Settlement" (Amendments to IAS 19)

On 7 February 2018, the IASB published Amendments to IAS 19 "Plan Amendment, Curtailment or Settlement" The amendments require entities to use updated actuarial assumptions to determine current service cost and net interest for the remainder of the annual reporting period after a plan amendment, curtailment or settlement occurs. These amendments are applied for annual periods beginning on or after 1 January 2019. The amendments did not have a significant impact on the financial position or performance of the Group.

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3. Significant accounting policies (continued)

Prepayment Features with Negative Compensation (Amendments to IFRS 9)

The IASB issued minor amendments to IFRS 9 Financial Instruments to enable companies to measure some prepayable financial assets at amortised cost.

Applying IFRS 9, a company would measure a financial asset with so-called negative compensation at fair value through profit or loss. Applying the amendments, if a specific condition is met, entities will be able to measure at amortised cost some prepayable financial assets with so-called negative compensation.

These amendments are applied for annual periods beginning on or after 1 January 2019. *The amendments are not applicable for the Group and did not have an impact on the financial position or performance of the Group.*

ii) Standards issued but not yet effective and not early adopted

Standards, interpretations and amendments to existing standards that are issued but not yet effective up to the date of issuance of the *consolidated* financial statements are as follows. *The Group* will make the necessary changes if not indicated otherwise, which will be affecting *the consolidated* financial statements and disclosures, when the new standards and interpretations become effective.

IFRS 10 and IAS 28: Sale or Contribution of Assets between an Investor and its Associate or Joint Venture (Amendments)

In December 2015, the IASB postponed the effective date of this amendment indefinitely pending the outcome of its research project on the equity method of accounting. Early application of the amendments is still permitted. The Group will wait until the final amendment to assess the impacts of the changes.

IFRS 17 - The new Standard for insurance contracts

The IASB issued IFRS 17, a comprehensive new accounting standard for insurance contracts covering recognition and measurement, presentation and disclosure. IFRS 17 model combines a current balance sheet measurement of insurance contract liabilities with the recognition of profit over the period that services are provided. Certain changes in the estimates of future cash flows and the risk adjustment are also recognised over the period that services are provided. Entities will have an option to present the effect of changes in discount rates either in profit and loss or in OCI. The standard includes specific guidance on measurement and presentation for insurance contracts with participation features. IFRS 17 will become effective for annual reporting periods beginning on or after 1 January 2021; early application is permitted. The Group is in the process of assessing the impact of the standard on financial position or performance of the Group.

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3. Significant accounting policies (continued)

Definition of a Business (Amendments to IFRS 3)

In October 2018, the IASB issued amendments to the definition of a business in IFRS 3 Business Combinations. The amendments are intended to assist entities to determine whether a transaction should be accounted for as a business combination or as an asset acquisition.

The amendments:
- clarify the minimum requirements for a business;
- remove the assessment of whether market participants are capable of replacing any missing elements;
- add guidance to help entities assess whether an acquired process is substantive;
- narrow the definitions of a business and of outputs; and
- introduce an optional fair value concentration test.

The amendments to IFRS 3 are effective for annual reporting periods beginning on or after 1 January 2020 and apply prospectively. Earlier application is permitted.

The Group is in the process of assessing the impact of the amendments on financial position or performance of the Group.

Definition of Material (Amendments to IAS 1 and IAS 8)

In October 2018, the IASB issued amendments to IAS 1 Presentation of Financial Statements and IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors to align the definition of 'material' across the standards and to clarify certain aspects of the definition. The new definition states that, 'Information is material if omitting, misstating or obscuring it could reasonably be expected to influence decisions that the primary users of general-purpose financial statements make on the basis of those financial statements, which provide financial information about a specific reporting entity. The amendments clarify that materiality will depend on the nature or magnitude of information, or both. An entity will need to assess whether the information, either individually or in combination with other information, is material in the context of the financial statements.

The amendments to IAS 1 and IAS 8 are required to be applied for annual periods beginning on or after 1 January 2020. The amendments must be applied prospectively, and earlier application is permitted.

The Group is in the process of assessing the impact of the amendments on financial position or performance of the Group.

Amendments to IFRS 9, IAS 39 and IFRS 7- Interest Rate Benchmark Reform

The amendments issued to IFRS 9 and IAS 39 which are effective for periods beginning on or after 1 January 2020 provide certain reliefs for 4 fundamental matters in connection with interest rate benchmark reform. These reliefs are related to hedge accounting as follows:

- Highly probable requirement
- Prospective Assessments
- Retrospective Assessments
- Separately identifiable risk components

Reliefs used as a result of amendments in IFRS 9 and IAS 39 is aimed to be disclosed in financial statements based on the amendments made in IFRS 7.

The Group is in the process of assessing the impact of the amendments on financial position or performance of the Group.

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3. Significant accounting policies (continued)

Amendments to IAS 1- Classification of Liabilities as Current and Non-Current Liabilities

23 January 2020, the IASB issued amendments to IAS 1 Presentation of Financial Statements. The amendments issued to IAS 1 which are effective for periods beginning on or after 1 January 2022, clarify the criteria for the classification of a liability as either current or non-current. Amendments must be applied retrospectively in accordance with IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors. Early application is permitted.

The Group is in the process of assessing the impact of the amendments on financial position or performance of the Group.

4. Related party disclosures

For the purpose of the consolidated financial statements, the shareholders, key management personnel and the Board members, and in each case, together with their families and companies controlled by/affiliated with them; and joint ventures are considered and referred to as the related parties. A number of transactions are entered into with the related parties in the normal course of business. Most of the related party activity is eliminated at consolidation and the remaining activity is not material to the Group.

As disclosed in detail in Note 3, the joint ventures of the Group have been accounted for using the equity method in the consolidated financial statements. Accordingly, the transactions of Group's subsidiaries with joint ventures and the balances from joint ventures are not subject to elimination.

Related party balances

As at 31 December, the Group had the following balances outstanding from its related parties:

	2019			
	Shareholders	Joint ventures	Other	Total
Trade receivables	-	-	23.496	23.496
Other receivables	110.366	-	18.397	128.763
Cash and cash equivalents	-	-	4.006	4.006
Other payables	(60.908)	-	(1.311)	(62.219)
Trade payables	(693)	-	(500)	(1.193)
Deferred revenue	-	-	(10.388)	(10.388)
Total	**48.765**	**-**	**33.700**	**82.465**

	2018			
	Shareholders	Joint ventures	Other	Total
Trade receivables	-	59	150.081	150.140
Other receivables	30.386	2.042	166.933	199.361
Cash and cash equivalents	-	-	560	560
Other payables	(514)	-	(21.972)	(22.486)
Trade payables	(368)	(2)	(2.878)	(3.248)
Deferred revenue	-	-	(63)	(63)
Total	**29.504**	**2.099**	**292.661**	**324.264**

As at 31 December, cash and cash equivalents include balances of the Group's subsidiaries with Aktifbank Yatırım Bankası A.Ş.

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4. Related party disclosures (continue)

Other receivables amounting to US Dollar 110.366 (31 December 2018: US Dollar 30.386) is composed of receivables from Çalık Holding given by the Group's subsidiaries for funding of the operations.

As at 31 December 2019, other payables amounting to US Dollar 62.219 (31 December 2018: 22.486) is composed of funding amounts from related parties and Çalık Holding's recharges including management expenditures and common usage cost.

For the years ended 31 December, deferred revenue is composed of advances taken from Mitsubishi Corporation in accordance with ongoing Engineering Procurement and Construction ("EPC") contracts in Basra, Iraq.

As at 31 December 2019, intra-group interest rates are determined for the aforementioned intra-group balances considering the average interest rates of the borrowings used by Çalık Group entities. The average effective interest rates for receivable and payable balances denominated in TL, EUR and USD are 19,04%, 7,01% and 7,06% respectively (2018: 27%, 8,50% and 8,75%, respectively).

There is no guarantees given or taken for the due to and due from related parties, respectively.

No impairment losses have been recognised against balances outstanding as at 31 December 2019 (31 December 2018: None) and no specific allowance has been made for impairment losses on balances with the related parties.

Related party transactions

For the years ended 31 December, the revenues earned and expenses incurred by the Group in relation to transactions with its related parties as summarised below:

		2019		
	Shareholders	**Joint ventures**	**Other**	**Total**
Revenue (*)	-	-	215.984	215.984
Cost of sales	-	-	(997)	(997)
Administrative expenses (**)	(4.829)	-	(2.141)	(6.970)
Selling and marketing expenses	-	-	(1.892)	(1.892)
Research and development expenses	(3)	-	(1.416)	(1.419)
Net finance income	-	-	61	61
Expense from investing activities, net	(757)	-	(1.842)	(2.599)
Total	**(5.589)**	**-**	**207.757**	**202.168**

		2018		
	Shareholders	**Joint ventures**	**Other**	**Total**
Revenue (*)	-	876	337.237	338.113
Cost of sales	(13)	(45)	(3.430)	(3.488)
Administrative expenses	(4.190)	-	(3.132)	(7.322)
Selling and marketing expenses	-	-	(1.109)	(1.109)
Research and development expenses	-	-	(489)	(489)
Net finance costs	(337)	(379)	(1.724)	(2.440)
Income from investing activities, net	(301)	-	927	626
Total	**(4.841)**	**452**	**328.280**	**323.891**

(*) For the year ended 31 December 2019, revenue transactions mainly composed of progress billings to Mitsubishi Corporation, a related party and prime contractor for the projects, in accordance with ongoing engineering, procurement and construction contracts in Uzbekistan city of Navoi and Nemengan amounting to USD 215.894 (31 December: USD 336.983).

(**) For the year ended 31 December 2019, administrative expenses mainly composed of service and insurance billings from Çalık Holding and Sigortayeri Sigorta ve Reasürans Brokerlığı A.Ş.

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4. Related party disclosures (continue)

Transactions with key management personnel

On a consolidated basis, key management costs included in administrative expenses for the year ended on 31 December 2019 amounted to US Dollar 4.003 (31 December 2018: US Dollar 1.905). The related amount consists of salary and wages, bonus and premiums, attendance fee and such other payments to key management.

5. Cash and cash equivalents

At 31 December, cash and cash equivalents comprised the following:

	31 December 2019	31 December 2018
Cash on hand	420	109
Cash at banks	153.745	62.908
-Demand deposits	*24.208*	23.252
-Time deposits	*129.537*	39.656
Other cash and cash equivalents(*)	35	26
Cash and cash equivalents	**154.200**	**63.043**
Restricted bank balances	(64.191)	(27.244)
Cash and cash equivalents in the consolidated statement of cash flows	**90.009**	**35.799**

(*) As at 31 December 2019, other cash and cash equivalents mainly consist of money in transit amounting to US Dollar 26 (31 December 2018: US Dollar 21) and credit card receivables amounting to US Dollar 9 (31 December 2018: 5).

As at 31 December 2019, average effective interest rates on TL denominated time deposits is 8,03% (31 December 2018: 10%) and maturity of time deposits is 74 days (31 December 2018: 3).

As at 31 December 2019, average effective interest rates on USD denominated time deposits is 1,88% (31 December 2018: 1,75%) and maturity of time deposits is 34 days (31 December 2018: 3 day).

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6. Restricted bank balances

At 31 December, Restricted bank balances comprised the following:

	31 December 2019	31 December 2018
EPC ve maintenance blocked amount (*)	639	1.218
Collateral (*)	59.756	23.516
Public case blocked amount (*)	21	24
Takas Bank blocked amount (*)	3.775	1.425
Aktifbank given guarantees (*)	-	1.061
Restricted bank balances	**64.191**	**27.244**

(*) The restricted cash and cash equivalents amounting to US Dollar 64.191 (31 December 2018: US Dollar 27.244) is not available for the Group's daily transactions as at 31 December 2019. There is no (31 December 2018: US Dollar 46) portion of the amount held in banks in Turkey with the contracts related to the engineering services, procurement operations and construction projects. There is no (31 December 2018: 534) portion held in bank in Uzbekistan, US Dollar 639 (31 December 2018: US Dollar 638) portion held in bank in Georgia referring partial maintenance contract, and the portion amounting to US Dollar 59.756 (31 December 2018: US Dollar 23.516) takes place as a mandatory guarentee related to loans in domestic banks. In addition, the US Dollar 21 (31 December 2018: US Dollar 24) portion blocked and held by court referring to the nationalization lawsuits. The US Dollar 3.775 (31 December 2018: US Dollar 1.425) portion of the remaining part of the amount held for the cash guarantee given to the İstanbul Takas ve Saklama Bankası A.Ş. with the provision of the used electricity. There is no (31 December 2018: US Dollar 1.061) portion consist of letter of guarantee received from the Aktifbank.

The Group's exposure to currency risks related to cash and cash equivalents are disclosed in Note 28.

