



**Verified Carbon
Standard**

BOYABAT HYDROELECTRIC POWER PLANT

Document Prepared by Rüzgar Danışmanlık



| | |
|--------------------------|--|
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| Prepared By | Çağla Balcı Eriş-Rüzgar Danışmanlık |
| Contact | Göztepe Mah. Avcı Sok. Nursaray Apt. No:1 D:22 Kadıköy İstanbul TURKEY Tel:+90 216 355 09 68 E-mail :cagla@ruzgardanismanlik.net www.ruzgardanismanlik.net |

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1 PROJECT DETAILS

1.1 Summary Description of the Implementation Status of the Project

Boyabat Hydro Electric Power Plant (HPP) is a dam type HPP. It has an installed capacity of 528 MWm/513 MWe. This total electric capacity is reached via three vertical shaft Francis turbines with a nominal output of 176 MWm/171 MWe each. The Project Activity is constructed over the longest (1355 km) river of Turkey, the Kızılırmak river. The project is constructed as the third project counting from the source of the Kızılırmak river.

The following are pictures from the project activity (See Figure 1 a and b), first picture (Figure 1 a) is a view of the reservoir lake and the second picture (Figure 1 b) is the view of the concrete gravity dam that barriers the waters of the Kızılırmak river.

Figure 1 General view of the reservoir lake and general view of the concrete gravity dam.



The main technical characteristics of the project activity and the general properties of the facilities are provided below (Source: Feasibility Study Report) (Table 1):

Table 1 General properties of the project facilities

Characteristics of the Reservoir

| | |
|--------------------|------------------------------|
| Max Water Level | 335 m |
| Min Water Level | 305 m |
| Active Volume | 1,410,000,000 m ³ |
| Dead Volume | 2,147,000,000 m ³ |
| Total Volume | 3,557,000,000 m ³ |
| Area of the Lake | 65,400,000 m ² |
| Length of the Lake | 60 km |

Characteristics of the Dam Body

| | |
|------------------------|---|
| Dam Location | 10 km SW of Durağan town center over the Kızılırmak river |
| Dam Type | Concrete Gravity Dam |
| Height from Base | 195 m |
| Height from River Base | 147 m |
| Crest Elevation | 335 m |
| Volume of the Body | 2,300,000 m ³ |
| Crest Width | 10 m |
| Crest Length | 262 m |
| Thalweg Elevation | 147 m |

Characteristics of the Spillway

| | |
|-----------------|---------------------------|
| Spillway Type | Concrete Gravity Dam |
| Number of Units | 6 |
| Cover Height | 13 m |
| Cover Width | 10 m |
| Capacity | 9,300 m ³ /sec |

Characteristics of the power station

| | |
|-----------------------------|---------------------------|
| Type | Semi-Underground |
| Width | 22.5 m |
| Length | 103 m |
| Annual Generation | 1,500*10 ⁶ kWh |
| Firm Energy Generation | 925*10 ⁶ kWh |
| Secondary Energy Generation | 575*10 ⁶ kWh |

Characteristics of Turbine and generator¹

| | |
|-----------------|------------------------|
| Type of Turbine | Vertical Shaft Francis |
|-----------------|------------------------|

¹ Provisional Acceptance – 29 November 2012

| | |
|-----------------------------|--------------------------------------|
| Type of Generator | Vertical Shaft Synchronous Generator |
| Brand of Generator | Andritz Hydro |
| Serial Numbers of Generator | BOY 10-01 BOY 10-02 BOY 10-03 |
| Number | 3 |
| Installed Capacity | 176 MWm/171 MWe*3 |
| Effective rated Head | 122.5 m |
| Maximum Rated Discharge | 153,25 m ³ / sec each |

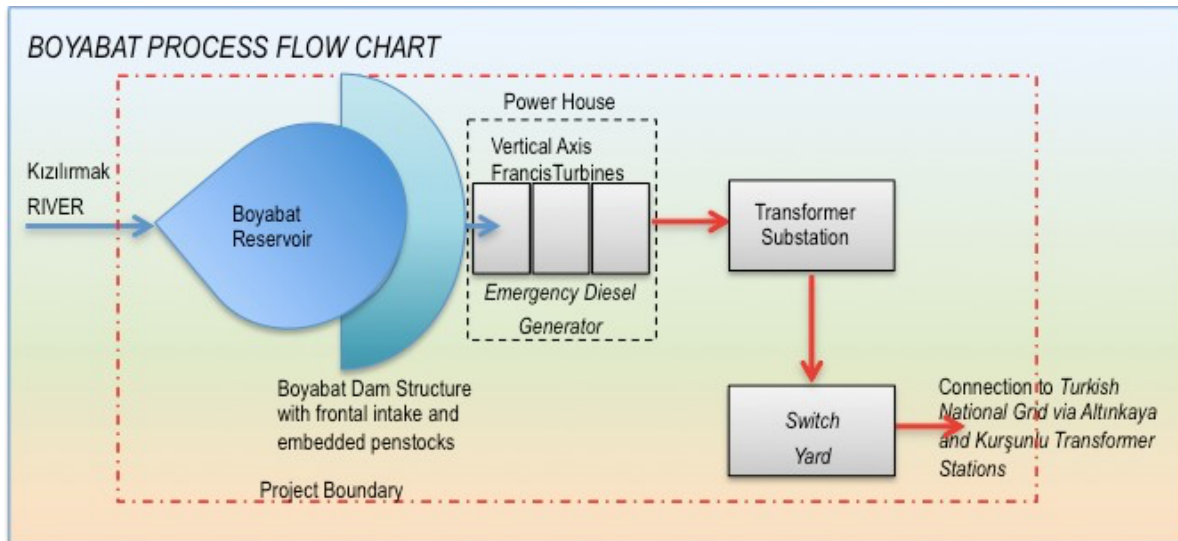
The project uses three vertical axis Francis type turbines. The working principle of the Francis turbine is such that the water coming from the penstock is transferred to the inlet scroll, which distributes the water equally around the wicket gates.

Water passes through the wicket gates, which controls the amount of water passing through the turbine, before reaching the runner. This in effect controls the power output of the hydroelectric power plant. The wicket gates also adjust the angle of the water reaching to the runner. After passing through the wicket gates, the water reaches the runner. The water pressure forces the runner to rotate. The rotation speed of the runner is in the range of 80 to 1000 revolutions per minute. The water continues its motion downward under the runner to the exit pipe. The exit pipe discharges the water to the environment as low pressure water. The rotational motion of the runner is transferred to an electric generator. The generated electricity is converted to a high voltage current and is transferred to the grid to be consumed.

There is not any new reservoir formation for this project.

How the project operating, and the boundary of the project activity (indicated in broken red line) is outlined in the following Figure 2.

Figure 2 Flow chart showing the basic operational principles of the project activity, and the project boundary.



Some important and significant dates in the project history can be listed as shown in the following Table (Table 2):

Table 2 The project activity milestones

| Date | Milestone | Reference |
|------------|---|--------------------------------------|
| 01/07/07 | Feasibility Study Report | FSR 2007 |
| 25/10/07 | Water Usage Agreement | Signed Agreement |
| 13/11/07 | Electricity Production License granted for the project | License numbered EÜ1374-3/992 |
| 24/03/08 | The Project is officially exempted from the EIA process | EIA Exemptions Letter |
| 01/05/08 | Construction Worksite Opening Permit Accrued | NHS records |
| 01/06/08 | Expropriation process started | Summary of the expropriation process |
| 28/11/08 | Construction Contract Signed (Investment Decision Date) | Contract |
| 31/08/09 | Financial Closure | Signed Loan agreement |
| 22/03/10 | Hydro mechanical Equipment Procurement Contract | Contract |
| 12/10/10 | EMRA extended the construction period | EMRA Communication |
| 22/11/12 | DSI Substantial acceptance provision issued | DSI Protocol |
| 29/11/12 | The Unit 1-2 and 3 was commissioned | Substantial operation protocol |
| 24/07/2014 | Approved PD | |
| 24/07/2014 | Approved Validation Report | |

| | | |
|------------|------------------------------------|-------------------------|
| 03/09/2014 | Approved First Monitoring Report | 29/11/2012 – 31/07/2014 |
| 04/09/2014 | Approved First Verification Report | 29/11/2012 – 31/07/2014 |
| | Actual Monitoring Period | 01/08/2014 – 30/04/2020 |

During this monitoring period the project activity is observed to export **4,005,735.439** MWh of Electricity to the host country grid and imported **33,220.078** MWh of electricity. 3,972,515.361 MWh net electricity supplied to the grid. As a result the project is observed to create **2,041,869** tonnes of baseline emissions and **360,517** tonnes of Project emissions, thus a net amount of **1,681,349** tonnes of GHG emissions are produced by the project activity during this monitoring period. The ER estimation was 580,882 tCO_{2e} per year during validation and according to monitoring period the estimation is equal to 3,342,061 tCO_{2e}.²The actual ER is under %50 estimation in approved PD.

There is no main change until first monitoring period of the project.

Moreover, the project activity facilitates the achievement of electricity demand required for the social and economic development of the country based on a renewable energy source. The project contributes to the region's sustainable development in the following ways:

- The project decreases emissions of sulphur oxides (SO_x), nitrogen oxides (NO_x), carbon monoxide, particulate matter, other pollutants, as well as carbon dioxide associated with the combustion of fossil fuels.
- The project reduces the dependence on fossil fuels, which are non-renewable and limited in supply.
- During construction, the project provides employment opportunities. To the extent practical, these jobs filled by local residents. Besides, employment also generated for operation and maintenance activities.

1.2 Sectoral Scope and Project Type

The project category is Sectoral Scope 1: Energy industries (renewable-/non-renewable sources). The project type is grid connected electricity generation from renewable sources. The project is a non-grouped, stand-alone project.

1.3 Project Proponent

| | |
|--------------------------|--|
| Organization name | BOYABAT ELEKTRİK ÜRETİM VE TİCARET A.Ş. |
| Contact person | Suat Odaman |
| Title | Sales Manager |
| Address | Burhaniye Mahallesi Kısıklı Caddesi No:65 34676 Üsküdar İstanbul Turkey |
| Telephone | +90 216 5378141 |

² Boyabat ER Calculation Excel Sheet "Boyabat HEPP" sheet M7 coulumn

Email info@boyabatelektrik.com.tr

1.4 Other Entities Involved in the Project

| | |
|----------------------------|---|
| Organization name | Rüzgar Danışmanlık-Çağla Balcı Eriş |
| Role in the Project | Consultant |
| Contact person | Mrs. Çağla Balcı Eriş |
| Title | Consultant Manager |
| Address | Göztepe Mah. Avcı Sok. Nursaray Apt. No:1 D:22 Kadıköy-İstanbul 34270 TURKEY |
| Telephone | +90 216 355 09 68 |
| Email | cagla@ruzgardanismanlik.net |

1.5 Project Start Date

Project start date is 29 November 2012 which is the first acceptance protocol date by Ministry of Energy and Natural Resources.

1.6 Project Crediting Period

The project first crediting period is 10 years and renewable twice.

VCS first crediting period start date: 29 November 2012.

VCS first crediting period end date: 28 November 2022

1.7 Project Location

The host party is the Republic of Turkey.