7. Financial investments

As at 31 December 2019 and 2018, financial investments comprised the following:

	31 December 2019			31 December 2018		
	Current	Non-current	Total	Current	Non-current	Total
Financial assets measured at fair value through profit or loss	-	32.959	32.959	-	22.411	22.411
	-	**32.959**	**32.959**	**-**	**22.411**	**22.411**

As at 31 December 2019 and 2018, financial assets measured at fair value through profit or loss comprised the following:

Equity instruments	31 December 2019	31 December 2018
Equity securities – non-listed	32.959	22.411
Total	**32.959**	**22.411**

As of 31 December 2019, and 2018, the details of the investments classified as financial assets at fair value through profit or loss and the shareholding rates are as follows:

	%	31 December 2019	%	31 December 2018
Equity securities - available for sale:				
Bursagaz Bursa Şehiriçi Doğal Gaz Dağıtım Ticaret ve Taahhüt A.Ş. ("Bursagaz")	10,00	18.990	10,00	16.770
Kayserigaz Kayseri Doğalgaz Dağıtım Pazarlama Ticaret A.Ş. ("Kayserigaz")	10,00	11.516	10,00	6.687
Other	-	1.141		911
Translation Difference	-	1.312		(1.957)
Total		**32.959**		**22.411**

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7. Financial investments (continue)

The movements in financial investments during the years ended 31 December were as follows:

	2019	2018
At 1 January	**22.411**	**9.765**
Additions	-	-
Fair value increases (*)	5.663	16.742
Capital increase addition and acquisition(**)	1.944	-
Disposals(***)	(803)	-
Translation difference	3.744	(4.096)
At 31 December	**32.959**	**22.411**

(*) The addition amount relized in 2019 arise from the fair value increase of the shares of Bursagaz and Kayserigaz which are measured at fair value through profit or loss in the consolidated financial statements as at 31 December 2019.

(**) At the 2019 year ended, Olimpos Solar Enerji Üretim A.Ş., Pasifik Solar Enerji Üretim A.Ş.are not consolidated although both companies' acquired. Uztur Investment and Development is a newly established company and is consolidated to the consolidated financial statemens at the year ended 2019. In addition to the explanations ÇL Enerji Üretim ve İnşaat A.Ş.are consolidated to the financial statements unlike prior period.

(***) Granite Holding N.V. was liquidated as at 31 October 2019 and was not consolidated since it is inactive.

The table below presents the summary of the financial information of the main financial investments:

			31 December 2019			
Name	**Total asset**	**Total equity**	**Retained earnings attributable to the owners' of the Company**	**Net income/ (loss) for the period**	**Reviewed/ audited**	**Period**
Bursagaz	165.193	69.664	10.234	13.910	Unaudited	31 December 19
Kayserigaz	83.190	29.727	21.166	7.185	Unaudited	31 December 19

			31 December 2018			
Name	**Total asset**	**Total equity**	**Retained earnings attributable to the owners' of the Company**	**Net income/ (loss) for the period**	**Reviewed/ audited**	**Period**
Bursagaz	154.588	62.953	4.908	6.648	Unaudited	31 December 2018
Kayserigaz	76.744	25.453	19.623	4.951	Unaudited	31 December 2018

In Bursagaz and Kayserigaz fair value calculations, the ebitda multiplier method has been applied. If the multiplier of the used ebitda changes 0.5, it will cause a change in the consolidated financial statements of amounting to USD 205.

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8. Trade receivables, service concession receivables and trade payables

Trade receivables

Short-term trade receivables

As at 31 December 2019 and 2018, short-term trade receivables comprised the following:

	31 December 2019	31 December 2018
Due from related parties (Note 4)	23.496	102.398
Due from third parties	150.850	153.788
	174.346	**256.186**

As at 31 December 2019 and 2018, short-term trade receivables comprised the following:

	31 December 2019	31 December 2018
Accounts receivable (*)	174.346	256.186
Doubtful receivables	25.487	23.335
Allowance for doubtful receivables	(25.487)	(23.335)
Total	**174.346**	**256.186**

(*) As at 31 December 2019 trade receivables of the Group mainly consists of engineering services, supply operations and uncollected portion of progress billings related to EPC agreement to US Dollar 127.007 (31 December 2018: US Dollar 284.280).

Movement of allowance for doubtful receivables for the years ended at 31 December is as follows:

	2019	2018
Allowance at the beginning of year	**23.335**	**26.996**
IFRS 9 accounting policy change effect	-	1.684
Provision for impairment (Note 26)	7.195	6.256
Reversal of impairment allowances no longer required (-) (Note 26)	(3.883)	(4.527)
Translation differences	(1.160)	(7.074)
Total	**25.487**	**23.335**

Long-term trade receivables

As at 31 December, long-term trade receivables comprised the following:

	31 December 2019	31 December 2018
Due from third parties	724	69.483
Due from related parties (Note 4)	-	47.742
Total	**724**	**117.225**

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8. Trade receivables, service concession receivables and trade payables (continue)

Service concession receivables

As at 31 December, service concession receivables comprised the following:

	31 December 2019	31 December 2018
Short term service concession receivables	48.974	70.140
Long term service concession receivables	242.083	259.256
Total	**291.057**	**329.396**

Maturity of the service concession receivables was as follows:

	Receivables subject to redemption	
Redemption	**31 December 2019**	**31 December 2018**
Due within one year	48.974	70.140
Due one to three years	73.117	72.292
Due three to five years	100.082	101.252
Due over five years	68.884	85.712
Total	**291.057**	**329.396**

Movement of service concession receivables for the year ended at 31 December was as follows:

	2019	2018
At 1 January	**329.396**	**372.937**
Additions	24.896	55.074
Redemptions related to current year investments	(69.209)	(62.513)
Financial income	33.154	54.667
Correction at current period regarding revenue caps	10.456	29.493
Other	-	(7.818)
Translation difference	(37.636)	(112.444)
At 31 December	**291.057**	**329.396**

Short-term trade payables

As at 31 December 2019 and 2018, short-term trade payables comprised the following:

	31 December 2019	31 December 2018
Due to third parties	50.351	145.042
Due to related parties (Note 4)	1.193	3.248
	51.544	**148.290**

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8. Trade receivables, service concession receivables and trade payables (continue)

As at 31 December 2019 and 2018, third parties short-term trade payables comprised the following:

	31 December 2019	31 December 2018
Trade payables (*)	46.607	124.073
Expense accruals	3.744	13.432
Other	-	7.537
	50.351	**145.042**

(*) Trade payables mainly comprise payables to suppliers the EPC contracts, average maturity of debt is between 30 and 45 days. The payment schedule comprises some performance indicators when they met and preliminary contract advance and finally temporary acceptance and/or at the en of the work. In addition, this amount consists of debt which comprises the electricity distribution and retail sales amounting to 31.308 US Dollars (31 December 2018: 28.157 US Dollars) respectively from the companies Türkiye Elektrik Ticaret Taahhüt Anonim Şirketi arising from the purchases of the electricity and Türkiye Elektrik İletim Anonim Şirketi arising from the usage of the electricity transfer lines.

9. Other receivables and other payables

As at 31 December 2019 and 2018, other short-term receivables comprised the following:

	31 December 2019	31 December 2018
Due from related parties (Note 4)	27.343	60.198
Due from third parties	22.734	8.160
	50.077	**68.358**

As at 31 December, short-term other receivables from third parties comprised the following:

	31 December 2019	31 December 2018
Other receivables (*)	22.148	7.967
Receivables from tax authorities	481	96
Deposits and guarantees given	95	67
Receivables from personnel	10	30
	22.734	**8.160**

(*) This amount consists of receivables from TEDAŞ regarding payments such as expropriation fees made on behalf of TEDAŞ.

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9. Other receivables and other payables (continued)

Other long term receivables

As at 31 December 2019 and 2018, other long term receivables comprised the following:

	31 December 2019	31 December 2018
Due from related parties (Note 4)	101.420	139.163
Due from third parties	6.017	4.942
	107.437	**144.105**

As at 31 December 2019 and 2018, due from third parties comprised the following:

	31 December 2019	31 December 2018
Deposits and guarantees given	3.109	4.077
Receivables from TEİAŞ	2.908	865
Total	**6.017**	**4.942**

Other short term payables

As at 31 December 2019 and 2018, other short-term payables comprised the following:

	31 December 2019	31 December 2018
Due to related parties (Note 4)	62.219	22.475
Due to third parties	8.666	5.920
Total	**70.885**	**28.395**

As at 31 December 2019 and 2018, other short-term payables to third parties comprised the following:

	31 December 2019	31 December 2018
Deposits and guarantees received	4.949	4.007
Others	3.717	1.913
Total	**8.666**	**5.920**

Other long term payables

As at 31 December 2019 and 2018, other long-term payables comprised the following:

	31 December 2019	31 December 2018
Deposits and guarantees received (*)	48.236	42.858
Due to shareholders	-	11
Total	**48.236**	**42.869**

(**) As at 31 December 2019 and 2018, the deposits and guarantees received mainly consist of security deposits received by the electricity distribution and retail sale companies of the Group from their customers.

The Group's exposure to credit and currency risks related to other receivables and liquidity and currency risks of other payables are disclosed in Note 28.

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10. Inventories

As at 31 December 2019 and 2018, inventories comprised the following:

	31 December 2019	31 December 2018
Raw materials and supplies	5.233	5.938
Trading goods	166	305
Total	**5.399**	**6.243**

11. Prepayments and deferred income

Short term prepayments

As at 31 December 2019 and 2018, current prepayments comprised the following:

	31 December 2019	31 December 2018
Advances given (*)	7.332	35.465
Prepayments for the following months	2.048	3.331
Total	**9.380**	**38.796**

(*) As at 31 December 2019, advances given consists advance balances amounting to US Dollar 408 (31 December 2018: US Dollar 459) given to EPİAŞ for electricity purchases and advance balances amounting to US Dollar 6.664 (31 December 2018: US Dollar 34.843) given to suppliers and service providers for EPC projects.

Long term prepayments

As at 31 December 2019 and 2018, non-current prepayments comprised the following:

	31 December 2019	31 December 2018
Prepayments for the following years	1.735	2.028
Total	**1.735**	**2.028**

Short term deferred revenue

As at 31 December, short term deferred revenue comprised the following:

	31 December 2019	31 December 2018
Advances received (*)	18.908	68.200
Total	**18.908**	**68.200**

(*) Advances received are composed of the contract advances received from Türkmen Energo Gurluşuk State Company within the scope of the MRC project undertaken by the Group in Turkmenistan, General Electricity Company of Libya within the scope of the KMS project undertaken by the Group in Libya and from Mitsubishi Corporation within the scope of the NAV2 and TRC projects undertaken by the Group in Uzbekistan also BSR project undertaken by the Group in Iraq.

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12. Investments in equity accounted investees

a) Joint agreements

i) Joint ventures

KÇLE

KÇLE was established as a joint venture with a joint agreement between ÇEDAŞ, Çalık Enerji and Limak Yatırım on 17 September 2012 with the participation of these three companies by 25%, 25% and 50%, respectively, in the share capital of KÇLE. On 8 May 2013, KÇLE purchased all shares of the state-owned enterprise namely Kompania Per Distribuim Dhe Fumizim Me Energji Elektrike SH.A ("KEDS") which is operating in electricity distribution and procurement in Kosovo for a consideration of US Dollar 29.038 (equivalent of EUR 26.300) within the scope of a tender in the privatisation process initiated by the Government of Republic of Kosovo.

As per Share Transfer Agreement dated 27 April 2015, Çalık Enerji acquired 1.250 number of shares of KÇLE with a nominal value of EUR 12 held by ÇEDAŞ for a total consideration of EUR 17.475, and increased its ownership percent from 25,00% to 50,00%

Doğu Aras

Doğu Aras was founded in accordance to energy market regulations as a joint venture with a joint agreement between ÇED and Kiler Alışveriş on 5 May 2013 with the participation of these two companies by 50% and 50%, respectively, for the purpose of establishing and participating to the companies that are engaged in distribution, retail and wholesale of electricity energy and/or capacity, assigning management of these established and participated companies, providing consultancy services on technical, financial, information processing and human resources management issues and making industrial and commercial investments through this companies.

On 28 June 2013, Doğu Aras purchased all shares of EDAŞ and EPAŞ which were state owned companies operating in electricity distribution and sales in cities Kars, Ardahan, Iğdır, Erzincan, Ağrı, Bayburt and Erzurum by paying an amount of US Dollar 128.500 as a result of a tender in the privatisation process. As at the reporting date, the Group has recognised an asset amounting to US Dollar 68.570 under "Equity accounted investees" (31 December 2018: US Dollar 36.484).

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12. Investments in equity accounted investees (continued)

LC Electricity

LC Electricity was established on 3 July 2014 in Serbia as a joint venture with a joint agreement between Türkmen Elektrik and Limak Yatırım with the participation of these two companies equally by 50%. The purpose of LC Electricity is trading electricity and sales/purchases of goods and services as part of this operation.

Investments in equity-accounted joint ventures and the Group's share of control are as follows:

	31 December 2019		31 December 2018	
Joint ventures-equity accounted	**Carrying value**	**% of ownership**	**Carrying value**	**% of ownership**
Assets				
KÇLE	100.831	50,00	87.628	50,00
Çalık Limak Adi Ortaklığı	524	50,00	1.063	50,00
Doğu Aras	68.570	50,00	36.484	50,00
LC Electricity	10	50,00	4	50,00
Total	**169.935**		**125.179**	

For the years ended 31 December, the movements in investments in equity accounted investees, net were as follows:

	2019	**2018**
Balance at 1 January	**125.179**	**108.652**
Share of profit of equity accounted investees	40.845	28.779
Translation differences	3.911	(12.252)
Balance at 31 December	**169.935**	**125.179**

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12. Investments in equity accounted investees (continued)

Summary financial information for equity accounted joint ventures was presented below:

							31 December 2019								
Company name	Reporting period	Ownership rates (%)	Current assets	Non-current assets	Total assets	Current liabilities	Non-current liabilities	Total liabilities	Net assets	Revenue	Total expenses	Profit/ (loss)	Group's share of net assets	Carrying amount	Group's share of profit/ (loss)
KÇLE (Joint venture) [1]	31 December	50,00	78.394	154.190	232.584	49.775	9.193	58.968	173.616	338.498	332.989	5.509	86.808	100.831	2.755
Doğu Aras (Joint venture) [1]	31 December	50,00	118.721	-	118.721	4.798	-	4.798	113.923	479.378	403.422	75.956	56.962	68.570	37.978
Çalık Limak Adı Ortaklığı A.Ş. (Joint venture)	31 December	50,00	3.312	-	3.312	3.309	-	3.309	3	8.661	8.437	224	10	524	112
LC Electricity (Joint venture)	31 December	50,00	-	-	-	-	-	-	-	-	-	-	-	10	-
Total														**169.935**	**40.845**

							31 December 2018								
Company name	Reporting period	Ownership rates (%)	Current assets	Non-current assets	Total assets	Current liabilities	Non-current liabilities	Total liabilities	Net assets	Revenue	Total expenses	Profit/ (loss)	Group's share of net assets	Carrying amount	Group's share of profit/ (loss)
KÇLE (Joint venture) [1]	31 December	50.00	75.907	147.070	222.977	44.877	2.843	47.720	175.257	353.124	341.104	12.020	87.629	87.628	6.010
Doğu Aras (Joint venture) [1]	31 December	50.00	85.038	172.016	257.054	96.462	76.646	173.108	83.946	484.911	44.388	41.973	41.973	36.484	22.194
Çalık Limak Adı Ortaklığı A.Ş. (Joint venture)	31 December	50.00	3.562	-	3.562	3.558	-	3.558	4	10.047	8.897	1.150	2	1.063	575
LC Electricity (Joint venture)	31 December	50.00	-	-	-	-	-	-	-	-	-	-	-	4	-
Total														**125.179**	**28.779**

[1] Consolidated financial information is presented.

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12. Investments in equity accounted investees (continued)

The following table summarises cash and cash equivalents, borrowings, depreciation and amortisation expenses, interest income and expenses and income tax expense of the joint ventures before consolidation eliminations and adjustments:

	31 December 2019						
	Cash and cash equivalents	Short term borrowings	Long term borrowings	Depreciation and amortisation	Interest income	Interest expense	Income tax expense
KÇLE	18.822	(90)	-	15.119	12	(775)	(2.019)
Doğu Aras	24.743	-	(114.589)	7.660	-	-	(7.446)
Çalık Limak Adi Ortaklığı	1.112	-	-	-	-	(5)	-
LC Electricity	-	-	-	-	-	-	-

	31 December 2018						
	Cash and cash equivalents	Short term borrowings	Long term borrowings	Depreciation and amortisation	Interest income	Interest expense	Income tax expense
KÇLE	11.462	(283)	-	14.090	-	(1.573)	-
Doğu Aras	5.554	-	(49.675)	13.187	3.257	(10.531)	(259)
Çalık Limak Adi Ortaklığı	688	-	-	2	-	(5)	-
LC Electricity	2	10	-	-	-	-	-

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13. Property, plant and equipment

During the years ended 31 December 2019 and 2018, movements of property, plant and equipment and related accumulated depreciation were as follows:

	Land and buildings	Machines and equipments	Vehicles	Furniture and fixtures	Leasehold improvements	Construction in progress (*)	Total
Cost							
Balance at 1 January 2018	**28.158**	**101.759**	**5.541**	**21.672**	**7.819**	**6.006**	**170.955**
Additions	2.911	2.953	4.154	7.752	95	733	18.598
Foreign currency differences	(1.155)	(28.139)	468	(927)	(3.512)	266	(32.999)
Disposals	-	-	(1.454)	(382)	(156)	(400)	(2.392)
Transfers	-	3.474	-	-	-	(3.474)	-
Balance at 31 December 2018	**29.914**	**80.047**	**8.709**	**28.115**	**4.246**	**3.131**	**154.162**
Balance at 1 January 2019	**29.914**	**80.047**	**8.709**	**28.115**	**4.246**	**3.131**	**154.162**
Additions	2.357	7.105	6.008	3.515	195	50	19.230
Foreign currency differences	4.807	(8.911)	788	(1.558)	304	181	(4.389)
Disposals	(5.653)	(800)	(600)	(4.287)	-	-	(11.340)
Transfers(*)	-	2.395	-	-	-	(2.395)	-
Balance at 31 December 2019	**31.425**	**79.836**	**14.905**	**25.785**	**4.745**	**967**	**157.663**

(*) Construction in progress are mainly related to investments for wind power plants of Çalık Rüzgar which are located in Sarpıncık and investments for solar power plants of Çalık Yenilenebilir Enerji A.Ş.

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13. Property, plant and equipment (continued)

During the years ended 31 December 2019 and 2018, movements of property, plant and equipment and related accumulated depreciation were as follows:

	Land and Buildings	Machines and equipments	Vehicles	Furniture and fixtures	Leasehold improvements	Construction in progress	Total
Accumulated depreciation							
Balance at 1 January 2018	**(7.248)**	**(9.076)**	**(2.500)**	**(13.514)**	**-**	**(2.240)**	**(34.578)**
Current year depreciation	(1.626)	(8.872)	(1.508)	(3.612)	(1.665)	-	(17.283)
Foreign currency differences	(124)	2.845	1.057	1.881	(1.374)	2.240	6.525
Disposal	-	-	-	-	-	-	-
Balance at 31 December 2018	**(8.998)**	**(15.103)**	**(2.951)**	**(15.245)**	**(3.039)**	**-**	**(45.336)**
Balance at 1 January 2019	**(8.998)**	**(15.103)**	**(2.951)**	**(15.245)**	**(3.039)**	**-**	**(45.336)**
Current year depreciation	(1.732)	(6.610)	(2.349)	(3.398)	(484)	-	(14.573)
Foreign currency differences	(3.568)	1.227	(798)	243	(425)	-	(3.321)
Disposal	5.653	800	600	4.118	-	-	11.171
Balance at 31 December 2019	**(8.645)**	**(19.686)**	**(5.498)**	**(14.282)**	**(3.948)**	**-**	**(52.059)**
Net carrying amount at 1 January 2018	**20.910**	**92.683**	**3.041**	**8.158**	**7.819**	**3.766**	**136.377**
Net carrying amount at 31 December 2018	**20.916**	**64.944**	**5.758**	**12.870**	**1.207**	**3.131**	**108.826**
Net carrying amount at 31 December 2019	**22.780**	**60.150**	**9.407**	**11.503**	**797**	**967**	**105.604**

As at 31 December 2019, the Group has no capitalised interest expense on property, plant and equipment (31 December 2018: None).

As at 31 December 2019, the Group has no property, plant and equipment acquired through finance lease contracts (31 December 2018: None).

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14. Intangible assets

During the years ended 31 December 2019 and 2018, movements of intangible assets and related accumulated amortisation were as follows:

	Licences & software	Electric distribution rights	Other intangibles	Total
Cost				
Balance at 1 January 2018	**13.365**	**132.313**	**1.086**	**146.764**
Additions	107	-	79	186
Disposals	-	-	-	-
Translation difference	(3.782)	(37.448)	(308)	(41.538)
Balance at 31 December 2018	**9.690**	**94.865**	**857**	**105.412**
Balance at 1 January 2019	**9.690**	**94.865**	**857**	**105.412**
Additions	87	-	-	87
Disposals	(2)	-	-	(2)
Translation difference	(1.014)	(10.849)	2.167	(9.696)
Balance at 31 December 2019	**8.761**	**84.016**	**3.024**	**95.801**

Accumulated amortization	Licences & software	Electric distribution rights	Other intangibles	Total
Balance at 1 January 2018	**(9.766)**	**(35.651)**	**(597)**	**(46.014)**
Current year amortization	(157)	(3.974)	(135)	(4.266)
Disposals	-	-	-	-
Translation difference	2.777	10.416	177	13.370
Balance at 31 December 2018	**(7.146)**	**(29.209)**	**(555)**	**(36.910)**
Balance at 1 January 2019	**(7.146)**	**(29.209)**	**(555)**	**(36.910)**
Current year amortization	(595)	(3.385)	(108)	(4.088)
Disposals	(1)	-	-	(1)
Translation difference	(371)	3.517	(1.628)	1.518
Balance at 31 December 2019	**(8.113)**	**(29.077)**	**(2.291)**	**(39.481)**
Net carrying amount at 1 January 2018	**3.599**	**96.662**	**489**	**100.750**
Net carrying amount at 31 December 2018	**2.544**	**65.656**	**302**	**68.502**
Net carrying amount at 31 December 2019	**648**	**54.939**	**733**	**56.320**

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15. Other assets and liabilities

Other current assets

As at 31 December 2019 and 2018, other current assets comprised the following:

	31 December 2019	31 December 2018
Deferred VAT	10.389	14.946
Advance payments to employee	-	1.380
Other current assets	896	867
	11.285	**17.193**

Other current liabilities

As at 31 December 2019 and 2018, other current liabilities comprised the following:

	31 December 2019	31 December 2018
Taxes and funds payable	13.779	9.614
Other liabilities	6.962	15.207
	20.741	**24.821**

16. Due from/due to customers for contract works

Due from customers for contract work and due to customers for contract work were included in the accompanying consolidated statement of financial position under the following captions:

	2019	2018
Due from customers for contract works	2.453	12.880
Due to customers for contract works	(38.410)	(72.378)
Total	**(35.957)**	**(59.498)**

As at 31 December, the details of uncompleted contracts were as follows:

	2019	2018
Total costs incurred on uncompleted contracts	1.361.103	1.213.369
Estimated earnings	701.995	602.760
Total estimated revenue on uncompleted contracts	**2.063.098**	**1.816.129**
Less: Billings to date	(2.099.055)	(1.875.627)
Net amounts due to/from customers for contract work	**(35.957)**	**(59.498)**

Revenue recognised in the reporting period that was included in the contract liability balance at the beginning of the period is amounting to USD 5.243 .

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17. Loans and borrowings

As at 31 December 2019 and 2018, loans and borrowings comprised the following:

Short term loans and borrowings	**31 December 2019**	**31 December 2018**
Short term bank loans	106.395	32.436
- USD denominated bank loans	*63.440*	*5.696*
- Foreign currency denominated bank loans	*42.955*	*26.740*
Short term portion of long term bank loans	91.020	61.826
- USD denominated bank loans	*48.633*	*48.239*
- Foreign currency denominated bank loans	*42.387*	*13.587*
Short term portion of long term bonds issued	-	29.999
Short term lease payables	1.693	-
Total	**199.108**	**124.261**
Long term bank loans	91.337	173.967
- USD *denominated bank loans*	-	*141.446*
- Foreign currency denominated bank loans	*91.337*	*32.521*
Long term bonds issued	-	-
Long term lease payables	2.683	-
	94.020	**173.967**
Total	**293.128**	**298.228**

At 31 December 2019 and 2018, the terms and conditions of outstanding loans and borrowings were as follows:

		31 December 2019			
	Currency	**Nominal interest rate (%)**	**Maturity**	**Nominal amount**	**Carrying amount**
Secured bank loans	USD	Rotatif	2020	4.764	4.763
Secured bank loans	USD	USD Libor+%4,00	2020	13.554	13.212
Secured bank loans	USD	6,08	2020	36.561	35.421
Secured bank loans	EUR	0,53-4,9	2022-2031	20.239	20.100
Secured bank loans	TL	17,88	2023	4.387	3.364
Unsecured bank loans	USD	3,66-7,56	2020	59.859	59.429
Unsecured bank loans	EUR	6,79	2020	11.279	11.265
Unsecured bank loans	TL	Rotatif	2020	4.630	4.338
Unsecured bank loans	TL	17,00-20,70	2020-2024	138.925	136.860
				294.198	**288.752**

		31 December 2018			
	Currency	**Nominal interest rate (%)**	**Maturity**	**Nominal amount**	**Carrying amount**
Bonds issued	TL	18,88	2019	30.458	29.999
Secured bank loans	USD	USD Libor+%4	2020	23.264	21.963
Secured bank loans	USD	Spot	2019	15.425	15.178
Secured bank loans	EUR	0,64-4,96	2022-2031	24.244	24.145
Secured bank loans	TL	15,75-17,94	2023-2024	289.523	189.685
Unsecured bank loans	TL	Rotatif	2019	6.574	5.696
Unsecured bank loans	USD	Rotatif	2019	9.031	8.675
Unsecured bank loans	Uzbekistani Som	14,00	2019	2.929	2.887
				401.448	**298.228**

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17. Loans and borrowings (continued)

There are 1st and 2nd degree mortgages on Çalık Holding's administrative building which is owned by GAP İnşaat Yatırım ve Dış Ticaret A.Ş and Çalık Gayrimenkul Ticaret A.Ş, amounting to US Dollar 20.000 and US Dollar 80.000 for the bank borrowings used by Çalık Group entities including the bank borrowings used by Çalık Enerji.