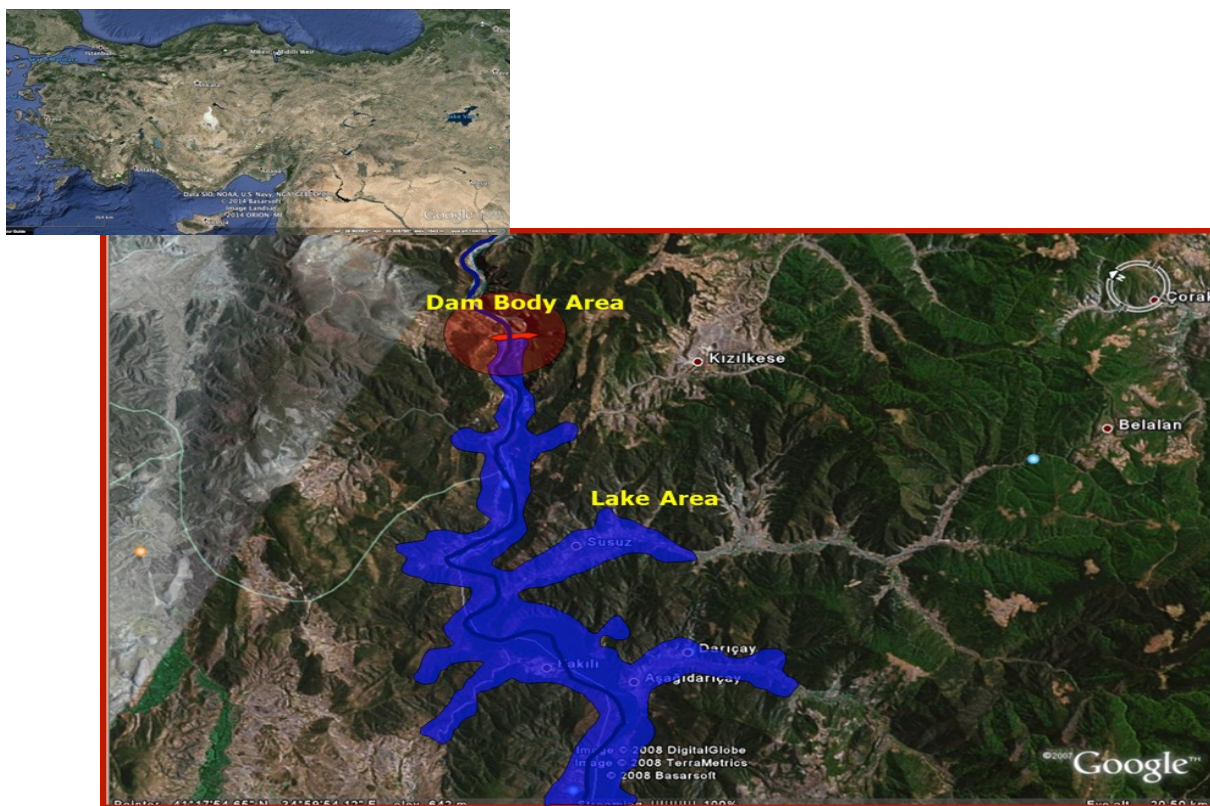
The Project is located at the Central Black Sea Geographical Region/ Sinop Province, Durağan town and Kızılırmak River³

The following are the coordinates of the four random points from around project area.

| | Latitude: | Longitude |
|----------|---------------|--------------|
| Dam Body | 41° 20.316' N | 35° 0.068' E |

³ Provisional Acceptance Records – October 2012

Figure 3 Google Earth image showing the exact project location within Turkey



1.8 Title and Reference of Methodology

Approved consolidated baseline and monitoring methodology ACM0002 “Large-scale Consolidated Methodology; Grid-connected electricity generation from renewable sources.” Version 14.0.0.

The Approved Methodology refers to the following tools:

“Tool for the demonstration and assessment of additionality” (Version 07.0.0; EB 70-Annex 8)

“Tool to calculate the emission factor for an electricity system” (Version 04.0.0; EB 75-Annex 15)

“Guidelines on the assessment of investment analysis” (Version 5; EB62-Annex 5)

1.9 Participation under other GHG Programs

The project activity has not been registered, or currently seeking registration under any other GHG programs.

1.10 Other Forms of Credit

1.10.1 Emissions Trading Programs and Other Binding Limits

The project does not reduce GHG from activities that are included in an emissions trading program or any other mechanism that includes GHG allowance trading.

1.10.2 Other Forms of Environmental Credit

The project has not sought or received another form of GHG-related environmental credit, including renewable energy certificates.

1.11 Sustainable Development

The project generates electricity by using hydroelectric power to supply the increasing national electricity demand in a cleaner and sustainable manner. It reduces the air pollution caused by the grid connected power plants which are mostly fossil fuel fired.

The project involves installation of 3 Vertical Shaft Francis turbines, each having 176 MWm/171 MWe capacity, which are located in Sinop, Turkey. The total installed capacity is 528 MWm/513 MWe and the annual electricity generation was estimated to be maximum 530,882 MWh. The project is a green field project and in the absence of the project activity an equivalent amount of electricity generated in the fossil fuel based national grid.

The following is a list of the project's contribution to the UN SDG:

SDG 7 on access to affordable, reliable, and sustainable energy, as the project is not relying on imported fossil fuels.

Project has generated 3,972,515 MWh in the whole monitoring period.**SDG 8** decent work and economic growth. As the project is providing a decent and secure work environment.

The project has been created permanent job opportunity for 28 people.⁴

SDG 13 on urgent action to combat climate change, as the project is replacing the fossil fuel based national grid and it is producing emission reductions.

The project has been reduced CO2 emissions in an amount of 1,681,349 tonnes in the whole monitoring period.

2 SAFEGUARDS

2.1 No Net Harm

In the context of the "EIA Positive Letter"⁵ submitted within the project documents to the local branch of Sinop provincial directorate of environment and urbanism, during the project design phase, the following measures are undertaken in order to minimize the impacts during construction and operational periods:

Air Quality: Necessary precautions, such as watering roads, careful loading and unloading and covering the top of loaded trucks by tarpaulin; are to be taken in order to minimize the dust formed during any excavation. The dusting problem was more of an issue during the construction phase, but the project

⁴ SGK Records

⁵ 14/09/2012

activity is not causing any process emissions or fuel burning emissions except the auxiliary diesel generator, that was only operated for testing purposes during the monitoring period.

Water & Wastewater Management: Water for domestic use is supplied by tankers to the site and wastewater is collected in septic tanks which is emptied regularly. The wastewater is discharged in accordance with Water Pollution Control regulations of the host country. The waste oil is collected in impermeable containers and transferred to recycling centres in accordance with Hazardous Waste Control Regulations and Waste Oil Control Regulations.

It is stated that the amount of water to be left will be specified in the EIA report, as it is stated in the 2nd page of the Water Use Agreement, as 2 paragraphs, for the subject related to life water. However, in the paragraph below, it is defined as the amount of water determined in the feasibility report and approved by DSI for projects that do not require an EIA. The Boyabat HEPP project is also exempt from the EIA report (EIA Writings). For this reason, the amount of water to be released downstream has been approved by DSI as at least 10% of the average water flow of the last ten years taken as a basis for the project. The average water flow of the last 10 years, which is the basis of the project, is calculated as 3108hm³ and the amount of water to be released to the downstream is 310.8hm³. This amount of water is already released to the downstream by production. At the same time, this amount of water corresponds to approximately 100,000MWh electricity production. Even in 2018, when project owner made minimum production, project owner left the water downstream by 4.7 times of this amount. The main reason why there is no lifeline requirement in the project is that our tail water is discharged into the reservoir of Altinkaya dam in our downstream.

Solid Waste: Solid waste is collected, and recyclables are separated to be sent to recycling centers. The rest is disposed to the nearest landfill site in coordination with Sinop Municipality

Biodiversity: Necessary precautions are taken for the species under conservation by international conventions, if any found on the site.

The reason why there is no fish pass application in Boyabat HEPP project; Boyabat dam is a very large dam in terms of reservoir storage area and body height. There is a distance of 145m between the tail water(190m) and the body height(335m). As in Aslancık dam, it is not technically possible to make a passage over the dam body. Even if such a passage is made, it will not be possible for the fish rising from the tail water level (190 m) to the body (335 m) level to descend to the 305 m water level when the water level in the reservoir is minimum (305 m).

2.2 Local Stakeholder Consultation

The project owner has decided to take actions related with VER carbon credits and their incomes for Boyabat Hydroelectric Power Plant approximately 9 years and half ago. The project owner was informing to the villager of Beybükü related with this hydro power plant.

And the beginning of this 2021, the project owner, the headman of Beybükü village and other villagers was hold a meeting. During this meeting, all details including environmental and social benefits of this project, sustainable development goals has explained again and taken their comments by project owner. They have known all details and support from beginning construction phases of this Boyabat Hydroelectric

Power Plant. The muchtar stated that this project does not have a negative impact and they were glad about the project's social and environmental benefits as a local stakeholder.

In case of any complaint or request, the stakeholders can communicate the situation to the villagers working in the project and the project owner response it asap.

There is no complaint received during the current monitoring period.

There is no update and/or design change during this monitoring period. Yet, if there was any, project owner would consider the effects of the change on local people and take their opinion into account.

After implementation of the project, no unexpected change has expected to occur with respect to risks, cost of locals. In terms of regulation, staffs have been trained as per the requirements of their assignment and regulations. Trainings include occupational health and safety, working at height and dangerous work, working under high voltage. Details of the trainings organized for staff has been submitted to DOE.

3 IMPLEMENTATION STATUS

3.1 Implementation Status of the Project Activity

The project construction was completed in November 2012, and on 22nd November 2012 DSI approved the project, and on 29 November 2012, The Ministry of Energy and Natural resources approved the project and the project started to official export electricity to the host country grid.

During the monitoring period (01-08-2014 to 30-04-2020, both days inclusive). The project activity was operational and there were no major incidences to report.

The project consultant has also been changed. Although it is stated as EKOBIL Environmental Services and Consulting Ltd., the project was shifted to RÜZGAR Danışmanlık during this verification period.

3.2 Deviations

3.2.1 Methodology Deviations

The UNFCCC methodology of ACM0002/ Version 14.0.0 and its related tools have been applied without any deviations.

3.2.2 Project Description Deviations

The source of the parameter "Quantity of net electricity delivered to the grid in year y" is given as "Market Financial Settlement Center (PMUM) records to be used in emission calculation figures. However, as PMUM system is not active anymore (PMUM to OSOS and EPIAŞ took place on 12/03/2015)⁶, we have used OSOS records for EG and ER calculations. The source for the cross-check of the amount of produced electricity is "EPIAŞ" for each month.

⁶ <https://www.epias.com.tr/epias-kurumsal/tarihce/>

The project consultant (other entity involved in the project) has also been changed. Although it is stated as EKOBIL Environmental Services and Consulting Ltd., the project was shifted to Çağla Balcı Eriş-RÜZGAR Danışmanlık during this verification period.

There is no need to monitor of $EGPP_{self\ consumption}^{TEDAS, y}$ parameter because serial Number of the Meter is 60023357 not used after first monitoring period and this consumption is measured along with currently available three main and three back-up meters.

3.3 Grouped Projects

Not applicable, project activity is not a grouped project or part of a debundled activity.

4 DATA AND PARAMETERS

4.1 Data and Parameters Available at Validation

| | |
|---|---|
| Data / Parameter | FC _{i,y} |
| Data unit | Volume Unit (cubic meter) |
| Description | Amount of fuel <i>i</i> consumed by relevant power plants in Turkey in years, 2010, 2011, 2012. |
| Source of data | Official publications at the Turkish Electricity Transmission Company (TEİAŞ) Web Site (http://www.teias.gov.tr/TürkiyeElektrikIstatistikleri/istatistik2012/yakit48-53/49.xls) |
| Value applied | <i>Please see Appendix II, Table 1</i> |
| Justification of choice of data or description of measurement methods and procedures applied | Once for each crediting period using the most recent three historical years for which data is available at the time of submission of the VCS-PD to the DOE for validation |
| Purpose of Data | <i>Data used for the calculation of EF_{grid,OM,Simple,y}</i> |
| Comments | Data used is taken from the TEİAŞ website, which is the website of the Turkish Electricity Distribution Company. The data published on the TEİAŞ website is the most up-to date and reliable data available for the Turkish grid. |

| | |
|-------------------------|--|
| Data / Parameter | NCV _{i,y} |
| Data unit | GJ/Mass or Volume Unit |
| Description | <i>Net Calorific Values for fossil fuel type <i>i</i> in year, for the years 2010, 2011 and 2012</i> |
| Source of data | Regional or national average default values that are reliable and documented in national |

| | |
|---|---|
| | energy statistics of the Turkish Electricity Transmission Company Web Site (http://www.teias.gov.tr/TürkiyeElektrikİstatistikleri/istatistik2012/yakit48-53/49.xls) http://www.teias.gov.tr/TürkiyeElektrikİstatistikleri/istatistik2012/yakit48-53/51.xls |
| Value applied | Please see Appendix II, Table-5 |
| Justification of choice of data or description of measurement methods and procedures applied | Data used is taken from the TEİAŞ website, which is the website of the Turkish Electricity Distribution Company. The data published on the TEİAŞ website is the most up-to date and reliable data available for the Turkish grid. |
| Purpose of Data | <i>Please see Approved PD Ver 1.01 – 24/07/2014</i> |
| Comments | Data used for the calculation of EF _{grid,OM,Simple,y} . As data on the NCV is not published directly on the TEİAŞ website, this data is calculated using the heating values of fuels and the volume or mass of fuels consumed for each year. |

| | |
|---|---|
| Data / Parameter | <i>EF_{CO2,i,y}</i> |
| Data unit | <i>tCO2/GJ</i> |
| Description | <i>CO2 emission factor of fossil fuel type i in year y</i> |
| Source of data | IPCC default values at the lower limit of the uncertainty at a 95% confidence interval as provided in table 1.4 of Chapter1 of Vol. 2 (Energy) of the 2006 IPCC Guidelines on National GHG Inventories |
| Value applied | <i>Please see Approved PD Ver 1.01 – 24/07/2014 and Appendix II, Table-2</i> |
| Justification of choice of data or description of measurement methods and procedures applied | According to the “Tool to calculate the emission factor for an electricity system” version 04.0.0 , if values provided by the fuel supplier of the power plants in invoices or regional or national average defaults values are not available the IPCC default values at the lower limit of uncertainty must be used. |
| Purpose of Data | <i>Data used for the calculation of EF_{grid,OM,Simple,y}</i> |
| Comments | - |