There are pledges over Çalık Enerji's shares of YEDAŞ, YEPAŞ and ÇEDAŞ with numbers of 85 (TL 0,085 thousands), 115 (TL 0,115 thousands), 377.622.000 (TL 377.622 thousands), respectively and ÇEDAŞ's shares of YEPAŞ and YEDAŞ, with numbers of 6.358.770.388 (TL 63.587 thousands) and 35.700.685.312 (TL 357.006 thousands), as a guarantee for the bank borrowings used or will be used by Çalık Holding, ÇEDAŞ, YEDAŞ and YEPAŞ from a bank.

The Group has financial covenants within US Dollar denominated murabaha loan contracts with foreign banks. Breaches in meeting the financial covenants would permit the bank to immediately call loans and borrowings. There have been no breaches of the financial covenants of any interest-bearing loans and borrowing in the current period.

As at 31 December 2019 and 2018, maturity profile of the bank borrowings is as follows

	31 December 2019	31 December 2018
Due within one year	197.415	94.262
One to two years	33.694	86.082
Two to three years	26.205	31.965
Three to four years	18.806	25.322
Over four years	12.632	30.598
Total	**288.752**	**268.229**

As at 31 December 2019 and 2018, maturity profile of the issued bond is as follows

	31 December 2019	31 December 2018
Due within one year	-	29.999
One to two years	-	-
Total	**-**	**29.999**

The Group's exposure to liquidity and currency risks related to borrowings are disclosed in Note 28.

Cash flows from financing activities and reconciliation of their movements

The movement of the Group's financial liabilities arising from financing activities for the year ended 31 December 2019 and 2018 are as follows:

	2019	2018
Loans and issued bonds as of January 1	**298.228**	**336.591**
Current period additions	108.944	80.404
Interest and capital repayments	(91.201)	(49.490)
Current period interest accruals	19.984	5.879
Effects of changes in foreign exchange rates	(42.827)	(75.156)
Loans and issued bonds as of December 31	**293.128**	**298.228**

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18. Payables related to employee benefits

As at 31 December 2019 and 2018, payables related to employee benefits comprised the following:

	31 December 2019	31 December 2018
Social security premiums payable	1.107	1.149
Due to personnel	4.074	3.817
	5.181	**4.966**

19. Provisions

As at 31 December, provisions comprised the following items:

	31 December 2019	31 December 2018
Short term provisions		
Short term employee benefits	1.392	1.508
Other short term provisions	11.910	8.044
Total short term provisions	**13.302**	**9.552**
Long term provisions		
Long term employee benefits	2.607	2.688
Total short term provisions	**2.607**	**2.688**
Total provisions	**15.909**	**12.240**

As at 31 December, short-term and long term employee benefits comprised the following items:

	31 December 2019	31 December 2018
Short-term		
Vacation pay liability	1.392	1.508
	1.392	**1.508**
Long term		
Reserve for severance payments	2.607	2.688
	2.607	**2.688**

As at 31 December, other provisions comprised the following items:

Short-term	31 December 2019	31 December 2018
Provision for litigation and claims	11.910	8.044
	11.910	**8.044**

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19. Provisions (continued)

Movement of provisions for the years ended at 31 December 2019 and 2018 is as follows:

2019	1 January	Provision for the year	Cancelled Provisions Payments / Actuarial differences in current period	Translation difference	31 December
Provision for litigation and claims	8.044	4.452	-	(586)	11.910
Vacation pay liability	1.508	-	(94)	(22)	1.392
Reserve for severance payments	2.688	969	(1.238)	188	2.607
	12.240	**5.421**	**(1.332)**	**(420)**	**15.909**
2018					
Provision for litigation and claims	8.261	2.122	-	(2.339)	8.044
Vacation pay liability	1.788	285	(60)	(505)	1.508
Reserve for severance payments	2.456	1.656	(729)	(695)	2.688
	12.505	**4.063**	**(789)**	**(3.539)**	**12.240**

Reserve for severance payments

For the years ended 31 December 2019 and 2018, the movements in the reserve for severance payments were as follows:

	2019	2018
Balance at the beginning of the year	**2.688**	**2.456**
Interest cost	320	1.402
Cost of services	649	255
Payments during the year	(1.677)	(157)
Actuarial difference	439	(573)
Translation difference	188	(695)
Balance at the end of the year	**2.607**	**2.688**

The reserve has been calculated by estimating the present value of future probable obligation of the Group arising from the retirement of the employees.

Actuarial valuation methods were developed to estimate the Group's obligation under defined benefit plans. Accordingly, the following actuarial assumptions were used in the calculation of the total liability:

	2019	2018
	%	%
Discount rate	3,60	4,09
Interest rate	12,10	14,5
Expected rate of salary/limit increase	14,00	10,0
The range of turnover rate to estimate the probability retirement	6,05	1,0-6,0

The computation of the liability is predicated upon retirement pay ceiling announced by the Government. As at 31 December 2019, the ceiling amount was US Dollar 1.07 (31 December 2018: US Dollar 1.03).

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20. Commitments and contingencies

Guarantee, pledge and mortgages ("GPM") given as at 31 December 2019 are as follows:

31 December 2019		**Original currency (in thousands)**			
	USD equivalent	**TL**	**USD**	**EURO**	**OTHER**
A Total amount of GPMs given in the name of its own legal personality	74.244	143.668	42.225	7.000	-
B Total amount of GPMs given in the name of the consolidated subsidiaries and joint ventures	134.375	798.215	-	-	-
- Total amount of GPMs given in the name of the consolidated subsidiaries	*134.375*	*798.215*	-	-	-
C Total amount of GPMs given to be able to conduct ordinary business transactions to secure payables of third parties	-	-	-	-	-
D Other GPMs given	-	-	-	-	-
Total	**208.619**	**941.883**	**42.225**	**7.000**	

The ratio of the Group's GPM to the Group's equity is 34%.

GPMs given as at 31 December 2018 are as follows:

31 December 2018		**Original currency (in thousands)**			
	USD equivalent	**TL**	**USD**	**EURO**	**OTHER**
A Total amount of GPMs given in the name of its own legal personality	137.418	215.286	90.996	4.800	-
B Total amount of GPMs given in the name of the consolidated subsidiaries and joint ventures	151.727	798.215	-	-	-
- Total amount of GPMs given in the name of the consolidated subsidiaries	*151.727*	*798.215*	-	-	-
C Total amount of GPMs given to be able to conduct ordinary business transactions to secure payables of third parties	-	-	-	-	-
D Other GPMs given	-	-	-	-	-
Total	**289.145**	**1.013.501**	**90.996**	**4.800**	**-**

The ratio of the Group's GPM to the Group's equity is 44%.

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20. Commitments and contingencies (continued)

Details of the commitments and contingent liabilities arising in the ordinary course of the business of the Group comprised the following items as at 31 December:

	31 December 2019	31 December 2018
TETAŞ and TEİAŞ	21.461	28.790
Given to government agencies for the ongoing EPC contracts	50.062	72.641
Given to banks	-	934
Given to EMRA	41	320
Given to others	2.680	34.734
Total letter of guarantees	**74.244**	**137.419**
Pledge on shares (*)	134.375	151.726
Total contingent liabilities	**208.619**	**289.145**

(*) There are pledges over Çalık Enerji's shares of YEDAŞ, YEPAŞ and ÇEDAŞ with numbers of 85 (TL 0,085 thousands), 115 (TL 0.115 thousands), 377.622.000 (TL 377.622 thousands), respectively and ÇEDAŞ's shares of YEPAŞ and YEDAŞ, with numbers of 6.358.770.388 (TL 63.587 thousands) and 35.700.685.312 (TL 357.006 thousands), as a guarantee for the bank borrowings used or will be used by Çalık Holding, ÇEDAŞ, YEDAŞ and YEPAŞ from a bank.

Litigation and claims

As at 31 December 2019, the expected cash outflow amount for the pending claims filed against to the Group is US Dollar 11.910 (31 December 2018: US Dollar 8.044). As at 31 December 2019, the provision for litigation and claims are mainly related to the Group's electricity retail sales companies regarding electricity dissipation and theft lawsuits of consumers. The Group made a provision for the whole amount related to these claims (Note 19).

Pending tax audits

In Turkey, the tax and other government authorities (Social Security Institution) have the right to inspect the Group's tax returns and accounting records for the past five fiscal years. The Group has not recorded a provision for any additional taxes for the fiscal years that remained unaudited, as the amount cannot be estimated with any degree of uncertainty. The Group's management believes that no material assessment will arise from any future inspection for unaudited fiscal years.

Letter of guarantees received

As of 31 December 2019, the Group has received letter of guarantees amounting to US Dollar 42.225 from its customers and suppliers (31 December 2018: US Dollar 35.215).

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21. Taxation

Turkey

Corporate income tax is levied on the statutory corporate income tax base, which is determined by modifying income for certain tax exclusions and allowances.

In Turkey, corporate tax rate is 22% as of 31 December 2019 (2018: 20%). According to the Article 91 of the Law numbered 7061 "Legislation on Amendment of Certain Tax Legislation and Other Certain Legislation" which was published on the Official Gazette numbered 30261 on 5 December 2018 and according to the provisional clause 10 added to the Corporate Tax Law numbered 5520; corporate tax rate for the taxation periods of 2019 and 2020 is amended to 22%, which would later be applied as 20% at the end of these periods. During these periods, Council of Ministers is entitled to decrease the corporate tax rate of 22% to 20%.

The tax legislation provides for a temporary tax of 22% (2018: 20%) to be calculated and paid based on earnings generated for each quarter for the period ended 31 December 2019. The amounts thus calculated and paid are offset against the final corporate tax liability for the year. With the amendment to the Law, corporate rate is set to 22% for the years 2019 and 2020.

According to the Corporate Tax Law, 75% (2018: 75%) of the capital gains arising from the sale of properties and investments owned for at least two years are exempted from corporate tax on the condition that such gains are reflected in the equity with the intention to be utilized in a share capital increase or kept under equity as restricted funds within five years from the date of the sale. The remaining 25% of such capital gains are subject to corporate tax. In addition, with the change of the law numbered 7061, the ratio regarding the real estate decreased from 75% to 50%, and this ratio will be applied as 50% starting from the 2018 tax declarations.

There is also a withholding tax on the dividends paid and is accrued only at the time of such payments. According to the amendments in the tax legislations, which became effective from 24 April 2003, dividends that are paid to the shareholders from the profits of the years between 1999 and 2002 are immune from the withholding tax, if such profits are exempted from corporation tax bases of the companies. As per the decision no.2006/10731 of the Council of Ministers published in the Official Gazette no.26237 dated 23 July 2006, certain duty rates included in the articles no.15 and 30 of the new Corporate Tax Law no:5520 revised.

Accordingly, the withholding tax rate on the dividend payments other than the ones paid to the non resident institutions generating income in Turkey through their operations or permanent representatives and the resident institutions, was increased from 10% to 15%. In applying the withholding tax rates on dividend payments to the non resident institutions and the individuals the withholding tax rates covered in the related Double Tax Treaty Agreements are taken into account.

In Turkey, the tax legislation does not permit a parent company and its subsidiaries to file a consolidated tax return. Therefore, provision for taxes shown in the consolidated financial statements reflects the total amount of taxes calculated on each entity that are included in the consolidation.

Under the Turkish taxation system, tax losses can be carried forward to be offset against future taxable income for up to five years. Tax losses cannot be carried back.