| | |
|-------------------------|--|
| Data / Parameter | EG_y |
| Data unit | MWh |
| Description | Net electricity generated in the project electricity system in other words, net electricity generated and delivered to the grid by all power sources serving the system, not including low-cost / must-run power plants / units, in year y |
| Source of data | Turkish Electricity Transmission Company Web Site http://www.teias.gov.tr/TürkiyeElektrikİstatistikleri/istatistik2012/uretim%20tuketim(23-47)/34(84-12).xls |

| | |
|---|---|
| Value applied | <i>Please see Approved PD Ver 1.01 – 24/07/2014 and Appendix II, Table-3 and Table-4</i> |
| Justification of choice of data or description of measurement methods and procedures applied | Data used is taken from the TEİAŞ website, which is the website of the Turkish Electricity Distribution Company. The data published on the TEİAŞ website is the most up-to-date and reliable data available for the Turkish grid. |
| Purpose of Data | Data used for the calculation of EFgrid,OM,Simple,y |
| Comments | - |

| | |
|---|--|
| Data / Parameter | <i>EG_{m,y}</i> |
| Data unit | <i>MWh</i> |
| Description | <i>Net electricity generated and delivered to the grid by power unit m in year y</i> |
| Source of data | Turkish Electricity Transmission Company Web Site (www.teias.gov.tr). Data is extracted from the relevant annexes of the capacity projection reports for the years 2010, 2011 and 2012. ⁷ |
| Value applied | <i>Please see Approved PD Ver 1.01 – 24/07/2014 and Appendix II, Table-8</i> |
| Justification of choice of data or description of measurement methods and procedures applied | Data used is taken from the TEİAŞ website, which is the website of the Turkish Electricity Distribution Company. The data published on the TEİAŞ website is the most up-to-date and reliable data available for the Turkish grid |
| Purpose of Data | <i>Data used for the calculation of EFgrid,BM,y</i> |
| Comments | - |

| | |
|---|---|
| Data / Parameter | <i>η_{m,y}</i> |
| Data unit | - |
| Description | <i>Average net energy conversion efficiency of power unit m in year y</i> |
| Source of data | The default values provided at the Annex 1 of the “Tool to calculate emission factor for an electricity sector (Version 04.0.0)” are used |
| Value applied | Please see Annex 1 of the “Tool to calculate emission factor for an electricity sector (Version 04.0.0)” |
| Justification of choice of data or description of measurement methods and procedures applied | According to the “tool to calculate emission factor for an electricity system if documented manufacturer’s specifications or data from the utility, the dispatch center or official records are not available then the default values given in Annex 1 of the tool shall be used. The first two options are not available for the power plants supplying the Turkish grid; therefore the default values are used. |
| Purpose of Data | Data used for the calculation of EFgrid,BM,y |

⁷ <http://www.teias.gov.tr/KAPASITEPROJEKSIYONU2012.pdf>

| | |
|----------|---|
| Comments | - |
|----------|---|

| | |
|--|---|
| Data / Parameter | <i>EF_{grid,CMY}</i> |
| Data unit | tCO ₂ /MWh |
| Description | <i>Baseline emission factor: the combined emission factor of the project grid system</i> |
| Source of data | Validated VCS Project Description (Version 1.0.1) of the Project. |
| Value applied | 0.514 tCO ₂ /MWh |
| Justification of choice of data or description of measurement methods and procedures applied | According to the “tool to calculate emission factor for an electricity system if documented manufacturer’s specifications or data from the utility, the dispatch center or official records are not available then the default values given in Annex 1 of the tool shall be used. The first two options are not available for the power plants supplying the Turkish grid; therefore the default values are used. |
| Purpose of Data | <i>Baseline emission calculation</i> |
| Comments | EF _{grid,CMY} value (0.514 tCO ₂ /MWh) is valid for the duration of the crediting period which is between 29/11/2012 and 28/11/2022 |

4.2 Data and Parameters Monitored

| | |
|---|---|
| Data / Parameter | EF _{Res} |
| Data unit | kgCO _{2e} /MWh |
| Description | Default emission factor for emissions from reservoirs |
| Source of data | Decision by EB 23 |
| Description of measurement methods and procedures to be applied | Default value has been used. |
| Frequency of monitoring/recording | Default value has been used. |
| Value monitored | 90 kg CO _{2e} /MWh |
| Monitoring equipment | N/A |
| QA/QC procedures to be applied | N/A |
| Purpose of the data | Calculating Project emissions. |
| Calculation method | N/A |

| | |
|-----------------|---|
| Comments | - |
|-----------------|---|

| | |
|--|--|
| Data / Parameter | <i>EGPP-self consumption, y</i> |
| Data unit | <i>MWh</i> |
| Description | <i>Quantity of electricity imported by the power plant from the Grid for self consumption, in year y</i> |
| Source of data | The source of the parameter “Quantity of net electricity delivered to the grid in year y” is given as “Market Financial Settlement Center (PMUM) records to be used in emission calculation figures. However, as PMUM system is not active anymore (PMUM to OSOS and EPIAŞ took place on 12/03/2015) , we have used EPIAS records for EG and ER calculations. The source for the cross-check of the amount of produced electricity is “OSOS” for each month. |
| Description of measurement methods and procedures to be applied | Measurements are to be made by electricity meters that belong to the grid operator, TEIAS. There are three meters that record the electricity coming over three different lines identified as U1 ANA, U2 Ana and U3 Ana. The internal consumption data is the sum of the amount of electricity recorded to be imported from the grid by these three main meters. The meters are in compliance with the collected data. Data used to calculate the net electricity supplied to the grid. The meter readings are accessible via an Automatic Meter Reading Software remotely by the project owner, via a software, and data is automatically recorded to the OSOS and EPIAŞ servers to be obtained as monthly screen outputs. Only the main meter readings are accessible but there are back up meters to ensure data recording in case of main meter failure. |
| Frequency of monitoring/recording | Recorded continuously, read remotely by TEIAS, and accessible monthly via the OSOS and EPIAŞ records , Reported annually on the Monitoring Report. |
| Value monitored | 33,220.078 MWh |
| Monitoring equipment | As defined in the official TEIAS invoice the Meter Brand Type is ELSTER A 1500 Main Electricity U1: ELSTER A 1500 Serial Number: 00452660 Main Electricity U2: ELSTER A 1500 Serial Number: 00452662 Main Electricity U3: ELSTER A 1500 Serial Number: 00452664 Back-up Electricity U1: ELSTER A 1500 Serial Number: 00452661 (data is only obtained if there is a failure in the main meter-1, the readings are not recorded or kept otherwise) Back-up Electricity U2: ELSTER A 1500 Serial Number: 00452663 (data is only obtained if there is a failure in the main meter-2, the readings are not recorded or kept otherwise) |

| | |
|---------------------------------------|---|
| | <p>Back-up Electricity U3:ELSTER A 1500 Serial Number: 00452665 (data is only obtained if there is a failure in the main meter-3, the readings are not recorded or kept otherwise)</p> <p>The initial test of these meters performed by TEIAS on 03/12/2012. A periodical test is performed by TEIAS to control the accuracy of the measurement devices on 14/11/2016, 17/07/2018 and 17/09/2020.</p> <p>*The meters changed on 11/03/2021 with EMH brand meters. The new serial numbers are;</p> <p>Main Electricity U1:10013199</p> <p>Main Electricity U2:10013201</p> <p>Main Electricity U3:10013203</p> <p>Back-up Electricity Electricity U1:10013200</p> <p>Back-up Electricity Electricity U2:10013202</p> <p>Back-up Electricity Electricity U3:10013204</p> <p>New meters test report date is 11/03/2021</p> <p>All meters are in compliance with the communiqué for Metering Devices to be used in the Electricity Market.⁸ They have an accuracy class of Class0,2S indicating an accuracy range of $\pm 0.2\%$.</p> |
| QA/QC procedures to be applied | <p>Measurements carried out in compliance with the communiqué for Metering Devices to be used in the Electricity Market. The minimum accuracy of the meters are Class0,5S, that is to say should be within the $\pm 0.5\%$ (± 0.005) range. The monthly reported meter readings (provided on main meter monthly protocols) by the main meters cross-checked with EPIAS Records.</p> <p>Calibration of the meters are valid for 10 years based on related regulation.⁹ TEIAS Electricity Authorized Distribution Company is the responsible entity from calibrations through measuring instruments regulation.</p> |
| Purpose of the data | Calculating Project emissions. |
| Calculation method | Direct continuous measurement |
| Comments | Data used to calculate net electricity supplied to the grid. |
| Data / Parameter | Cap_{PI} |
| Data unit | W |

⁸ <https://www.resmigazete.gov.tr/eskiler/2016/06/20160629-22.htm>

⁹ <https://www.resmigazete.gov.tr/eskiler/2016/06/20160629-22.htm>

| | |
|--|--|
| Description | Installed capacity of the hydro power plant after the implementation of the project activity |
| Source of data | Project Site/Generation License (13.11.2007) |
| Description of measurement methods and procedures to be applied | N/A |
| Frequency of monitoring/recording | Yearly |
| Value monitored | 513,000,000 We / 528,000,000 Wm |
| Monitoring equipment | N/A |
| QA/QC procedures to be applied | N/A |
| Purpose of the data | Calculate power density |
| Calculation method | - |
| Comments | - |

| | |
|--|---|
| Data / Parameter | <i>EGPP-GrossProduction, y</i> |
| Data unit | <i>MWh</i> |
| Description | <i>Quantity of electricity exported by the power plant to the Grid, in year y</i> |
| Source of data | The source of the parameter “Quantity of net electricity delivered to the grid in year y” is given as “Market Financial Settlement Center (PMUM) records to be used in emission calculation figures. However, as PMUM system is not active anymore (PMUM to OSOS and EPIAŞ took place on 12/03/2015) , we have used EPIAŞ records for EG and ER calculations. The source for the cross-check of the amount of produced electricity is “OSOS” for each month. |
| Description of measurement methods and procedures to be applied | Measurements are to be made by electricity meters that belong to the grid operator, TEİAŞ. There are three meters that record the electricity coming over three different lines identified as U1 ANA, U2 Ana and U3 Ana. The internal consumption data is the sum of the amount of electricity recorded to be imported from the grid by these three main meters. The meters are in compliance with the collected data. Data be used to calculate the net electricity supplied to the grid. The meter readings are accessible via an Automatic Meter Reading Software remotely by the project owner, via a software, and data is automatically recorded to the OSOS and EPIAŞ servers to be obtained as monthly screen outputs. Only the main meter readings are accessible but there are back up meters to ensure data recording in case of main meter failure. |

| | |
|--|---|
| Frequency of monitoring/recording | Recorded continuously, read remotely by TEIAS, and accessible monthly via the OSOS and EPIAŞ Records , Reported annually on the Monitoring Report. |
| Value monitored | 4,005,735.439 MWh |
| Monitoring equipment | <p>As defined in the official TEIAS invoice the Meter Brand Type is ELSTER A 1500</p> <p>Main Electricity U1: ELSTER A 1500 Serial Number: 00452660</p> <p>Main Electricity U2: ELSTER A 1500 Serial Number: 00452662</p> <p>Main Electricity U3: ELSTER A 1500 Serial Number: 00452664</p> <p>Back-up Electricity U1: ELSTER A 1500 Serial Number: 00452661 (data is only obtained if there is a failure in the main meter-1, the readings are not recorded or kept otherwise)</p> <p>Back-up Electricity U2: ELSTER A 1500 Serial Number: 00452663 (data is only obtained if there is a failure in the main meter-2, the readings are not recorded or kept otherwise)</p> <p>Back-up Electricity U3:ELSTER A 1500 Serial Number: 00452665 (data is only obtained if there is a failure in the main meter-3, the readings are not recorded or kept otherwise)</p> <p>The initial test of these meters performed by TEIAS on 03/12/2012. A periodical test is performed by TEIAS to control the accuracy of the measurement devices on 14/11/2016, 17/07/2018 and 17/09/2020.</p> <p>*The meters changed on 11/03/2021 with EMH brand meters. The new serial numbers are;</p> <p>Main Electricity U1:10013199</p> <p>Main Electricity U2:10013201</p> <p>Main Electricity U3:10013203</p> <p>Back-up Electricity Electricity U1:10013200</p> <p>Back-up Electricity Electricity U2:10013202</p> <p>Back-up Electricity Electricity U3:10013204</p> <p>New meters test report date is 11/03/2021</p> <p>All meters are in compliance with the communiqué for Metering Devices to be used in the Electricity Market. They have an accuracy class of Class0,2S indicating an accuracy range of $\pm 0.2\%$.</p> |
| QA/QC procedures to be applied | Measurements carried out in compliance with the communiqué for Metering Devices to be used in the Electricity Market. The minimum accuracy of the meters are Class0,2S, that is to say should be within the $\pm 0.2\%$ (± 0.002) range. The monthly reported meter readings (provided on main meter monthly protocols) by the main meters, cross-checked with EPIAS records. |

| | |
|----------------------------|---|
| | Calibration of the meters are valid for 10 years based on related regulation. ¹⁰ TEIAS Electricity Authorized Distribution Company is the responsible entity from calibrations through measuring instruments regulation. |
| Purpose of the data | Calculating Baseline emissions. |
| Calculation method | Direct continuous measurement |
| Comments | Data used to calculate net electricity supplied to the grid. |

| | |
|--|---|
| Data / Parameter | APJ |
| Data unit | m ² |
| Description | Area of the single reservoir measured in the surface of the water, after the implementation of the project activity, when the reservoir is full |
| Source of data | Project site |
| Description of measurement methods and procedures to be applied | <p>Indirectly determined using the Volume Area Depth curve presented in Annex-1. The Water level data is determined via the Water Level Measurement that consist of 5 transmitters for:</p> <ul style="list-style-type: none"> - 1x Head Water - 3x Head Water after Trash Rack - 1x Tail Water <p>Transmitter Type:</p> <p>-Rittmeyer MPB - Submersible Pressure Transmitter 4-20mA 2-wire¹¹</p> <p>The measured depth is than recorded via the SCADA system, and presented as an excel sheet to the carbon consultant.</p> |
| Frequency of monitoring/recording | Yearly |
| Value monitored | 65,400,000 m ²¹² |
| Monitoring equipment | Pressure Transmitter |
| QA/QC procedures to be applied | - |
| Purpose of the data | Calculate Project Emissions |
| Calculation method | - |

¹⁰ <https://www.resmigazete.gov.tr/eskiler/2016/06/20160629-22.htm>

¹¹ The specifications of the pressure gauge is provided to the validating DOE.

¹²Registered PD and verification process documents

4.3 Monitoring Plan

The monitoring plan mainly involves proper preparation of a spreadsheet and reporting of it. Monitoring carried out with the help of a spreadsheet and supporting documentation. All data used for the monitoring plan archived electronically and backed up regularly. These data kept for the full crediting period and a further two years after the end of the crediting period or the last issuance of carbon credits, whichever occurs later.

According to the Turkish Law and Regulations, the methods of monitoring the net electricity fed to the grid and quality control and assures are explained below:

Monitoring data is collected in accordance with the agreement done between the project owner and Turkish Electricity Distribution Company which provides the infrastructure for the connection to the national grid. Connection Agreement has signed on 20/05/2019 with TEİAŞ Electricity Authorised Distribution Company. System usage agreement has signed on 05/04/2019 with TEİAŞ. The metering system is defined in the agreement as two groups: main meter and spare meter. The design of the metering system is checked and approved by TEİAŞ before commissioning of the plant. The technical specifications of the power meters should be in line with Measure and Metering Devices Regulation by Ministry of Industry and Trade. In addition, the Communiqué for Power Meters announced by Energy Market Regulations Authority (EMRA) requires all meters to be in line with either Turkish Standards Institution or International Electrotechnical Commissions Standards. The meters are placed at the point the electricity is fed to the grid and sealed on behalf of the both parties. This prevents any intervention and assures the accuracy and quality of the measurements. All requirements and specifications of the meters done according to Communiqué on the counter to be used in the Electricity Market by Energy Market Regulatory Authority on 22.04.2011.

There is not any specific internal auditing and non-conformities procedures regarding to VCS verification or validation. Test and calibration of the meters is under TEİAŞ responsibility.

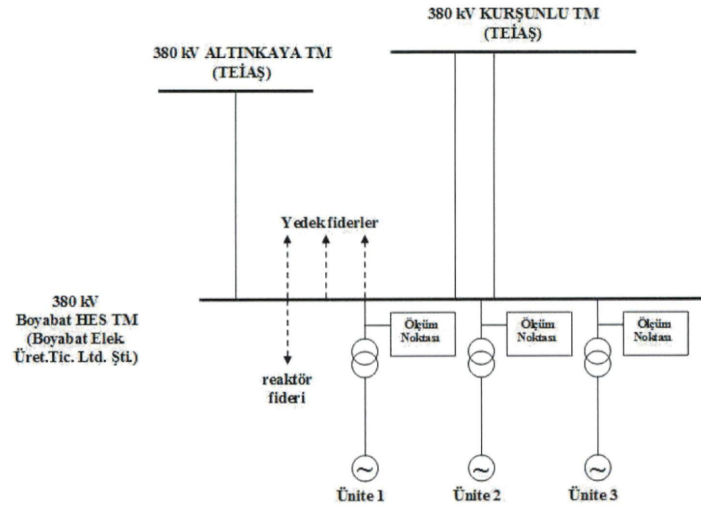
Each project activity has a certain amount of self-electricity consumption. Similar to energy generation, energy consumption is also recorded and accounted for the invoicing. The electricity consumption of the project mostly be covered by the Project's own electricity generation and the remaining power is the one which is measured and fed to the transmission line. In cases when the Project's own power generation is not high enough to cover its own consumption, electricity from the grid is used. This usage is measured also by the two measurement devices.

Data is stored electronically, during the crediting period and at least two years after the last issuance of credits for the project activity in the concerning crediting period. The Project Participant is responsible for storage of data received from the measuring devices.

The water level at the reservoir lake is monitored to directly calculate the reservoir area. The reservoir area value is then used to check if the power density of the project activity is greater than $4 \text{ m}^2/\text{W}$. After measuring the water level the data is recorded at every 15 minutes, and sampled daily. At the end of each monitoring period the

maximum water level is obtained from the recorded data, and that number is utilized to calculate maximum aerial extent of the reservoir lake as shown in Annex1.

Figure 4 : The Line Diagram of Boyabat HEPP



The water level is measured via pressure gauges. The features of the pressure gauges are as follows:

Features

- Two Wire technique
 - Piezoresistive sensing element
 - Output signal 4-20 mA
 - Pressure type Gauge, Absolute
 - Accuracy ± 0.1 % FS
 - Calibration in bar / psi / mWC
 - Standard DIN measuring ranges between 0 ...100 mbar and 0 ...25 bar or selection of measuring ranges in psi or mWC
 - Adjustable within : 4 of the nominal pressure range
 - Temperature compensated within
- 10 °C ... +50 °C [+14 °F ... +122 °F] or
- 25 °C ... +85 °C [-13 °F ... +185 °F]

Objectives of the monitoring program

The Monitoring plan is developed to ensure that the Project Activity is well organized from the start in terms of the collection and archiving of complete and reliable data that is needed to ensure reliable and accurate measurements of actual emission reductions.

Who will be performing the monitoring?

The monitoring conducted by the Verified Emission Reduction (VER) Monitoring Team. The VER Team Members
The Boyabat HPP has 28 employee.

Positions and responsibilities of the VER monitoring team members.

Position Responsibility

Boyabat HEPP Manager

- Day to day operation of the Boyabat HPP,
- Compliance of the project activity with the host country rules and regulations
- Coordination of the data collection and recording for the monitoring report.

Chief Electrical Technician

- Day to day follow up of electrical equipment
- Recording and monitoring of the electricity generation data via the meters located at the

Boyabat Switchyard

- Making regular checks of the consistency of the back up meters to ensure the operation of the main meters.
- Preparation and update of BOYABAT HPP_Operation Reports

Accounts Manager

- Data keeping for power sales
- Extracting the main meter readings (main meter monthly protocols) from the PMUM/MFRC website with the help of the account credentials assigned to the project owner.

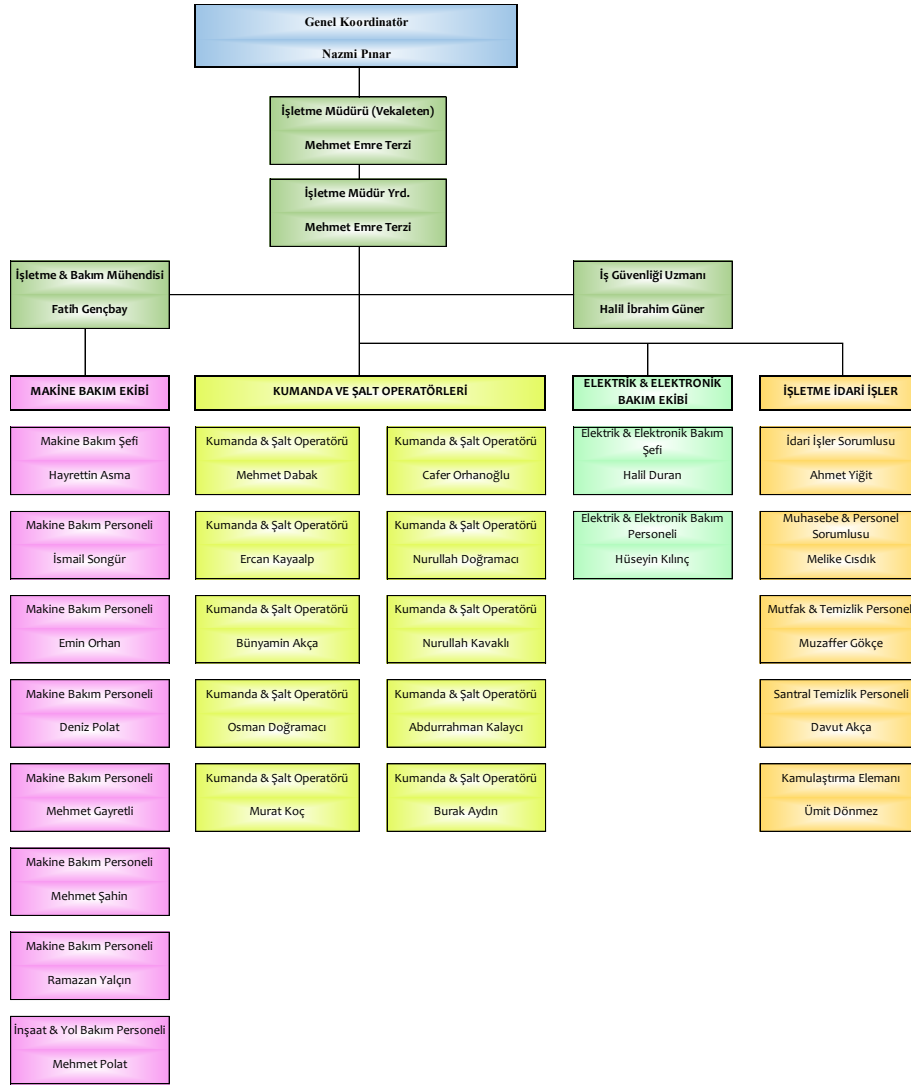
Chief Mechanical Technician

- Day to day operation of the power plant
- Keeping records of malfunctions and repairs

Carbon Consultant (Rüzgar Danışmanlık)

- Emission reduction calculations
- Scripting of the periodic monitoring report
- Follow up of the verification process

Figure-4 Boyabat HEPP Organization Chart



5 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

5.1 Baseline Emissions

The following table (Table 3) is the Baseline emissions of the project calculated for the monitoring period (01 August 2014 to 30 April 2020 –both days inclusive). Table exhibits the baseline emissions realized on a monthly basis.