In Turkey, there is no procedure for a final and definitive agreement on tax assessments. Companies file their tax returns within four months following the close of the accounting year to which they relate. Tax returns are open for five years from the beginning of the year that follows the date of filing during which time the tax authorities have the right to audit tax returns, and the related accounting records on which they are based, and may issue reassessments based on their findings.

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21. Taxation (continued)

Transfer pricing regulations

In Turkey, the transfer pricing provisions have been stated under the Article 13 of Corporate Tax Law with the heading of "disguised profit distribution via transfer pricing". The General Communiqué on disguised profit distribution via Transfer Pricing, dated 18 November 2007 sets details about implementation.

If a tax payer enters into transactions regarding sale or purchase of goods and services with related parties, where the prices are not set in accordance with arm's length principle, then related profits are considered to be distributed in a disguised manner through transfer pricing. Such disguised profit distributions through transfer pricing are not accepted as tax deductible for corporate income tax purposes.

Tax applications for foreign subsidiaries and joint ventures of the Group

Republic of Kosovo

The applicable corporate tax rate in Republic of Kosovo is 10% (31 December 2018: 10%).

Under Kosovo tax legislation system, tax losses can be carried forward to be offset against future taxable income for up to seven years.

Republic of Iraq

As at 31 December 2019, the applicable corporate tax rate for the subsidiaries and branches operating in Iraq is 15% (31 December 2018: 15%). Tax losses can be carried forward to be offset against future taxable income for up to five years to the extent of the half of the current year profit when the financial profit is reported. As at 31 December 2019 and 2018, profit generated from Group's operations in Iraq is not subject to corporate tax.

United Arab Emirates

As at 31 December 2019, the Group has a subsidiary and branches in the United Arab Emirates located in Dubai. There is no federal corporate tax in United Arab Emirates. However, similar taxes are implemented in different sectors in different emirates. As at 31 December 2019 and 2018, the Group's subsidiary operating in Dubai is not subject to corporate tax.

Georgia

The applicable corporate tax rate in Georgia is 15%

Libya

The corporate tax rate is 20% (31 December 2018: 20%). In addition to the 20% tax rate, a Jihad tax is levied by 4% of profits for foreign companies.

Turkmenistan

According to Turkmenistan law, while the corporate tax rate is 8% for local companies, it is 20% for branches of foreign companies and for local companies which have foreign partners. Parent company of branches located in Turkmenistan is tax-exempt due to income generated from construction projects outside Turkey is tax exempt in Turkey. Besides, revenue arising from sales of machinery and equipment which are exported from Turkey and included in construction cost in those countries are subject to corporate tax in Turkey.

Serbia

The applicable corporate tax rate in Serbia is 15%.

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21. Taxation (continued)

Tax applications for foreign subsidiaries and joint ventures of the Group (continued)

Uzbekistan

The applicable corporate tax rate in Uzbekistan is 17,2%. As at 31 December 2019, the Group is not subject to corporate tax resulting from their operations in the country with a dispensation between the Group and Uzbekistani government.

Iran

The applicable corporate tax rate in Iran is 25%.

The Netherlands

Corporate income tax is levied at the rate of 25% (31 December 2018: 25%) on the worldwide income of resident companies, which is determined by modifying accounting income for certain exclusions and allowances for tax purposes. A unilateral decree for the avoidance of double taxation provides relief for resident companies from Dutch tax on income, such as foreign business profits derived through a permanent establishment abroad, if no tax treaty applies.

Under the Dutch taxation system, tax losses can be carried forward to be offset against future taxable income for nine years. Tax losses can be carried back to offset profits up to one year. Companies must file their tax returns within six months following the close of the tax year to which they relate, unless the company applies for an extension (normally an additional nine months). Tax returns are open for five years from the date of final assessment of the tax return during which time the tax authorities have the right to audit tax returns, and the related accounting records on which they are based, and may issue reassessments based on their findings.

Malawi

The Corporate income tax rate in Malawi is 30% for local entities whereas tax rate is 35% for foreign entities and those operating as branches of foreign entities. As at 31 December 2019, the Group's subsidiary operating in Malawi is not subject to corporate tax while the income resulting from their operations in the country are accepted as tax-exempt.

Tax recognised in profit or loss

Income tax expense for the years ended 31 December 2019 and 2018 comprised the following items:

	2019	2018
Current corporation and income taxes	23.196	12.933
Deferred taxes on temporary differences	(11.553)	12.489
Deferred taxes on prior years' tax losses	-	353
Total income tax expense	**11.643**	**25.775**

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21. Taxation (continued)

Reconciliation of effective tax rate

The reported income tax expense for the years ended 31 December 2019 and 2018 are different than the amounts computed by applying statutory tax rate to profit before tax as shown in the following reconciliation:

	2019 Amount	2018 Amount
Reported profit before taxation	209.001	239.372
Taxes on reported profit per statutory tax rate	(45.980)	(48.350)
Permanent differences:		
Disallowable expenses	(3.519)	(2.735)
Tax exempt income (*)	49.861	52.870
Effect of different tax rates in foreign jurisdictions	-	(70)
Effect of share of profit of equity-accounted investees	8.354	5.697
Losses for fiscal years	8.610	(30.401)
Tax effect of consolidated adjustments	(30.053)	(803)
Effect of change in tax rate	-	(1.941)
Others, net	1.084	(42)
Tax expense	**(11.643)**	**(25.775)**

(*) Related amount consist of profits generated by foreign branches of the Group which are not subject to corporate tax.

Taxes payable on income

Taxes payable on income as of 31 December 2019 and 2018 comprised the following:

	2019	*2018*
Taxes on income	11.643	25.775
Deferred tax benefit/(expense)	11.553	(12.842)
Corporation taxes paid in advance	(23.140)	(12.866)
Taxes asset on income, net	**56**	**47**

As at 31 December 2019, taxes payable on income amounting to US Dollar 210 (31 December 2018: US Dollar 2) is not offset with prepaid taxes amounting to US Dollar 266 (31 December 2018: US Dollar 49) since they are related to different tax jurisdictions.

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21. Taxation (continued)

Deferred tax assets and liabilities

Deferred tax is provided in respect of taxable temporary differences arising between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes, except for the differences relating to goodwill not deductible for tax purposes and the initial recognition of assets and liabilities which affect neither accounting nor taxable profit.

Unrecognised deferred tax assets and liabilities

As at 31 December 2019, deferred tax assets amounting to US Dollar 32.027 (31 December 2018: US Dollar 31.007) have not been recognised with respect to the statutory tax losses carried forward up to 2024. Deferred tax assets have not been recognised in respect of these items because it is not probable that future taxable profit will be available against which the Group can utilise the benefits therefrom.

According to the Tax Procedural Law in Turkey, statutory losses can be carried forward maximum for five years. Consequently, 2024 is the latest year for recovering the deferred tax assets arising from such tax losses carried forward. The table below shows the expiration date of the tax losses carried forward:

Date of expiration	2019	2018
2019	-	5.525
2020	1.484	1.484
2021	4.870	4.870
2022	9.973	9.973
2023	127.544	127.544
2024	1.984	-
	145.855	**149.396**

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21. Taxation (continued)

Deferred tax assets and liabilities *(continued)*

Recognised deferred tax assets and liabilities

According to the Article 91 of the Law numbered 7061 "Legislation on Amendment of Certain Tax Legislation and Other Certain Legislation" which was published on the Official Gazette numbered 30261 on 5 December 2018 and according to the provisional clause 10 added to the Corporate Tax Law numbered 5520; corporate tax rate for the taxation periods of 2019 and 2020 is amended to 22%, which would later be applied as 20% at the end of these periods. Deferred tax assets and liabilities are recognized in the consolidated financial statements as of 31 December 2019 at a rate of %22 for the portion of temporary differences that will have tax effect in 2019 and 2020 and %20 for temporary differences in 2021 and later.

Since companies in Turkey can not file a tax return, subsidiaries that have deferred tax assets are not netted off with subsidiaries that have deferred tax liabilities and are shown separately.

Recognised deferred tax assets and liabilities

Deferred tax assets and deferred tax liabilities at 31 December 2019 and 2018 are attributable to the items detailed in the table below:

	2019		2018	
	Asset	**Liability**	**Asset**	**Liability**
Vacation pay liability	253	-	260	-
Employee severance indemnity	82	-	74	(1)
Provision for litigations	783	-	1.628	-
Other expense provisions	-	-	-	(2.587)
IAS 39 effect on borrowings	152	(13)	2.374	(19)
Property, plant and equipment and intangible assets	48.532	(133)	54.428	(738)
Security deposits	3.001	-	2.994	-
Tax losses carried forward	-	-	1.133	-
Effect of percentage of completion method	1.837	-	513	-
Service concession receivables	-	(61.554)	-	(80.625)
Doubtful receivables	1.704	-	1.204	-
Deferred income	-	(483)	-	(845)
Other temporary differences	281	(1.719)	396	-
Total deferred tax assets/(liabilities)	**56.625**	**(63.902)**	**65.004**	**(84.815)**
Set off of tax	(49.354)	49.354	(61.296)	61.296
Deferred tax assets/(liabilities), net	**7.271**	**(14.548)**	**3.708**	**(23.519)**

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21. Taxation (continued)

Movements in deferred tax balances during the year:

	Balance 1 January 2018	*Effects of translation*	*Recognised in profit or loss*	*Balance 31 December 2018*	*Effects of translation*	*Recognised in profit or loss*	*Balance 31 December 2019*
Vacation pay liability	376	(181)	65	260	(18)	11	253
Employee severance indemnity	107	936	(970)	73	(2)	11	82
Provision for litigations	1.626	470	(468)	1.628	(139)	(706)	783
Other expense provisions	(301)	(1.655)	(631)	(2.587)	-	2.587	-
Amortised cost effect on borrowings	13	2.245	97	2.355	(259)	(1.957)	139
Property, plant and equipment and intangible assets	63.436	(28.331)	18.585	53.690	(6.150)	859	48.399
Security deposits	2.890	671	(567)	2.994	(342)	349	3.001
Tax losses carried forward	673	1.826	(1.366)	1.133	(130)	(1.003)	-
Provision for expenses	-	-	-	-	293	1.544	1.837
Effect of percentage of completion method	1.982	(6.537)	5.068	513	-	(513)	-
Service concession receivables	(82.953)	34.236	(31.908)	(80.625)	8.832	10.239	(61.554)
Doubtful receivables	1.259	(98)	43	1.204	(55)	555	1.704
Deferred income	-	63	(908)	(845)	-	362	(483)
Other temporary differences	(369)	647	118	396	(1.049)	(785)	(1.438)
Total deferred tax assets/(liabilities)	**(11.261)**	**4.292**	**(12.842)**	**(19.811)**	**981**	**11.553**	**(7.277)**

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22. Capital and reserves

Paid in capital

At 31 December 2019, the Company's statutory nominal value of authorised and paid-in share capital is US Dollar 79.975 (31 December 2018: US Dollar 79.975) comprising of 10.891.705.225 registered shares (31 December 2018: 10.891.705.225) having per value of US Dollar 0,00734 (31 December 2018: US Dollar 0,00538) nominal each.

At 31 December 2019 and 2018, the shareholding structure of Çalık Enerji based on the number of shares is presented below:

	2019 Thousands of shares	*%*	***2018*** Thousands of shares	*%*
Çalık Holding	10.393.195	95,42	10.393.195	95,42
Kırmızı Elmas Enerji ve Altyapı Yatırımları A.Ş.	487.591	4,48	487.591	4,48
Ahmet Çalık	10.919	0,10	10.919	0,10
	10.891.705	**100,00**	**10.891.705**	**100,00**

Legal reserves

The legal reserves are established by annual appropriations amounting to 5% of income disclosed in the Group's statutory accounts until it reaches 20% of paid-in share capital (first legal reserve). Without limit, a further 10% of dividend distributions in excess of 5% of share capital is to be appropriated to increase legal reserves (second legal reserve). The first legal reserve is restricted and is not available for distribution as dividend unless it exceeds 50% of share capital. As of 31 December 2019, 75% of the gain on sale of financial investments are exempted from corporate tax on the condition that such gains are recognised in the restricted reserves within the equity for the five years. In the accompanying consolidated financial statements as of 31 December 2019, the total of the legal reserves of the consolidated entities amounted to US Dollar 213.318 as at 31 December 2019 (31 December 2018: US Dollar 177.715).

Dividends

As per the General Assembly Meeting dated on 25 March 2019, the Company has distributed dividend to its shareholders amounting to US Dollar 223.335 from retained earnings.