Table 3 Monthly baseline emissions realized for the monitoring period¹³

¹³ ER Calculation Excel Sheet Revised EPIAS

| Month | (A) Electricity supplied to the grid [kWh] | (B) Electricity consumption from the grid [kWh] | (C) = (A) - (B) EG (ID 8) Net electricity supplied to the grid [kWh] | EF [tCO ₂ /MWh] | Baseline emission: BR = EG * EF [t CO ₂ -eq] |
|-------------------|--|---|---|----------------------------|--|
| August 2014 | 137,131,600 | 303,222 | 136,828,378 | 0.514 | 70,330 |
| September 2014 | 103,178,515 | 332,584 | 102,845,931 | 0.514 | 52,863 |
| October 2014 | 96,886,222 | 448,292 | 96,437,930 | 0.514 | 49,569 |
| November 2014 | 91,508,009 | 435,172 | 91,072,837 | 0.514 | 46,811 |
| December 2014 | 83,300,051 | 426,091 | 82,873,960 | 0.514 | 42,597 |
| Total 2014 | 512,004,397 | 1,945,361 | 510,059,036 | 0.514 | 262,170 |
| January 2015 | 68,801,822 | 840,237 | 67,961,585 | 0.514 | 34,932 |
| February 2015 | 52,814,973 | 609,642 | 52,205,331 | 0.514 | 26,834 |
| March 2015 | 17,865,882 | 680,172 | 17,185,710 | 0.514 | 8,833 |
| April 2015 | 16,145,277 | 622,485 | 15,522,792 | 0.514 | 7,979 |
| May 2015 | 40,072,574 | 496,756 | 39,575,818 | 0.514 | 20,342 |
| June 2015 | 11,998,094 | 1,047,003 | 10,951,091 | 0.514 | 5,629 |
| July 2015 | 140,860,068 | 1,138,096 | 139,721,972 | 0.514 | 71,817 |
| August 2015 | 165,243,508 | 974,970 | 164,268,538 | 0.514 | 84,434 |
| September 2015 | 148,011,240 | 577,124 | 147,434,116 | 0.514 | 75,781 |
| October 2015 | 65,810,112 | 475,419 | 65,334,693 | 0.514 | 33,582 |
| November 2015 | 108,530,220 | 399,318 | 108,130,902 | 0.514 | 55,579 |
| December 2015 | 92,250,221 | 484,627 | 91,765,594 | 0.514 | 47,168 |
| Total 2015 | 928,403,991 | 8,345,849 | 920,058,142 | 0.514 | 472,910 |
| January 2016 | 81,452,639 | 479,814 | 80,972,825 | 0.514 | 41,620 |
| February 2016 | 17,479,484 | 513,605 | 16,965,879 | 0.514 | 8,720 |
| March 2016 | 29,501,767 | 467,524 | 29,034,243 | 0.514 | 14,924 |
| April 2016 | 23,332,395 | 452,118 | 22,880,277 | 0.514 | 11,760 |
| May 2016 | 29,401,314 | 437,394 | 28,963,920 | 0.514 | 14,887 |
| June 2016 | 64,142,605 | 487,818 | 63,654,787 | 0.514 | 32,719 |
| July 2016 | 79,863,149 | 475,247 | 79,387,902 | 0.514 | 40,805 |
| August 2016 | 163,073,473 | 260,086 | 162,813,387 | 0.514 | 83,686 |
| September 2016 | 103,548,093 | 377,466 | 103,170,627 | 0.514 | 53,030 |
| October 2016 | 70,293,643 | 784,985 | 69,508,658 | 0.514 | 35,727 |
| November 2016 | 87,017,283 | 463,748 | 86,553,535 | 0.514 | 44,489 |
| December 2016 | 78,307,820 | 580,172 | 77,727,648 | 0.514 | 39,952 |
| Total 2016 | 827,413,665 | 5,779,977 | 821,633,688 | 0.514 | 422,320 |
| January 2017 | 77,767,365 | 658,700 | 77,108,665 | 0.514 | 39,634 |
| February 2017 | 36,996,572 | 522,409 | 36,474,163 | 0.514 | 18,748 |
| March 2017 | 19,201,962 | 621,536 | 18,580,426 | 0.514 | 9,550 |
| April 2017 | 19,704,160 | 423,036 | 19,281,124 | 0.514 | 9,910 |
| May 2017 | 18,924,440 | 398,896 | 18,525,544 | 0.514 | 9,522 |
| June 2017 | 15,084,309 | 493,867 | 14,590,442 | 0.514 | 7,499 |
| July 2017 | 84,645,243 | 409,169 | 84,236,074 | 0.514 | 43,297 |

| | | | | | |
|-------------------|--------------------|------------------|--------------------|--------------|----------------|
| August 2017 | 96,355,429 | 370,086 | 95,985,343 | 0.514 | 49,336 |
| September 2017 | 113,179,227 | 336,235 | 112,842,992 | 0.514 | 58,001 |
| October 2017 | 80,758,603 | 410,454 | 80,348,149 | 0.514 | 41,299 |
| November 2017 | 24,356,058 | 543,430 | 23,812,628 | 0.514 | 12,240 |
| December 2017 | - | 603,561 | 603,561 | 0.514 | - 310 |
| Total 2017 | 586,973,368 | 5,791,379 | 581,181,989 | 0.514 | 298,728 |
| January 2018 | 108,129,962 | 417,157 | 107,712,805 | 0.514 | 55,364 |
| February 2018 | 19,206,386 | 519,225 | 18,687,161 | 0.514 | 9,605 |
| March 2018 | 32,960,212 | 458,557 | 32,501,655 | 0.514 | 16,706 |
| April 2018 | 40,082,855 | 366,562 | 39,716,293 | 0.514 | 20,414 |
| May 2018 | 20,147,741 | 380,065 | 19,767,676 | 0.514 | 10,161 |
| June 2018 | 13,146,199 | 480,648 | 12,665,551 | 0.514 | 6,510 |
| July 2018 | 87,324,524 | 427,044 | 86,897,480 | 0.514 | 44,665 |
| August 2018 | 76,303,347 | 402,799 | 75,900,548 | 0.514 | 39,013 |
| September 2018 | 29,937,232 | 451,205 | 29,486,027 | 0.514 | 15,156 |
| October 2018 | 6,343,994 | 497,693 | 5,846,301 | 0.514 | 3,005 |
| November 2018 | 30,376,117 | 494,004 | 29,882,113 | 0.514 | 15,359 |
| December 2018 | 6,209,648 | 577,771 | 5,631,877 | 0.514 | 2,895 |
| Total 2018 | 470,168,217 | 5,472,730 | 464,695,487 | 0.514 | 238,853 |
| January 2019 | 28,484,154 | 549,822 | 27,934,332 | 0.514 | 14,358 |
| February 2019 | 48,304,574 | 465,017 | 47,839,557 | 0.514 | 24,590 |
| March 2019 | 49,220,685 | 413,114 | 48,807,571 | 0.514 | 25,087 |
| April 2019 | 36,280,801 | 360,532 | 35,920,269 | 0.514 | 18,463 |
| May 2019 | 13,574,193 | 462,715 | 13,111,478 | 0.514 | 6,739 |
| June 2019 | 31,425,061 | 459,724 | 30,965,337 | 0.514 | 15,916 |
| July 2019 | 102,879,235 | 332,219 | 102,547,016 | 0.514 | 52,709 |
| August 2019 | 101,844,648 | 326,275 | 101,518,373 | 0.514 | 52,180 |
| September 2019 | 98,441,527 | 258,176 | 98,183,351 | 0.514 | 50,466 |
| October 2019 | 42,335,139 | 197,984 | 42,137,155 | 0.514 | 21,658 |
| November 2019 | 61,269,551 | 200,560 | 61,068,991 | 0.514 | 31,389 |
| December 2019 | 37,327,377 | 283,955 | 37,043,422 | 0.514 | 19,040 |
| Total 2019 | 651,386,945 | 4,310,093 | 647,076,852 | 0.514 | 332,598 |
| January 2020 | 9,195,206 | 364,097 | 8,831,109 | 0.514 | 4,539 |
| February 2020 | 4,698,825 | 380,855 | 4,317,970 | 0.514 | 2,219 |
| March 2020 | 10,318,390 | 424,346 | 9,894,044 | 0.514 | 5,086 |
| April 2020 | 5,172,435 | 405,391 | 4,767,044 | 0.514 | 2,450 |
| Total 2020 | 29,384,856 | 1,574,689 | 27,810,167 | | 14,294 |

5.2 Project Emissions

Project emission has been determined through ACM0002 Version 14 Section 5.4.3

During this monitoring period the maximum reservoir area is observed to be 65,400,000 m² (see Annex 1 for details). Therefore, the power density calculates as follows $513,000,000 \text{ W} / 65,400,000 \text{ m}^2 = 7.844 \text{ W/m}^2$.

Since power density (7.844 W/m²) is >4 W/m² but < 10 W/m² the project emissions need to be calculated.

The reservoir related project emissions can be calculated according to the following formula:¹⁴

$$PEHP,y = (E_{Res} \times TEG_y) / 1000$$

Where:

- *PEHP,y*: Project emissions from water reservoirs (t CO₂e/yr)
- *E_{Res}*: Default emission factor for emissions from reservoirs of hydro power plants in year y (kg CO₂e/MWh) (Which is 90 kg CO₂e/MWh¹⁵)
- *TEG_y*: Total electricity produced by the project activity, including the electricity supplied the grid and the electricity supplied to internal loads, in year y (MWh)

The calculate project emissions are as shown in the following table (Table 4).

Table 4 Project Emissions on a monthly basis.

| Month | Gross Electricity Production | Project Emission |
|-------------------|---|---------------------------------------|
| | (A) Electricity supplied to the grid [MWh] | PE _y tCO ₂ e |
| August 2014 | 137,132 | 12,342 |
| September 2014 | 103,179 | 9,286 |
| October 2014 | 96,886 | 8,720 |
| November 2014 | 91,508 | 8,236 |
| December 2014 | 83,300 | 7,497 |
| TOTAL 2014 | 512,004 | 46,080 |
| January 2015 | 68,802 | 6,192 |
| February 2015 | 52,815 | 4,753 |
| March 2015 | 17,866 | 1,608 |
| April 2015 | 16,145 | 1,453 |
| May 2015 | 40,073 | 3,607 |
| June 2015 | 11,998 | 1,080 |
| July 2015 | 140,860 | 12,677 |
| August 2015 | 165,244 | 14,872 |
| September 2015 | 148,011 | 13,321 |
| October 2015 | 65,810 | 5,923 |
| November 2015 | 108,530 | 9,768 |

¹⁴ ACM0002 Version 14 – Section 5.4.3

¹⁵ Default emission factor for emissions from reservoirs EB23

| | | |
|-------------------|----------------|---------------|
| December 2015 | 92,250 | 8,303 |
| TOTAL 2015 | 928,404 | 83,556 |
| January 2016 | 81,453 | 7,331 |
| February 2016 | 17,479 | 1,573 |
| March 2016 | 29,502 | 2,655 |
| April 2016 | 23,332 | 2,100 |
| May 2016 | 29,401 | 2,646 |
| June 2016 | 64,143 | 5,773 |
| July 2016 | 79,863 | 7,188 |
| August 2016 | 163,073 | 14,677 |
| September 2016 | 103,548 | 9,319 |
| October 2016 | 70,294 | 6,326 |
| November 2016 | 87,017 | 7,832 |
| December 2016 | 78,308 | 7,048 |
| TOTAL 2016 | 827,414 | 74,467 |
| January 2017 | 77,767 | 6,999 |
| February 2017 | 36,997 | 3,330 |
| March 2017 | 19,202 | 1,728 |
| April 2017 | 19,704 | 1,773 |
| May 2017 | 18,924 | 1,703 |
| June 2017 | 15,084 | 1,358 |
| July 2017 | 84,645 | 7,618 |
| August 2017 | 96,355 | 8,672 |
| September 2017 | 113,179 | 10,186 |
| October 2017 | 80,759 | 7,268 |
| November 2017 | 24,356 | 2,192 |
| December 2017 | 0 | - |
| TOTAL 2017 | 586,973 | 52,828 |
| January 2018 | 108,130 | 9,732 |
| February 2018 | 19,206 | 1,729 |
| March 2018 | 32,960 | 2,966 |
| April 2018 | 40,083 | 3,607 |
| May 2018 | 20,148 | 1,813 |
| June 2018 | 13,146 | 1,183 |
| July 2018 | 87,325 | 7,859 |
| August 2018 | 76,303 | 6,867 |
| September 2018 | 29,937 | 2,694 |
| October 2018 | 6,344 | 571 |
| November 2018 | 30,376 | 2,734 |
| December 2018 | 6,210 | 559 |
| TOTAL 2018 | 470,168 | 42,315 |
| January 2019 | 28,484 | 2,564 |
| February 2019 | 48,305 | 4,347 |
| March 2019 | 49,221 | 4,430 |
| April 2019 | 36,281 | 3,265 |

| | | |
|--------------------|------------------|----------------|
| May 2019 | 13,574 | 1,222 |
| June 2019 | 31,425 | 2,828 |
| July 2019 | 102,879 | 9,259 |
| August 2019 | 101,845 | 9,166 |
| September 2019 | 98,442 | 8,860 |
| October 2019 | 42,335 | 3,810 |
| November 2019 | 61,270 | 5,514 |
| December 2019 | 37,327 | 3,359 |
| TOTAL 2019 | 651,387 | 58,625 |
| January 2020 | 9,195 | 828 |
| February 2020 | 4,699 | 423 |
| March 2020 | 10,318 | 929 |
| April 2020 | 5,172 | 466 |
| TOTAL 2020 | 29,385 | 2,645 |
| GRAND TOTAL | 4,005,735 | 360,517 |

5.3 Leakage

According to ACM0002 Version 14 53th Paragraph No leakage emissions are considered. Boyabat HEPP is a green field project activity, thus no leakage emissions related to the project are expected and regarded.

5.4 Net GHG Emission Reductions and Removals

Total Emission Reduction has been determined as;

$$ER_y = BE_y - PE_y - LE_y$$

Where;

ER_y = Emission reductions in year y (tCO₂)

BE_y = Baseline emissions in year y (tCO₂)

PE_y = Project Emissions in year y (tCO₂)

LE_y = Leakage emissions in year y (tCO₂)

Project emission has been calculated through ACM0002 Version 14, Section 5.4.3

Leakage is considered as "0".