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22. Capital and reserves (continued)

Non-controlling interest

For the years ended 31 December 2019 and 2018, movements of the non-controlling interest were as follows:

	2019	2018
Non controlling interest at the beginning of the year	**3.788**	**58.042**
Impact of change in accounting policies and other changes	-	(58.338)
Net loss for the year attributable to non controlling interest	491	90
Foreign currency translation differences for foreign operations	(2.435)	35
Contribution to share capital increase of subsidiaries by non-controlling interests	-	3
Establishment of subsidiaries with non controlling interests	-	4.070
Dividend distribution	(93)	(114)
Balance at the end of the year	**1.751**	**3.788**

Translation reserve

The translation reserve comprises all foreign exchange differences arising from the translation of the financial statements of foreign operations and the conversion of the Company's functional currency to presentation currency.

23. Revenue

For the years ended 31 December 2019 and 2018, revenue comprised the following:

	2019	2018
Export sales	259.080	555.493
Domestic sales	488.559	554.436
Total	**747.639**	**1.109.929**

For the years ended 31 December 2019 and 2018, details of the revenue comprised the following:

	2019	2018
Electricity sale and distribution	477.145	554.457
EPC	259.080	554.436
Other operations	11.414	1.036
Total	**747.639**	**1.109.929**

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24. Operating expenses

For the years ended 31 December 2019 and 2018, administrative expenses comprised the following:

	2019	2018
Personnel expenses	18.568	16.088
Outsource expenses (*)	4.805	5.209
Depreciation and amortisation expenses	4.109	1.315
Communication and information expenses	3.762	2.960
Taxes, duties and fees	2.341	826
Rent expense	1.074	3.276
Insurance expenses	1.070	784
Consulting expenses	1.052	4.007
Travel and accommodation expenses	978	725
Accommodation expenses	652	953
Other	3.183	2.837
	41.594	**38.980**

(*) Outsource expenses comprise of expenses made by Çalık Holding on behalf of Çalık Enerji.

For the years ended 31 December 2019 and 2018, selling, marketing and distribution expenses comprised the following:

	2019	2018
Personnel expenses	8.242	8.829
Electricity supply expense	1.461	2.392
Office expenses	1.215	3.015
System maintenance expense	330	345
Communication and information expenses	307	327
Other	3.744	3.996
	15.299	**18.904**

For the years ended 31 December 2019 and 2018, research and development expenses comprised the following:

	2019	2018
Consulting expenses	3.828	424
Personnel expenses	2.239	1.880
Travel and accommodation expenses	1.368	1.312
Rent expense	13	49
Other	662	858
	8.110	**4.523**

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24. Operating expenses (continued)

For the years ended 31 December 2019 and 2018, the total operating expenses by nature comprised the following:

	2019	2018
Materials and trading goods expenses	412.167	693.255
Personnel expenses	81.534	86.065
Depreciation and amortisation expenses	20.246	21.550
Maintenance and repair expenses	9.473	3.432
Consulting expenses	5.825	1.711
Outsource expenses	4.815	5.225
Communication and information expenses	4.052	4.353
Taxes, duties and fees	3.731	2.238
Travel and accommodation expenses	3.255	2.147
Rent expenses	2.701	5.936
Insurance expenses	1.663	1.140
Electricity supply expense	1.461	2.392
Other	14.869	16.491
	565.792	**845.935**

For the years ended 31 December 2019 and 2018, depreciation and amortisation expenses comprised the following:

Depreciation and amortisation expenses	2019	2018
Cost of goods sold	15.987	20.119
General administrative expenses	4.109	1.315
Selling, marketing and distribution expenses	83	3
Research and development expenses	67	113
	20.246	**21.550**

For the years ended 31 December 2019 and 2018, personnel expenses comprised the following:

Personnel expenses	2019	2018
Salaries, payments and bonuses	55.744	68.728
Mandatory social security premiums	6.045	6.551
Other	19.745	10.786
	81.534	**86.065**

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25. Other income and expense from operating activities

For the years ended 31 December 2019 and 2018, other operating income comprised the following:

	2019	2018
Foreign exchange gains	17.966	160.695
Incentive gains	2.116	858
Penalty and indemnity gains	1.233	2.469
Gains from services to joint ventures	1.151	-
Letter of guarantee gains	611	-
Insurance damage gains	235	-
Profit on sale of marketable securities	-	3.125
Other	8.889	5.576
	32.201	**172.723**

For the years ended 31 December, other operating expenses comprised the following:

	2019	2018
Foreign exchange losses	10.861	180.271
Provision expenses	4.452	741
Insurance damage losses	267	269
Land lease losses	241	260
Interest expenses (due to third parties)	26	6
Other	10.649	2.549
	26.496	**184.097**

26. Gain and losses from investing activities and IFRS 9 impact

For the years ended 31 December 2019 and 2018, income from investing activities comprised the following:

	2019	2018
Gain on sale of property, plant and equipment	43	658
Fair value difference arising from financial investments	5.663	-
	5.706	**658**

For the years ended 31 December 2019 and 2018, losses from investing activities comprised the following:

	2019	2018
Loss on sale of property, plant and equipment	1	445
Loss on other investing activities	-	321
	1	**766**

For the years ended 31 December 2019 and 2018, losses and gains from IFRS 9:

	2019	2018
Provision from doubtful receivables (Note 8)	7.195	7.940
Collection from doubtful trade receivables (Note 8)	(3.883)	(4.527)
	3.312	**3.413**

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27. Finance income/(costs)

For the years ended 31 December finance income comprised the following:

	2019	2018
Interest income from related parties	12.944	3.033
Other interest income	9.205	4.315
Foreign exchange gains on borrowings	503	35.773
	22.652	**43.121**

For the years ended 31 December, finance costs comprised the following:

	2019	2018
Interest expense due to related parties	12.638	7.146
Short and long term interest expenses from borrowings	11.885	16.090
Foreign exchange loss on borrowings	9.826	40.562
Letter of guarantees commission expenses	2.708	9.610
Bank commission expenses	2.408	2.763
Other interest expenses	1.093	930
	40.558	**77.101**

28. Financial instruments – Fair values and risk management

Financial risk management

Overview

The Group has exposure to the following risks from its use of financial instruments:

- credit risk
- liquidity risk
- market risk

This note presents information about the Group's exposure to each of the above risks, the Group's objectives, policies and processes for measuring and managing risks, and the Group's management of capital. Further quantitative disclosures are included throughout these consolidated financial statements.

Risk management framework

Risk management activities are conducted by a realistic organizational structure and it is fully supported with the commitment of top management.

The Group acts proactively in terms of risk management in order to ensure that its business operations in different industries and regions are not adversely affected as a result of market, operational, liquidity and counterparty risks. Risk Management and internal audit departments within each sector and at the Group level provide and maintain awareness for different types of risks, including emerging risks, and ensure that appropriate risk management mechanisms are in place.

Credit risk:

Credit risk is the risk of financial loss to the Group if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and arises principally from the Group's receivables from customers.

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28. Financial instruments – Fair values and risk management (continued)

The Group's principal financial assets are cash and cash equivalents, financial investments, trade receivables and other receivables. The Group requires a certain amount of collateral in respect of its account receivable. Credit evaluations are performed on all customers requiring credit over a certain amount on individual level.

At reporting date, there were no significant concentrations of credit risk. The maximum exposure to credit risk is represented by the carrying amount of each financial asset in the consolidated statement of financial position.

The maximum exposure to credit risk for trade receivables at the reporting date by geographic concentration was as follows:

Location	31 December 2019	31 December 2018
Turkmenistan	78.074	108.793
Turkey	45.068	68.826
Iraq	22.177	21.107
Uzbekistan	16.194	166.905
Libya	7.763	7.657
Switzerland	2.821	-
Malawi	2.800	-
Georgia	122	123
Holland	51	-
	175.070	**373.411**

In order to measure expected credit losses, the Group grouped its trade receivables and contract assets considering the maturity and credit risk characteristics. The expected credit loss ratio for each class of trade receivables and contract assets, which is grouped using past credit loss experiences, current conditions and forecasts of future economic conditions, is calculated and the expected credit loss provision has been calculated by multiplying the determined rate and sum of trade receivable and contract assets.

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28. Financial instruments – Fair values and risk management (continued)

Exposure to credit risk:

The carrying amount of financial assets represents the maximum credit exposure. The maximum exposure to credit risk at 31 December 2019 and 2018 was:

	Receivables								
	Trade receivables		Other receivables		Receivables from customer contracts	Service concession receivables			
31 December 2019	Related party	Other party	Related party	Other party	Contractual assets arising from ongoing construction and contracting works	Service concession receivables (Long+Short)	Cash at banks, reverse repurchase agreements and investment funds	Financial investments	Other (*)
Maximum credit risk exposure at reporting date (A+B+C+D)	**23.496**	**151.574**	**128.763**	**28.751**	**2.453**	**291.057**	**153.745**	**-**	**26**
-Portion of maximum risk covered by guarantees	-	-	-	-	-	-	-	-	-
A. Carrying value of financial assets that are neither past due nor impaired	23.496	134.860	128.763	28.751	**2.453**	**291.057**	153.745	-	26
B.Carrying value of financial assets that are past due but not impaired	-	16.714	-	-	-	-	-	-	-
C. Carrying value of impaired assets	-	-	-	-	-	-	-	-	-
- Past due (gross carrying amount)	-	25.487	-	-	-	-	-	-	-
- Impairment (-)	-	(25.487)	-	-	-	-	-	-	-
- Not past due (gross carrying amount)	-	-	-	-	-	-	-	-	-
- Impairment (-)	-	-	-	-	-	-	-	-	-
- Impairment (-)	-	-	-	-	-	-	-	-	-
D. Elements including credit risk on off statement of financial position	-	-	-	-	-	-	-	-	-

(*) This amount mainly consists of money in transit presented under cash and cash equivalents.

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28. Financial instruments – Fair values and risk management (continued)

	Receivables								
	Trade receivables		Other receivables		Receivables from customer contracts	Service concession receivables			
31 December 2018	Related party	Other party	Related party	Other party	Contractual assets arising from ongoing construction and contracting works	Service concession receivables (Long+Short)	Cash at banks, reverse repurchase agreements and investment funds	Financial investments	Other [(*)]
Maximum credit risk exposure at reporting date (A+B+C+D)	**150.140**	**223.271**	**199.361**	**13.102**	**12.880**	**329.396**	**62.908**	**-**	**21**
-Portion of maximum risk covered by guarantees	-	-	-	-	-	-	-	-	-
A. Carrying value of financial assets that are neither past due nor impaired	150.140	192.019	199.361	13.102	12.880	329.396	62.908	-	21
B.Carrying value of financial assets that are past due but not impaired	-	31.252	-	-	-	-	-	-	-
C. Carrying value of impaired assets	-	-	-	-	-	-	-	-	-
- Past due (gross carrying amount)	-	23.335	-	-	-	-	-	-	-
- Impairment (-)	-	(23.335)	-	-	-	-	-	-	-
- Not past due (gross carrying amount)	-	-	-	-	-	-	-	-	-
- Impairment (-)	-	-	-	-	-	-	-	-	-
- Impairment (-)	-	-	-	-	-	-	-	-	-
D. Elements including credit risk on off statement of financial position	-	-	-	-	-	-	-	-	-

(*) This amount mainly consists of money in transit presented under cash and cash equivalents.

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28. Financial instruments – Fair values and risk management (continued)

As at 31 December 2019 and 2018, the aging of trade receivables (due but not impaired) at the reporting date was:

	Receivables				
31 December 2019	**Trade receivables**	**Other receivables**	**Cash at banks**	**Derivative instruments**	**Other**
Past due 1-30 days	7.191	-	-	-	-
Past due 1-3 months	2.036	-	-	-	-
Past due 3-12 months	3.865	-	-	-	-
Past due 1-5 years	3.622	-	-	-	-
More than 5 years	-	-	-	-	-
Total	**16.714**	**-**	**-**	**-**	**-**
Portion of assets overdue secured by guarantee etc.	-	-	-	-	-

	Receivables				
31 December 2018	**Trade receivables**	**Other receivables**	**Cash at banks**	**Derivative instruments**	**Other**
Past due 1-30 days	7.744	-	-	-	-
Past due 1-3 months	3.392	-	-	-	-
Past due 3-12 months	1.417	-	-	-	-
Past due 1-5 years	18.699	-	-	-	-
More than 5 years	-	-	-	-	-
Total	**31.252**	**-**	**-**	**-**	**-**
Portion of assets overdue secured by guarantee etc.	-	-	-	-	-

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28. Financial instruments – Fair values and risk management (continued)

Liquidity risk

Liquidity risk arises in the general funding of the Group's activities and in the management of positions. It includes both risk of being unable to fund assets at appropriate maturities and rates and risk of being unable to liquidate an asset at a reasonable price and in an appropriate time frame. The Group has access to funding sources from banks and keeps certain level assets as cash and cash equivalents. The Group continuously assesses liquidity risk by identifying and monitoring changes in funding required in meeting business goals and targets set in terms of the overall Group strategy.

As at 31 December 2019 and 2018, the followings are carrying amounts, contractual cash flows and the contractual maturities of financial liabilities;

2019	Carrying amount	Total contractual cash flows	Less than 3 months	3-12 months	1-5 years	More than 5 years
Contractual maturities						
Non-derivative financial liabilities						
Bank loans	288.752	(294.198)	(90.647)	(112.214)	(91.337)	-
Bonds issued	-	-	-	-	-	-
Expected maturities						
Non-derivative financial liabilities						
Trade payables	51.544	(51.544)	(51.544)	-	-	-
Other payables	119.121	(119.121)	(70.885)	-	(48.236)	-
Liabilities recognised in employee benefits	5.181	(5.181)	(5.181)	-	-	-

2018	Carrying amount	Total contractual cash flows	Less than 3 months	3-12 months	1-5 years	More than 5 years
Contractual maturities						
Non-derivative financial liabilities						
Bank loans	268.229	(370.990)	(12.002)	(185.021)	(160.448)	(13.519)
Bonds issued	29.999	(30.458)	(30.458)	-	-	-
Expected maturities						
Non-derivative financial liabilities						
Trade payables	148.290	(148.290)	(81.772)	(66.518)	-	-
Other payables	71.264	(71.264)	(25.475)	(2.920)	(42.869)	-
Liabilities recognised in employee benefits	4.966	(4.966)	(4.966)	-	-	-

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28. Financial instruments – Fair values and risk management (continued)

Market risk

Market risk is the risk that changes in market prices, such as foreign exchange rates, interest rates and equity prices, will affect the Group's income or the value of its holdings of financial instruments. The objective of market risk management is to manage and control market risk exposures within acceptable parameter, while optimising the return.

Interest rate risk

The Group's operations are subject to the risk of interest rate fluctuations to the extent that interest-earning assets and interest-bearing liabilities mature or reprise at different times or in differing amounts. In the case of floating rate assets and liabilities the Group is also exposed to basis risk, which is the difference in reprising characteristics of the various floating rate indices, such as six months Libor and different types of interest. Risk management activities are aimed at optimizing net interest income, given market interest rate levels consistent with the Group's business strategies.

Profile

As at 31 December, the interest rate profile of the Group's interest-bearing financial instruments was as follows:

Fixed rate instruments	**2019**	**2018**
Financial assets	129.537	39.656
Financial liabilities	(288.752)	(246.264)
Variable rate instruments		
Financial liabilities	(13.212)	(51.962)

Fair value sensitivity analysis for fixed instruments

The Group does not account for any fixed rate financial assets and liabilities at fair value through profit or loss and the Group does not designate derivatives (interest rate swaps) as hedging instruments under fair value hedge accounting model. Therefore, a change in interest rate as of the reporting date would not affect profit or loss and equity.

Currency risk

The Group is exposed to currency risk on sales, purchases and borrowings that are denominated in a currency other than the respective functional currencies of Group entities. The currencies in which these transactions primarily are denominated are Euro and TL.

In respect of other monetary assets and liabilities denominated in foreign currencies, the Group ensures that its net exposure is kept to an acceptable level by buying or selling foreign currencies at spot rates when necessary to address short-term imbalances.

The Group is exposed to currency risk through the impact of rate changes on the translation of foreign currency denominated payables and bank borrowings from financial institutions. Such risk is monitored by the Board of Directors and limited through taking positions within approved limits as well as using derivative instruments where necessary.

To minimise risk arising from foreign currency denominated statement of financial position items, the Group sometimes utilises derivative instruments as well as keeping part of its idle cash in foreign currencies.

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28. Financial instruments – Fair values and risk management (continued)

Currency risk

At 31 December, the currency risk exposures of the Group in USD equivalents are as follows:

	31 December 2019					31 December 2018				
	USD equivalent	USD	TL	EURO	Other[***]	USD equivalent	USD	TL	EURO	Other[***]
1.Trade receivables	3.524	-	14.796	923	-	47.608	24.237	15.903	17.759	-
2a.Monetary financial assets (including cash on hand, bank deposits) [*]	54.149	49.751	3.087	3.464	-	28.731	18.215	42.873	2.062	4
2b.Other monetary assets	-	-	-	-	-	-	-	-	-	-
3. Other	6	2	-	1	16	775	775	-	-	-
4. Current assets (1+2+3)	**57.679**	**49.753**	**17.883**	**4.388**	**16**	**77.114**	**43.227**	**58.776**	**19.821**	**4**
5. Trade receivables	-	-	-	-	-	4	2	12	-	-
6a. Monetary financial assets	-	-	-	-	-	-	-	-	-	-
6b. Non-monetary financial assets	-	-	-	-	-	-	-	-	-	-
7. Other	-	-	-	-	-	-	-	-	-	-
8. Non-current assets (5+6+7)	**-**	**-**	**-**	**-**	**-**	**4**	**2**	**12**	**-**	**-**
9. Total assets (4+8)	**57.679**	**49.753**	**17.883**	**4.388**	**16**	**77.118**	**43.229**	**58.788**	**19.821**	**4**
10. Trade payables	(3.880)	(675)	(8.290)	(1.616)	-	(20.343)	(9.416)	(10.283)	(7.831)	-
11. Financial liabilities	(96.359)	(50.000)	(186.806)	(13.318)	-	(46.398)	-	(207.245)	(3.594)	(2.887)
12a. Other monetary liabilities	(64.592)	(4.375)	(340.703)	(2.555)	-	(24.855)	(564)	(127.754)	(6)	-
12b. Other non-monetary liabilities	-	-	-	-	-	-	-	-	-	-
13. Short term liabilities (10+11+12)	**(164.831)**	**(55.050)**	**(535.799)**	**(17.489)**	**-**	**(91.596)**	**(9.980)**	**(345.282)**	**(11.431)**	**(2.887)**
14. Trade payables	-	-	-	-	-	(746)	(314)	-	(377)	-
15. Financial liabilities	(19.087)	-	(13.889)	(14.961)	-	(56.644)	-	(192.640)	(17.478)	-
16a. Other monetary liabilities	-	-	-	-	-	-	-	-	-	-
16b. Other non-monetary liabilities	-	-	-	-	-	-	-	-	-	-
17. Long term liabilities (14+15+16)	**(19.087)**	**-**	**(13.889)**	**(14.961)**	**-**	**(57.390)**	**(314)**	**(192.640)**	**(17.855)**	**-**
18. Total liabilities (13+17)	**(183.918)**	**(55.050)**	**(549.688)**	**(32.450)**	**-**	**(148.986)**	**(10.294)**	**(537.922)**	**(29.286)**	**(2.887)**
19. Net position of off-statement of financial position derivate instruments (19a+19b)	-	-	-	-	-	**-**	**-**	**-**	**-**	**-**
19a. Total hedged assets[**]	-	-	-	-	-	**-**	**-**	**-**	**-**	**-**
19b. Total hedged liabilities [**]	-	-	-	-	-	**-**	**-**	**-**	**-**	**-**
20. Net statement of financial position (9+18+19)	**(126.239)**	**(5.297)**	**(531.805)**	**(28.062)**	**16**	**(71.868)**	**32.935**	**(479.134)**	**(9.465)**	**(2.883)**
21. Net statement of monetary items (IFRS 7.b23) (=1+2a+5+6a+10+11+12a+14+15+16a)	**(126.239)**	**(5.297)**	**(531.805)**	**(28.062)**	**16**	**(71.868)**	**32.935**	**(479.134)**	**(9.465)**	**(2.883)**

[*] Consists of the Group's other receivables in foreign currency with a monetary financial asset nature.
[**] Consists of foreign currency derivative instruments that are not subject to hedge accounting.
[***] USD equivalents are given.

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28. Financial instruments – Fair values and risk management (continued)

Currency risk *(continued)*

Sensitivity analysis

A strengthening/weakening of the USD against the other currencies below would have increased/(decreased) the comprehensive income and profit/loss (excluding the tax effect) as of 31 December 2019 and 2018 as follows:

	Profit / (Loss)		Equity	
31 December 2019	**Strengthening of USD**	**Weakening of USD**	**Strengthening of USD**	**Weakening of USD**
Increase/(decrease) 10% of TL parity				
1-TL net asset / liability	(8.953)	8.953	(8.953)	8.953
2-Hedged portion of TL amounts(-)	-	-	-	-
3-Net effect of USD (1+2)	**(8.953)**	**8.953**	**(8.953)**	**8.953**
Increase/(decrease) 10% of EUR parity				
4-EUR net asset / liability	(3.142)	3.142	(3.142)	3.142
5-Hedged portion of EUR amounts(-)	-	-	-	-
6-Net effect of EUR (4+5)	**(3.142)**	**3.142**	**(3.142)**	**3.142**
Increase/(decrease) 10% of other parities				
7-Other foreign currency net asset / liability	-	-	-	-
8-Hedged portion of other foreign currency amounts(-)	-	-	-	-
9-Net effect of other foreign currencies (7+8)	**-**	**-**	**-**	**-**
TOTAL (3+6+9)	**(12.095)**	**12.095**	**(12.095)**	**12.095**

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28. Financial instruments – Fair values and risk management (continued)

	Profit / (Loss)		Equity	
31 December 2018	**Strengthening of USD**	**Weakening of USD**	**Strengthening of USD**	**Weakening of USD**
Increase/(decrease) 10% of TL parity				
1-TL net asset / liability	3.294	(3.294)	3.294	(3.294)
2-Hedged portion of TL amounts(-)	-	-	-	-
3-Net effect of TL (1+2)	**3.294**	**(3.294)**	**3.294**	**(3.294)**
Increase/(decrease) 10% of EUR parity				
4-EUR net asset / liability	(1.085)	1.085	(1.085)	1.085
5-Hedged portion of EUR amounts(-)	-	-	-	-
6-Net effect of EUR (4+5)	**(1.085)**	**1.085**	**(1.085)**	**1.085**
Increase/(decrease) 10% of other parities				
7-Other foreign currency net asset / liability	288	288	288	288
8-Hedged portion of other foreign currency amounts(-)	-	-	-	-
9-Net effect of other foreign currencies (7+8)	**(288)**	**288**	**(288)**	**288**
TOTAL (3+6+9)	**7.187**	**(7.187)**	**7.187**	**(7.187)**

Capital management

The Group's objectives when managing capital include:

- to comply with the capital requirements required by the regulators of the financial markets where the Group operates;
- to safeguard the Group's ability to continue as a going concern so that it can continue to provide returns for shareholders and benefits for other stakeholders; and
- to provide an adequate return to shareholders.

The Group's debt to equity ratio at the end of year was as follows:

	2019	**2018**
Total current liabilities	418.289	480.865
Less: cash and cash equivalents	154.200	63.043
Less: deferred revenue and contract liabilities	57.318	140.578
Net debt	**206.771**	**277.244**
Equity	**606.861**	**660.220**
Debt to equity ratio at 31 December	**0,34**	**0,42**

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28. Financial instruments – Fair values and risk management (continued)

Operational risk

Operational risk is the risk of direct or indirect loss arising from a wide variety of causes associated with the Group's processes, personnel, technology and infrastructure, and from external factors other than credit, market and liquidity risks such as those arising from legal and regulatory requirements and generally accepted standards of corporate behaviour. Operational risks arise from all of the Group's operations.

The Group's objective is to manage operational risk so as to balance the avoidance of financial losses and damage to the Group's reputation with overall cost effectiveness and to avoid control procedures that restrict initiative and creativity.

The primary responsibility for the development and implementation of controls to address operational risk is assigned to senior management within each business unit. This responsibility is supported by the development of overall Group standards for the management of operational risk in the following areas:

- requirements for appropriate segregation of duties, including the independent authorisation of transactions
- requirements for the reconciliation and monitoring of transactions
- compliance with regulatory and other legal requirements
- documentation of controls and procedures
- requirements for the periodic assessment of operational risks faced, and the adequacy of controls and procedures to address the risks identified
- requirements for the reporting of operational losses and proposed remedial action
- development of contingency plans
- training and professional development
- ethical and business standards
- risk mitigation, including insurance where this is effective.

Compliance with Group standards is supported by a programme of periodic reviews undertaken by Çalık Holding's Internal Audit department.

Fair value information

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date in the principal or in its absence, the most advantageous market to which the Group has access at that date.

When available, the Group measures the fair value of an instrument using the quoted price in an active market for that instrument. A market is regarded as active if transactions for the asset or liability take place with sufficient frequency and volume to provide pricing information on an ongoing basis. If there is no quoted market price in an active market, then the Group uses valuation techniques that maximise the use of relevant observable inputs and minimise the use of unobservable inputs.

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28. Financial instruments – Fair values and risk management (continued)

The table below provides reconciliation between line items in the consolidated statement of financial position and categories of financial instruments.