Thus, ER_y = BE_y - PE_y

The following table provides a summary of the emission reductions that result from the project activity during this monitoring period:

| Year | Baseline emissions or removals (tCO ₂ e) | Project emissions or removals (tCO ₂ e) | Leakage emissions (tCO ₂ e) | Net GHG emission reductions or removals (tCO ₂ e) |
|---------------------------------|---|--|--|--|
| 2014 (01/08/2014-31/12/2014) | 262,170 | 46,080 | 0 | 216,089 |
| 2015 (01/01/2015-31/12/2015) | 472,909 | 83,556 | 0 | 389,352 |
| 2016 (01/01/2016-31/12/2016) | 422,319 | 74,467 | 0 | 347,851 |
| 2017 (01/01/2017-31/12/2017) | 298,727 | 52,828 | 0 | 245,899 |
| 2018 (01/01/2018-31/12/2018) | 238,853 | 42,315 | 0 | 196,537 |
| 2019 (01/01/2019-31/12/2019) | 332,597 | 58,625 | 0 | 273,972 |
| 2020 (01/01/2020-30/04/2020) | 14,294 | 2,645 | 0 | 11,649 |
| Total | 2,041,869 | 360,517 | 0 | 1,681,349 |

According to carbon prices and hard to sell carbon credits between 2014-2020 the project owner not selected to verified the project activity emission reduction values until 2021.

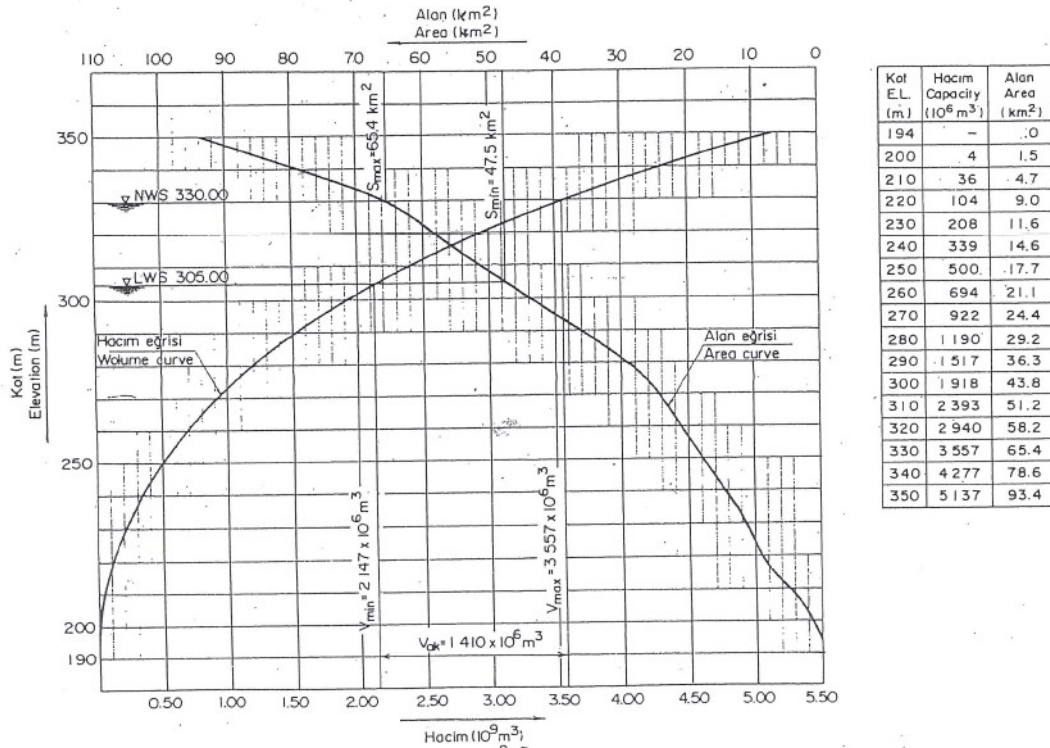
The actual ER is %50 lower than the estimated value. This is caused through seasonal conditions. Monitoring period includes 2100 days. During the validation annual ER estimation was 580,882 tCO₂e.¹⁶ According to monitoring period estimation is equal to 3,342,061 tCO₂e which is %50 higher than the actual emission reduction.

| Days | Estimation tCO ₂ eq | Actual tCO ₂ eq | Difference |
|---|--------------------------------|----------------------------|-------------|
| 01/08/2014-31/12/2014 | 243,493 | 216,089 | -11% |
| 2015 | 580,882 | 389,352 | -33% |
| 2016 | 580,882 | 347,851 | -40% |
| 2017 | 580,882 | 245,899 | -58% |
| 2018 | 580,882 | 196,537 | -66% |
| 2019 | 580,882 | 273,972 | -53% |
| Between 1/01/2020 and 30/04/2020 | 192,566 | 11,649 | -94% |
| Between 1/08/2014 and 30/04/2020 | 3,342,061 | 1,681,349 | -50% |

¹⁶ Approved VCS PD – 24/07/2014

APPENDIX- I: AREA OF RESERVOIR LAKE OF BOYABAT HEPP

The area of reservoir lake is determined indirectly as a correlation to the lake level using the following graph.¹⁷



Reference: Registered PD and first verification process' documents

The maximum water level recorded during the monitoring period is 330 m.

The Lake area that corresponds to that level is determined to be approximately 65,400,000 m².

Accordingly the power density is calculated as follow:

$$513,000,000 \text{ W} / 65,400,000 \text{ m}^2 = 7.844 \text{ W/m}^2$$

Since power density (7.844 W/m²) is >4 W/m² but < 10 W/m² the project emissions needs to be calculated.

¹⁷ Approved VCS PD – 24/07/2014

APPENDIX- II: BASELINE INFORMATION

Table 1: <http://www.teias.gov.tr/TürkiyeElektrikIstatistikleri/istatistik2012/yakit48-53/49.xls>

| |
|--|
| <p>http://www.teias.gov.tr/TürkiyeElektrikIstatistikleri/istatistik2012/yakit48-53/49.xls</p> <p>TÜRKİYE TERMİK SANTRALLARINDA TÜKETİLEN YAKIT MİKTARLARININ ÜRETİCİ KURULUŞLARA DAĞILIMININ YILLAR İTİBARIYLA GELİŞİMİ (BİRLEŞİK ISI-ELEKTRİK SANTRALLARINDA ISI ÜRETİMİ İÇİN KULLANILAN YAKITLAR DAHİL) ANNUAL DEVELOPMENT OF FUELS CONSUMED IN THERMAL POWER PLANTS IN TURKEY BY THE ELECTRIC UTILITIES (FUELS USED FOR HEAT PRODUCTION IN CHP PLANTS INCLUDED)</p> |
|--|

| | | Birim(Unit):Ton/Gaz(gas) 10 ³ m ³ | | | |
|---|-----------------------------|---|-------------------|-------------------|-------------------|
| | | 2010 | 2011 | 2012 | |
| EÜAŞ VE BAĞLI ORTAKLIKLARI <i>EÜAŞ AND AFFILIATED PARTNERSHIPS OF EÜAŞ</i> | Taşkömürü | <i>Hard Coal</i> | 1,563,792 | 1,700,458 | 1,254,622 |
| | Linyit | <i>Lignite</i> | 50,123,941 | 54,558,282 | 48,859,540 |
| | TOPLAM | TOTAL | 51,687,733 | 56,258,740 | 50,114,162 |
| | Fuel-Oil | <i>Fuel Oil</i> | 16,864 | 27,098 | 28,127 |
| | Motorin | <i>Diesel Oil</i> | 105,073 | 118,439 | 139,239 |
| | TOPLAM | TOTAL | 121,937 | 145,537 | 167,366 |
| | Motorin | <i>Diesel Oil</i> | 4 | 0 | 0 |
| | TOPLAM | TOTAL | 18,901 | 13,984 | 60,370 |
| | TOPLAM | TOTAL | 140,842 | 159,521 | 227,736 |
| | Doğal Gaz | <i>Natural Gas</i> | 4,493,275 | 4,173,420 | 4,427,602 |
| MOBİL SANTRALLAR <i>MOBILE POWER PLANTS</i> | Fuel-Oil | <i>Fuel Oil</i> | 0 | 0 | 0 |
| | Motorin | <i>Diesel Oil</i> | 0 | 0 | 0 |
| | TOPLAM | TOTAL | 0 | 0 | 0 |
| OTOPRODÜKTÖRLER ÜRETİM ŞİRKETLERİ İŞLETME HAKKI DEVİR ADÜAŞ* <i>AUTOPRODUCERS PRODUCTION COMP. TOOR ADÜAŞ</i> | Taşkömür+İthal kömür | <i>Hard Coal+Imported Coal</i> | 5,855,911 | 8,873,976 | 11,003,840 |
| | Linyit | <i>Lignite</i> | 6,565,451 | 6,949,028 | 6,882,923 |
| | TOPLAM | TOTAL | 12,421,362 | 15,823,004 | 17,886,763 |
| | Fuel-Oil | <i>Fuel Oil</i> | 769,845 | 386,071 | 397,430 |
| | Motorin | <i>Diesel Oil</i> | 1,449 | 1,063 | 116,009 |
| | LPG | <i>LPG</i> | 0 | 0 | 0 |
| | Nafta | <i>Naphta</i> | 13,140 | 0 | 0 |
| | TOPLAM | TOTAL | 784,434 | 387,134 | 513,439 |
| Doğal Gaz | <i>Natural Gas</i> | 17,290,139 | 18,631,167 | 18,662,519 | |
| TÜRKİYE <i>TURKEY</i> | Taşkömür+İthal kömür | <i>Hard Coal+Imported Coal</i> | 7,419,703 | 10,574,434 | 12,258,462 |
| | Linyit | <i>Lignite</i> | 56,689,392 | 61,507,310 | 55,742,463 |
| | TOPLAM | TOTAL | 64,109,095 | 72,081,744 | 68,000,925 |
| | Fuel-Oil | <i>Fuel Oil</i> | 891,782 | 531,608 | 564,796 |
| | Motorin | <i>Diesel Oil</i> | 20,354 | 15,047 | 176,379 |
| | LPG | <i>LPG</i> | 0 | 0 | 0 |
| | Nafta | <i>Naphta</i> | 13,140 | 0 | 0 |
| | TOPLAM | TOTAL | 925,276 | 546,655 | 741,175 |
| | Doğal Gaz | <i>Natural Gas</i> | 21,783,414 | 22,804,587 | 23,090,121 |

Not:Ayrıca Otoprodüktör santrallerde kullanılan Ağaç Kabuğu, Talaş ,Sıvı Kükürt, Siyah Likör, Katran, Kükürt keki , Kok Gazı, YF Gazı Rafineri gazı,Biogaz ve Endüstriyel atık ile ilgili miktarlar tabloda yer almamaktadır.

Note: Quantities of Wood Wastes, Liquid Sulphur, Black Liquor, Bitumen Pyrite,Sulphur Cake etc. and Natural Gas,Coke Oven Gas , Blast Furnace Gas and Refinery Gas values used by autoproducers are not included in the table.

* ADÜAŞ'ın lisansı Eylül 2008 tarihinde serbest üretim lisansına dönüştürülmüştür.

ADÜAŞ's license has been turned into the IPP license in September 2008

Table-2: IPCC Default CO₂ Emission Factors

| Fuel Type: | EF (tCO ₂ /TJ) | Fuel Type: | EF (tCO ₂ /TJ) |
|------------|---------------------------|-------------|---------------------------|
| Coal | 92.80 | LPG | 61.60 |
| Lignite | 90.90 | Naphta | 69.30 |
| Fuel Oil | 75.50 | Natural Gas | 54.30 |
| Diesel | 72.60 | Bitumen | 73.00 |

Table 3:

Source: <http://www.teias.gov.tr/TürkiyeElektrikİstatistikleri/istatistik2012/yakit48-53/51.xls>

| TÜRKİYE TERMİK SANTRALLARINDA TÜKETİLEN YAKITLARIN KURULUŞLARA GÖRE ISI DEĞERLERİ (BİRLEŞİK ISI-ELEKTRİK SANTRALLARINDA ISI ÜRETİMİ İÇİN KULLANILAN YAKITLAR DAHİL) HEATING VALUES OF FUELS CONSUMED IN THERMAL POWER PLANTS IN TURKEY BY THE ELECTRIC UTILITIES (FUELS USED FOR HEAT PRODUCTION IN CHP PLANTS INCLUDED) | | | | | | |
|--|---------------------------|---------------------------|----------------|----------------|----------------|----------------|
| Birim(Unit): Tcal | | | | | | |
| EÜAŞ VE BAĞLI ORTAKLIKLARI | Taşkömürü | Hard Coal | 2010 | 2011 | 2012 | |
| | | Linyit | Lignite | 4,990 | 5,511 | 4,062 |
| | TOPLAM | Total | 85,957 | 96,863 | 82,431 | |
| EÜAŞ AND AFFILIATED PARTNERSHIPS OF EÜAŞ | Fuel-Oil Fuel Oil | Asıl Yakıt Main Fuel | 162 | 261 | 269 | |
| | | Yrd. Yakıt Auxiliary Fuel | 1,009 | 1,137 | 1,337 | |
| | | TOPLAM TOTAL | 1,171 | 1,398 | 1,605 | |
| | Motorin Diesel Oil | Asıl Yakıt Main Fuel | 0 | 0 | 0 | |
| | Yrd. Yakıt Auxiliary Fuel | 195 | 144 | 622 | | |
| | TOPLAM TOTAL | 195 | 144 | 622 | | |
| | TOPLAM | TOTAL | 1,366 | 1,542 | 2,227 | |
| | Doğal Gaz | Natural Gas | 37,354 | 34,621 | 36,773 | |
| | TOPLAM | TOTAL | 124,676 | 133,026 | 121,431 | |
| MOBİL SANTRALLAR MOBİL POWER PLANTS | Fuel-Oil | Fuel Oil | 0 | 0 | 0 | |
| | Motorin | Diesel Oil | | | | |
| | TOPLAM | TOTAL | 0 | 0 | 0 | |
| OTOPRODÜKTÖRLER ÜRETİM ŞİRKETLERİ İŞLETME HAKKI DEVİR ADÜAŞ AUTOPRODUCERS PRODUCTION COMP. TOOR ADÜAŞ | Taşkömür+İthal kömür | Hard Coal+Imported Coal | 34,556 | 52,056 | 67,208 | |
| | Linyit | Lignite | 15,584 | 15,857 | 15,218 | |
| | TOPLAM | Total | 50,141 | 67,914 | 82,426 | |
| | Fuel-Oil | Fuel Oil | 7,398 | 3,882 | 4,019 | |
| | Motorin | Diesel Oil | 15 | 11 | 1,262 | |
| | Lpg | Lpg | 0 | 0 | 0 | |
| | Nafta | Naphta | 105 | 0 | 0 | |
| | TOPLAM | TOTAL | 7,518 | 3,893 | 5,281 | |
| | Doğal Gaz | Natural Gas | 157,134 | 167,443 | 166,993 | |
| | TOPLAM | TOTAL | 207,275 | 235,357 | 249,419 | |
| TÜRKİYE TURKEY | Taşkömür+İthal kömür | Hard Coal+Imported Coal | 39,546 | 57,567 | 71,270 | |
| | Linyit | Lignite | 96,551 | 107,210 | 93,587 | |
| | TOPLAM | Total | 136,097 | 164,777 | 164,857 | |
| | Fuel-Oil | Fuel Oil | 8,569 | 5,280 | 5,625 | |
| | Motorin | Diesel Oil | 209 | 155 | 1,884 | |
| | Lpg | Lpg | 0 | 0 | 0 | |
| | Nafta | Naphta | 105 | 0 | 0 | |
| | TOPLAM | TOTAL | 8,884 | 5,435 | 7,508 | |
| | | Doğal Gaz | Natural Gas | 194,487 | 202,064 | 203,766 |
| | | TOPLAM | TOTAL | 339,468 | 372,276 | 376,132 |

Not 1 :Ayrıca Ağaç kabuğu,talaş,sıvı kükürt,siyah likör,katran,kok gazı,YF gazı,rafineri gazı v.b otoprodüktör santrallerde kullanılan yakıtların ısı değerleri tabloda yer almamaktadır.

Note 1: Heating values of wood wastes,liquid sulphur,black liquor,bitumen,coke oven gas,blast furnace gas,refinery gas used by autoproducers are not included in the table.

Table 4:

| TÜRKİYE TERMİK SANTRALLARINDA TÜKETİLEN YAKITLARIN KURULUŞLARA GÖRE ISI DEĞERLERİ (BİRLEŞİK ISI-ELEKTRİK SANTRALLARINDA ISI ÜRETİMİ İÇİN KULLANILAN YAKITLAR DAHİL) HEATING VALUES OF FUELS CONSUMED IN THERMAL POWER PLANTS IN TURKEY BY THE ELECTRIC UTILITIES (FUELS USED FOR HEAT PRODUCTION IN CHP PLANTS INCLUDED) | | | | | | |
|---|----------------------|-------------------------|---|----------------------|------------------------|------------------------|
| 1cal = 4,1868 Joule | | | | | | |
| Birim(Unit): Gjoule | | | | | | |
| | | | 2010 | 2011 | 2012 | |
| | | | | | | |
| EÜAŞ VE BAĞLI ORTAKLIKLARI | Taşkömürü | Hard Coal | 20,892,383 | 23,074,208 | 17,008,733 | |
| | Linyit | Lignite | 338,990,622 | 382,472,805 | 328,113,617 | |
| | TOPLAM | Total | 359,883,005 | 405,547,013 | 345,122,349 | |
| | Fuel-Oil | Fuel Oil | Asıl Yakıt Main Fuel Yrd. Yakıt Auxillary Fuel | 679,656 4,223,229 | 1,091,289 4,760,433 | 1,125,052 5,596,475 |
| | TOPLAM | TOTAL | 4,902,885 | 5,851,723 | 6,721,526 | |
| EÜAŞ AND AFFILIATED PARTNERSHIPS OF EÜAŞ | Motorin | Diesel Oil | Asıl Yakıt Main Fuel Yrd. Yakıt Auxillary Fuel | 159 815,082 | 0 603,737 | 0 2,602,536 |
| | TOPLAM | TOTAL | 815,241 | 603,737 | 2,602,536 | |
| | TOPLAM | TOTAL | 5,718,126 | 6,455,459 | 9,324,062 | |
| | Doğal Gaz | Natural Gas | 156,392,061 | 144,950,365 | 153,961,954 | |
| | TOPLAM | TOTAL | 521,993,192 | 556,952,838 | 508,408,366 | |
| MOBİL SANTRALLAR MOBIL POWER PLANTS | Fuel-Oil | Fuel Oil | 0 | 0 | 0 | |
| | Motorin | Diesel Oil | 0 | 0 | 0 | |
| | TOPLAM | TOTAL | 0 | 0 | 0 | |
| OTOPRODÜKTÖRLER ÜRETİM ŞİRKETLERİ İŞLETME HAKKI DEVİR ADÜAŞ AUTOPRODUCERS PRODUCTION COMP. TOOR ADÜAŞ | Taşkömür+İthal kömür | Hard Coal+Imported Coal | 144,680,890 | 217,948,438 | 281,385,144 | |
| | Linyit | Lignite | 65,249,084 | 66,392,055 | 63,714,919 | |
| | TOPLAM | Total | 209,929,975 | 284,340,493 | 345,100,063 | |
| | Fuel-Oil | Fuel Oil | 30,974,336 | 16,254,037 | 16,828,236 | |
| | Motorin | Diesel Oil | 61,818 | 45,552 | 5,283,909 | |
| | Lpg | Lpg | 0 | 0 | 0 | |
| | Nafta | Naphta | 440,154 | 0 | 0 | |
| | TOPLAM | TOTAL | 31,476,308 | 16,299,589 | 22,112,145 | |
| | Doğal Gaz | Natural Gas | 657,887,178 | 701,051,608 | 699,167,092 | |
| TOPLAM | TOTAL | 867,817,153 | 985,392,101 | 1,044,267,155 | | |
| TÜRKİYE TURKEY | Taşkömür+İthal kömür | Hard Coal+Imported Coal | 165,573,274 | 241,022,646 | 298,393,877 | |
| | Linyit | Lignite | 404,239,706 | 448,864,860 | 391,828,536 | |
| | TOPLAM | Total | 569,812,980 | 689,887,506 | 690,222,413 | |
| | Fuel-Oil | Fuel Oil | 35,877,221 | 22,105,760 | 23,549,762 | |
| | Motorin | Diesel Oil | 877,059 | 649,289 | 7,886,445 | |
| | Lpg | Lpg | 0 | 0 | 0 | |
| | Nafta | Naphta | 440,154 | 0 | 0 | |
| | TOPLAM | TOTAL | 37,194,434 | 22,755,049 | 31,436,207 | |
| | Doğal Gaz | Natural Gas | 814,279,239 | 846,001,974 | 853,129,046 | |
| | TOPLAM | TOTAL | 1,421,286,653 | 1,558,644,529 | 1,574,787,666 | |

Table 5:

NET CALORIFIC VALUES OF FUELS CONSUMED IN THE THERMAL POWER PLANTS

| | | Unit: TJ/KT | | | | |
|---|----------------------|----------------------------------|--------------------|--------------|--------------|-------|
| | | 2010 | 2011 | 2012 | | |
| EÜAŞ VE BAĞLI ORTAKLIKLARI <i>EÜAŞ AND AFFILIATED PARTNERSHIPS OF EÜAŞ</i> | Taşkömürü | <i>Hard Coal</i> | 13.36 | 13.57 | 13.56 | |
| | Linyit | <i>Lignite</i> | 6.76 | 7.01 | 6.72 | |
| | TOPLAM | TOTAL | 6.96 | 7.21 | 6.89 | |
| | Fuel-Oil | <i>Fuel Oil</i> | 40.30 | 40.27 | 40.00 | |
| | | <i>Asıl Yakıt Main Fuel</i> | 40.19 | 40.19 | 40.19 | |
| | | <i>Yrd. Yakıt Auxiliary Fuel</i> | | | | |
| | TOPLAM | TOTAL | 40.21 | 40.21 | 40.16 | |
| | Motorin | <i>Diesel Oil</i> | 1.00 | 0.00 | 0.00 | |
| | | <i>Asıl Yakıt Main Fuel</i> | 43.12 | 43.17 | 43.11 | |
| | | <i>Yrd. Yakıt Auxiliary Fuel</i> | | | | |
| TOPLAM | TOTAL | 43.12 | 43.17 | 43.11 | | |
| TOPLAM | TOTAL | 40.60 | 40.47 | 40.94 | | |
| | Doğal Gaz | <i>Natural Gas</i> | 34.81 | 34.73 | 34.77 | |
| MOBİL SANTRALLAR <i>MOBILE POWER PLANTS</i> | Fuel-Oil | <i>Fuel Oil</i> | 0.00 | 0.00 | 0.00 | |
| | Motorin | <i>Diesel Oil</i> | 0.00 | 0.00 | 0.00 | |
| | TOPLAM | TOTAL | 0.00 | 0.00 | 0.00 | |
| | | | | | | |
| OTOPRODÜKTÖRLER ÜRETİM ŞİRKETLERİ İŞLETME HAKKI DEVİR ADÜAŞ* <i>AUTOPRODUCERS PRODUCTION COMP. TOOR ADÜAŞ</i> | Taşkömür+ithal kömür | <i>Hard Coal+Imported Coal</i> | 24.71 | 24.56 | 25.57 | |
| | Linyit | <i>Lignite</i> | 9.94 | 9.55 | 9.26 | |
| | TOPLAM | TOTAL | 16.90 | 17.97 | 19.29 | |
| | Fuel-Oil | <i>Fuel Oil</i> | 40.23 | 42.10 | 42.34 | |
| | Motorin | <i>Diesel Oil</i> | 42.66 | 42.85 | 45.55 | |
| | LPG | <i>LPG</i> | 1.00 | 0.00 | 0.00 | |
| | Nafta | <i>Naphta</i> | 33.50 | 0.00 | 0.00 | |
| | TOPLAM | TOTAL | 40.13 | 42.10 | 43.07 | |
| | | Doğal Gaz | <i>Natural Gas</i> | 38.05 | 37.63 | 37.46 |
| | | | | | | |
| TÜRKİYE <i>TURKEY</i> | Taşkömür+ithal kömür | <i>Hard Coal+Imported Coal</i> | 22.32 | 22.79 | 24.34 | |
| | Linyit | <i>Lignite</i> | 7.13 | 7.30 | 7.03 | |
| | TOPLAM | TOTAL | 8.89 | 9.57 | 10.15 | |
| | Fuel-Oil | <i>Fuel Oil</i> | 40.23 | 41.58 | 41.70 | |
| | Motorin | <i>Diesel Oil</i> | 43.09 | 43.15 | 44.71 | |
| | LPG | <i>LPG</i> | 0.00 | 0.00 | 0.00 | |
| | Nafta | <i>Naphta</i> | 33.50 | 0.00 | 0.00 | |
| | TOPLAM | TOTAL | 40.20 | 41.63 | 42.41 | |
| | | Doğal Gaz | <i>Natural Gas</i> | 37.38 | 37.10 | 36.95 |
| | | | | | | |