31 December 2019	Financial assets presented from amortized value	Financial assets measured by reflecting FV difference on profit / loss	Financial liabilities presented at amortized value	Net carrying amount
Cash and cash equivalents	154.200	-	-	154.200
Financial investments	-	32.959	-	32.959
Trade receivables	175.070	-	-	175.070
Other receivables	157.514	-	-	157.514
Total assets	**486.784**	**32.959**	**-**	**519.743**
Borrowings	-	-	(293.128)	(293.128)
Trade payables	-	-	(51.544)	(51.544)
Payables related to employee benefits	-	-	(5.181)	(5.181)
Other payables	-	-	(119.121)	(119.121)
Total liabilities	**-**	**-**	**(468.974)**	**(468.974)**

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28. Financial instruments – Fair values and risk management (continued)

31 December 2018	Financial assets presented from amortized value	Financial assets measured by reflecting FV difference on profit / loss	Financial liabilities presented at amortized value	Net carrying amount
Cash and cash equivalents	63.043	-	-	63.043
Financial investments	-	22.411	-	22.411
Trade receivables	373.411	-	-	373.411
Other receivables	211.265	-	-	211.265
Total Asset	**647.719**	**22.411**	**-**	**670.130**
Borrowings	-	-	(298.228)	(298.228)
Trade payables	-	-	(148.290)	(148.290)
Payables related to employee benefits	-	-	(4.966)	(4.966)
Other payables	-	-	(71.264)	(71.264)
Total liabilities			**(522.748)**	**(522.748)**

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28. Financial instruments – Fair values and risk management (continued)

Fair value hierarchy

The fair value hierarchy consists of three levels, depending upon whether fair values are determined based on quoted prices in an active market (Level 1), valuation techniques with observable inputs (Level 2) or valuation techniques that incorporate inputs which are unobservable and which have significant impact on the fair value of the instrument (Level 3):

Valuation models

The Group measures fair values using the following fair value hierarchy, which reflects the significance of the inputs used in making the measurements.

- Level 1: This category includes inputs that are quoted market prices (unadjusted) in active markets for identical instruments. These are instruments where the fair value can be determined directly from prices which are quoted in active, liquid markets and where the instrument observed in the market is representative of that being priced in the Group's portfolio.
- Level 2: This category includes inputs other than quoted prices included within Level 1 that are observable either directly (i.e. as prices) or indirectly (i.e. derived from prices). This category includes instruments valued using: quoted market prices in active markets for similar instruments; quoted prices for identical or similar instruments in markets that are considered less than active; or other valuation techniques in which all significant inputs are directly or indirectly observable from market data.
- Level 3: This category includes all instruments where the valuation technique uses inputs based on unobservable data, which could have a significant effect on the instrument's valuation. This category includes instruments that are valued based on quoted prices for similar instruments where significant, unobservable adjustments or assumptions are required to reflect differences between instruments. Unobservable in this context means that there is little or no current market data available from which the price at which an arm's length transaction would be likely to occur can be derived.

The Group uses following assumptions to estimate the fair value of financial instruments:

Equity securities: Fair values of publicly traded equity securities are based on quoted market prices where available. In the case of where no quoted market is available, fair value is determined based on quoted prices for similar securities or other valuation techniques since there is significant variability in the range of reasonable fair value estimates and the probabilities of the various estimates within the range cannot be assessed reasonably. Valuation techniques include discounted cash flow models and transaction multiple methods.

Derivative assets and liabilities: Derivatives are valued using valuation techniques. The valuation techniques and inputs depend on the type of derivative and the nature of the underlying instruments. Observable prices or model inputs are usually available in the market for exchange-traded derivatives and simple over-the-counter derivatives.

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28. Financial instruments – Fair values and risk management (continued)

Availability of observable market prices and model inputs reduces the need for management judgment and estimation and also reduces the uncertainty associated with determining fair values. The principal technique used to value these instruments are based on discounted cash flows. These valuation models calculate the present value of expected future cash flows. Inputs to valuation models are determined from observable market data where possible. The inputs used include prices available from exchanges, dealers, brokers or providers of consensus pricing, yield curves, credit spreads, default rates, recovery rates, and volatility of underlying interest rates, equity prices and foreign currency exchange rates. These inputs are determined with reference to quoted prices, recently executed trades, independent market quotes, where available.

Fair value estimates obtained from models are adjusted for any other factors, such as liquidity risk or model uncertainties; to the extent that the Group believes that a third party market participant would take them into account in pricing a transaction. Fair values reflect the credit risk of the instrument and include adjustments to take account of the credit risk of the Group entity and the counterparty where appropriate. For measuring derivatives, fair values taken into account both credit valuation adjustments and debit valuation adjustments.

Financial instruments not measured at fair value

The following table compares the carrying amount of financial assets and liabilities not measured at fair value and analyses them by the level in the fair value hierarchy.

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28. Financial instruments – Fair values and risk management (continued)

	Level 1	Level 2	Level 3	Total fair value	Total carrying amount
31 December 2019					
Financial assets					
Cash and cash equivalents	-	154.200	-	154.200	154.200
Financial investments	-	-	32.959	32.959	32.959
Trade receivables	-	-	175.070	175.070	175.070
Other receivables	-	-	157.514	157.514	157.514
	-	**154.200**	**365.543**	**519.743**	**519.743**
Financial liabilities					
Borrowings	-	(298.228)	-	(298.228)	(298.228)
Trade payables	-	-	(51.544)	(51.544)	(51.544)
Payables related to employee benefits	-	-	(5.181)	(5.181)	(5.181)
Other payables	-	-	(119.121)	(119.121)	(119.121)
	-	**(298.228)**	**(175.846)**	**(474.074)**	**(474.074)**

	Level 1	Level 2	Level 3	Total fair value	Total carrying amount
31 December 2018					
Financial assets					
Cash and cash equivalents	-	63.043	-	63.043	63.043
Financial investments	-	-	22.411	22.411	22.411
Trade receivables	-	-	373.411	373.411	373.411
Other receivables	-	-	211.265	211.265	211.265
	-	**63.043**	**607.087**	**670.130**	**670.130**
Financial liabilities					
Borrowings	-	(298.228)	-	(298.228)	(298.228)
Trade payables	-	-	(148.290)	(148.290)	(148.290)
Payables related to employee benefits	-	-	(4.966)	(4.966)	(4.966)
Other payables	-	-	(71.264)	(71.264)	(71.264)
	-	**(298.228)**	**(224.520)**	**(522.748)**	**(522.748)**

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29. Group enterprises

The consolidated financial statements aggregate financial information from the following entities:

Subsidiaries

The table below sets out all the subsidiaries and shows their shareholding structure at 31 December:

	Direct controlling interest of Çalık Enerji and its Subsidiaries		*Effective ownership of Çalık Enerji and its Subsidiaries*	
	31 December	*31 December*	*31 December*	*31 December*
Adı	*2019*	*2018*	*2019*	*2018*
Adacami Enerji	99,95	99,95	99,95	99,95
Ant Enerji	50,00	50,00	50,00	50,00
Atayurt İnşaat	99,50	99,50	99,50	99,50
Çalık Yenilenebilir Enerji	100,00	100,00	100,00	100,00
ÇEDAŞ	99,90	99,90	99,90	99,90
ÇED	100,00	100,00	100,00	100,00
Çalık Energy Swiss AG	100,00	100,00	100,00	100,00
Çalık Enerji Dubai	100,00	100,00	100,00	100,00
Çalık Güneş Enerjisi Üretim A.Ş.	100,00	-	100,00	-
Çalık NTF	100,00	100,00	100,00	100,00
Çalık Rüzgar	95,00	95,00	95,00	95,00
Demircili Rüzgar	95,00	95,00	95,00	95,00
JSC Calik Georgia Wind	85,00	85,00	85,00	85,00
Kızılırmak Enerji Elektrik A.Ş.	99,30	99,30	99,30	99,30
Momentum Enerji	100,00	100,00	100,00	100,00
Onyx Trading Innovation FZE	100,00	100,00	100,00	100,00
Technological Energy N.V.	100,00	100,00	100,00	100,00
Technovision Mühendislik	90,00	90,00	90,00	90,00
Türkmen'in Altın Asrı	95,50	95,50	95,50	95,50
Yeşilçay Enerji	100,00	100,00	100,00	100,00
YEDAŞ 1	100,00	100,00	100,00	100,00
YEPAŞ [1]	100,00	100,00	100,00	100,00
Taşkent Merkez Park	100,00	100,00	100,00	100,00

[1]*First consolidated under ÇEDAŞ, then consolidated under the Group.*

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29. Group enterprises (continued)

Joint ventures

The table below sets out the Joint ventures and their shareholding structure at 31 December:

	Direct controlling interest of Çalık Enerji and its Subsidiaries		***Effective ownership interest of Çalık Enerji and its Subsidiaries***	
	31 December	*31 December*	*31 December*	*31 December*
Name	*2019*	*2018*	*2019*	*2018*
Çalık Limak Adi Ortaklığı	50,00	50,00	25,50	25,50
Doğu Aras	50,00	50,00	50,00	50,00
KÇLE	50,00	50,00	50,00	50,00
LC Electricity	50,00	50,00	47,75	47,75

30. Segment information

The Group management prepares segment reporting in accordance with policies explained in Note 2. Each segment's information is used for the evaluation and allocation of the resources separately by the management. By measuring and reporting a segment's revenue gained from transactions with other segments, intra transactions are realised at normal market price and conditions.

The operations in countries, where the Group has EPC projects, have the risk to be suspended temporarily or permanently due to economic and political instability in these countries. In this regard the Group management monitors the developments in Libya closely and follows the process and collection for projects in this country.

Segment information of the Group's subsidiaries operating in Turkey and abroad, which are presented in Note 1, comprised the following:

	31 December 2019				
	Construction and contract services	**Electricity sales and distribution**	**Other**	**Eliminations**	**Total**
Revenue	404.735	494.336	2.821	(154.253)	747.639
Gross profit	94.530	156.396	1.274	(5.350)	246.850
Share of profit of equity accounted investees	-	38.090	-	2.755	40.845
Interest income	279	4.413	-	-	4.692
Other income/ (expense), net	(20.560)	(49.447)	(1.372)	1.303	(70.076)
Operating profit/(loss)	**74.249**	**149.452**	**(98)**	**(1.292)**	**222.311**
Gains/(losses) from investing activities	118.626	8.522	-	(121.443)	5.705
Interest expense	(5.050)	(1.747)	-	-	(6.797)
Other finance income and expense, net	11.112	(8.450)	(1.011)	(13.869)	(12.218)
Profit/(loss) before tax	**198.937**	**147.777**	**(1.109)**	**(136.604)**	**209.001**
Tax (expense)/benefit	328	(12.100)	129	-	(11.643)
Net profit/(loss)	**199.265**	**135.677**	**(980)**	**(136.604)**	**197.358**
Segment assets	1.548.418	815.381	6.215	(1.185.453)	1.184.561
Segment liabilities	(697.868)	(390.750)	(7.695)	518.613	(577.700)
Capital expenditures	4.193	15.124	-	-	19.317
Depreciation and amortization	6.551	13.326	-	369	20.246

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30. Segment information (continued)

	31 December 2018				
	Construction and contract services	**Electricity sales and distribution**	**Other**	**Eliminations**	**Total**
Revenue	782.184	488.915	1.723	(162.893)	1.109.929
Gross profit	160.503	82.336	744	82.818	326.401
Share of profit of equity accounted investees	-	22.769	-	6.010	28.779
Interest income	61	31.454	-	84	4.315
Other income/ (expense), net	24.036	20.749	(172)	(128.964)	(84.351)
Operating profit/(loss)	**184.600**	**157.308**	**572**	**(40.052)**	**275.144**
Gains/(losses) from investing activities	518.998	(22)	393	(519.476)	(107)
Interest expense	(9.029)	(656)	-	1	(9.684)
Other finance income and expense, net	8.313	(35.471)	(6.370)	7.547	(25.981)
Profit/(loss) before tax	**702.882**	**121.159**	**(5.405)**	**(551.980)**	**239.372**
Tax (expense)/benefit	(1.334)	(24.537)	(143)	239	(25.775)
Net profit/(loss)	**701.548**	**96.622**	**(5.548)**	**(579.024)**	**213.597**
Segment assets	1.736.828	815.552	91.715	(1.259.967)	1.384.128
Segment liabilities	1.096.409	467.178	57.213	(896.892)	723.908
Capital expenditures	15.517	1.684	3.259	-	20.459
Depreciation and amortization	5.762	15.203	582	2	21.550

31. Subsequent events

The recent outbreak of Coronavirus, a virus causing potentially deadly respiratory tract infections originating in China and spreading in various jurisdictions, may negatively affect economic conditions regionally as well as globally, disrupt operations situated in countries particularly exposed to the contagion. The ultimate severity of the Coronavirus outbreak is uncertain at this time and therefore the Group cannot reasonably estimate the impact on Group's operations.

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