Table 6: Source: [http://www.tejas.gov.tr/TürkiyeElektrikIstatistikleri/istatistik2012/uretim%20tuketim\(23-47\)/42\(06-12\).xls](http://www.tejas.gov.tr/TürkiyeElektrikIstatistikleri/istatistik2012/uretim%20tuketim(23-47)/42(06-12).xls)

| TÜRKİYE BRÜT ELEKTRİK ENERJİ ÜRETİMİNİN ÜRETİCİ KURULUŞLAR VE BİRİNCİL ENERJİ KAYNAKLARINA DAĞILIMI TURKEY'S GROSS ELECTRICITY GENERATION BY PRIMARY ENERGY RESOURCES AND THE ELECTRIC UTILITIES | | | | | | |
|---|-----------------------------------|-----------------------------|------------------|------------------|------------------|------------------|
| Birim(Unit) : GWh | | | | | | |
| ÜRETİM KARAKTERİSTİĞİ Generation Characteristics | | | 2009 | 2010 | 2011 | 2012 |
| E | TAŞKÖMÜRÜ | Hard Coal | 1,851.1 | 1,882.7 | 2,004.2 | 1,479.1 |
| | LİNYİT | Lignite | 22,395.3 | 20,646.7 | 20,588.7 | 16,173.1 |
| | KÖMÜR TOPLAMI | Coal Total | 24,246.4 | 22,529.4 | 22,592.9 | 17,652.2 |
| Ü | FUEL-OİL | Fuel Oil | 974.4 | 62.2 | 103.0 | 105.2 |
| | MOTORİN | Diesel oil | 0.2 | 0.0 | 0.0 | 0.0 |
| A | SIVI TOPLAMI | Liquid Total | 974.6 | 62.2 | 103.0 | 105.2 |
| Ş | DOĞAL GAZ | Natural Gas | 17,225.5 | 15,289.4 | 13,939.9 | 14,355.0 |
| | TERMİK TOPLAM | Thermal Total | 42,446.5 | 37,881.0 | 36,635.9 | 32,112.4 |
| | HİDROLİK +JEOTERMAL+RÜZGAR TOPLAM | Hydro+Geothermal+Wind Total | 28,338.2 | 41,377.4 | 36,888.2 | 38,311.1 |
| | TOPLAM | Total | 70,784.8 | 79,258.3 | 73,524.1 | 70,423.5 |
| BAĞLI ORTAKLIKLAR Affiliated partnerships Of EÜAŞ | LİNYİT | Lignite | 11,974.5 | 10,524.2 | 13,407.6 | 13,767.6 |
| | DOĞAL GAZ | Natural Gas | 6,694.4 | 5,749.9 | 5,419.0 | 6,383.9 |
| | TERMİK TOPLAM | Thermal Total | 18,668.9 | 16,274.1 | 18,826.5 | 20,151.5 |
| MOBİL SANTRALLAR MOBILE P.P. | FUEL-OİL | Fuel Oil | 0.0 | 0.0 | 0.0 | 0.0 |
| | MOTORİN | Diesel oil | 0.0 | 0.0 | 0.0 | 0.0 |
| | TERMİK TOPLAM | Thermal Total | 0.0 | 0.0 | 0.0 | 0.0 |
| OTOPRODÜKTÖRLER ÜRETİM ŞRK. İŞLETME HAKKI DEV. Autoproducers Production Comp. TOOR | TAŞKÖMÜRÜ+İTHAL KÖMÜR | Hard Coal+Imported Coal | 14,744.5 | 17,221.6 | 25,343.3 | 31,845.1 |
| | LİNYİT | Lignite | 4,719.6 | 4,771.2 | 4,874.1 | 4,748.1 |
| | KÖMÜR TOPLAMI | Coal Total | 19,464.1 | 21,992.8 | 30,217.4 | 36,593.3 |
| | FUEL-OİL | Fuel Oil | 3,465.4 | 2,081.6 | 797.5 | 876.1 |
| | MOTORİN | Diesel oil | 345.6 | 4.3 | 3.1 | 657.4 |
| | LPG | LPG | 0.4 | 0.0 | 0.0 | 0.0 |
| | NAFTA | Naphtha | 17.6 | 31.9 | 0.0 | 0.0 |
| | SIVI TOPLAMI | Liquid Total | 3,829.0 | 2,117.8 | 800.6 | 1,533.5 |
| | DOĞAL GAZ | Natural Gas | 72,174.8 | 77,104.5 | 84,688.7 | 83,760.3 |
| | YENİLENEBİLİR+ATIK | Renewables and wastes | 340.1 | 457.0 | 340.1 | 720.7 |
| | TERMİK TOPLAM | Thermal Total | 95,808.0 | 101,672.5 | 116,046.8 | 122,607.8 |
| | HİDROLİK +JEOTERMAL+RÜZGAR TOPLAM | Hydro+Geothermal+Wind Total | 9,551.2 | 14,002.8 | 20,868.6 | 26,314.0 |
| | TOPLAM | Total | 105,359.2 | 115,675.3 | 136,915.4 | 148,921.8 |
| TÜRKİYE TURKEY | TAŞKÖMÜRÜ+İTHAL KÖMÜR | Hard Coal+Imported Coal | 16,595.6 | 19,104.3 | 27,347.5 | 33,324.2 |
| | LİNYİT | Lignite | 39,089.5 | 35,942.1 | 38,870.4 | 34,688.9 |
| | KÖMÜR TOPLAMI | Coal Total | 55,685.1 | 55,046.4 | 66,217.9 | 68,013.1 |
| | FUEL-OİL | Fuel Oil | 4,439.8 | 2,143.8 | 900.5 | 981.3 |
| | MOTORİN | Diesel oil | 345.8 | 4.3 | 3.1 | 657.4 |
| | LPG | LPG | 0.4 | 0.0 | 0.0 | 0.0 |
| | NAFTA | Naphtha | 17.6 | 31.9 | 0.0 | 0.0 |
| | SIVI TOPLAMI | Liquid Total | 4,803.5 | 2,180.0 | 903.6 | 1,638.7 |
| | DOĞAL GAZ | Natural Gas | 96,094.7 | 98,143.7 | 104,047.6 | 104,499.2 |
| | YENİLENEBİLİR+ATIK | Renewables and wastes | 340.1 | 457.5 | 469.2 | 720.7 |
| | TERMİK TOPLAM | Thermal Total | 156,923.4 | 155,827.6 | 171,638.3 | 174,871.7 |
| | HİDROLİK +JEOTERMAL+RÜZGAR TOPLAM | Hydro+Geothermal+Wind Total | 37,889.5 | 55,380.1 | 57,756.8 | 64,625.1 |
| | TÜRKİYE TOPLAMI | TURKEY'S TOTAL | 194,812.9 | 211,207.7 | 229,395.1 | 239,496.8 |

Table 7: ([http://www.teias.gov.tr/TürkiyeElektrikİstatistikleri/istatistik2012/uretim%20tuketim\(23-47\)/34\(84-12\).xls](http://www.teias.gov.tr/TürkiyeElektrikİstatistikleri/istatistik2012/uretim%20tuketim(23-47)/34(84-12).xls))

| TÜRKİYE ELEKTRİK ENERJİ ÜRETİM - TÜKETİM VE KAYIPLARININ YILLAR İTİBARIYLA GELİŞİMİ ANNUAL DEVELOPMENT OF ELECTRICITY GENERATION- CONSUMPTION AND LOSSES IN TURKEY (1984-2011) | | | | | | | | | | | | | | | | |
|---|-------------|----------|-------------------|------|------------|----------|--|--------------|------|--------------|-------|-----------|-------|------------------------|-------------|----------|
| http://www.teias.gov.tr/TürkiyeElektrikİstatistikleri/istatistik2012/uretim%20tuketim(23-47)/34(84-12).xls (File No: 34) | | | | | | | | | | | | | | | | |
| ŞEBEKE KAYBI NETWORK LOSS | | | | | | | | | | | | | | | | |
| YILLAR | BRÜT ÜRETİM | ARTIŞ % | İÇ İHTİYAÇ | % | NET ÜRETİM | İTHALAT | ŞEBEKEYE VERİLEN ⁽¹⁾ | İLETİM | % | DAĞITIM | % | TOPLAM | % | İHRACAT ⁽²⁾ | NET TÜKETİM | ARTIŞ % |
| YEARS | GROSS GEN. | INCREASE | INTERNAL CONSUMP. | | NET GEN. | IMPORTS | SUPPLIED TO THE NETWORK ⁽¹⁾ | TRANSMISSION | | DISTRIBUTION | | TOTAL | | EXPORTS ⁽²⁾ | NET CONS. | INCREASE |
| 1984 | 30,613.50 | 11.90 | 1,890.70 | 6.20 | 28,722.80 | 2,653.00 | 31,375.80 | 1,577.40 | 5.00 | 2,163.20 | 6.90 | 3,740.60 | 11.90 | | 27,635.20 | 13.00 |
| 1985 | 34,218.90 | 11.80 | 2,306.80 | 6.70 | 31,912.10 | 2,142.40 | 34,054.50 | 1,611.40 | 4.70 | 2,734.50 | 8.00 | 4,345.90 | 12.80 | | 29,708.60 | 7.50 |
| 1986 | 39,694.80 | 16.00 | 2,815.00 | 7.10 | 36,879.80 | 776.60 | 37,656.40 | 1,344.30 | 3.60 | 4,102.40 | 10.90 | 5,446.70 | 14.50 | | 32,209.70 | 8.40 |
| 1987 | 44,352.90 | 11.70 | 2,607.70 | 5.90 | 41,745.20 | 572.10 | 42,317.30 | 1,627.40 | 3.80 | 3,992.60 | 9.40 | 5,620.00 | 13.30 | | 36,697.30 | 13.90 |
| 1988 | 48,048.80 | 8.30 | 2,400.00 | 5.00 | 45,648.80 | 381.20 | 46,030.00 | 2,016.60 | 4.40 | 4,291.90 | 9.30 | 6,308.50 | 13.70 | | 39,721.50 | 8.20 |
| 1989 | 52,043.20 | 8.30 | 3,234.50 | 6.20 | 48,808.70 | 558.50 | 49,367.20 | 1,544.00 | 3.10 | 4,703.20 | 9.50 | 6,247.20 | 12.70 | | 43,120.00 | 8.60 |
| 1990 | 57,543.00 | 10.60 | 3,311.40 | 5.80 | 54,231.60 | 175.50 | 54,407.10 | 1,787.20 | 3.30 | 4,893.10 | 9.00 | 6,680.30 | 12.30 | 906.80 | 46,820.00 | 8.60 |
| 1991 | 60,246.30 | 4.70 | 3,655.20 | 6.10 | 56,591.10 | 759.40 | 57,350.50 | 1,437.80 | 2.50 | 6,123.40 | 10.70 | 7,561.20 | 13.20 | 506.40 | 49,282.90 | 5.30 |
| 1992 | 67,342.20 | 11.80 | 4,237.30 | 6.30 | 63,104.90 | 188.80 | 63,293.70 | 1,342.90 | 2.10 | 7,651.90 | 12.10 | 8,994.80 | 14.20 | 314.20 | 53,984.70 | 9.50 |
| 1993 | 73,807.50 | 9.60 | 3,943.10 | 5.30 | 69,864.40 | 212.90 | 70,077.30 | 1,634.90 | 2.30 | 8,616.70 | 12.30 | 10,251.60 | 14.60 | 588.70 | 59,237.00 | 9.70 |
| 1994 | 78,321.70 | 6.10 | 4,539.10 | 5.80 | 73,782.60 | 31.40 | 73,814.00 | 1,800.30 | 2.40 | 10,042.70 | 13.60 | 11,843.00 | 16.00 | 570.10 | 61,400.90 | 3.70 |
| 1995 | 86,247.40 | 10.10 | 4,388.80 | 5.10 | 81,858.60 | 0.00 | 81,858.60 | 2,034.90 | 2.50 | 11,733.90 | 14.30 | 13,768.80 | 16.80 | 695.90 | 67,393.90 | 9.80 |
| 1996 | 94,861.70 | 10.00 | 4,777.30 | 5.00 | 90,084.40 | 270.10 | 90,354.50 | 2,461.70 | 2.70 | 13,393.10 | 14.80 | 15,854.80 | 17.50 | 343.10 | 74,156.60 | 10.00 |
| 1997 | 103,295.80 | 8.90 | 5,050.20 | 4.90 | 98,245.60 | 2,492.30 | 100,737.90 | 2,935.50 | 2.90 | 15,646.40 | 15.50 | 18,581.90 | 18.40 | 271.00 | 81,885.00 | 10.40 |
| 1998 | 111,022.40 | 7.50 | 5,523.20 | 5.00 | 105,499.20 | 3,298.50 | 108,797.70 | 3,337.10 | 3.10 | 17,457.80 | 16.00 | 20,794.90 | 19.10 | 298.20 | 87,704.60 | 7.10 |
| 1999 | 116,439.90 | 4.90 | 5,738.00 | 4.90 | 110,701.90 | 2,330.30 | 113,032.20 | 2,985.10 | 2.60 | 18,559.90 | 16.40 | 21,545.00 | 19.10 | 285.30 | 91,201.90 | 4.00 |
| 2000 | 124,921.60 | 7.30 | 6,224.00 | 5.00 | 118,697.60 | 3,791.30 | 122,488.90 | 3,181.80 | 2.60 | 20,574.10 | 16.80 | 23,755.90 | 19.40 | 437.30 | 98,295.70 | 7.80 |
| 2001 | 122,724.70 | -1.80 | 6,472.60 | 5.30 | 116,252.10 | 4,579.40 | 120,831.50 | 3,374.40 | 2.80 | 19,954.30 | 16.50 | 23,328.70 | 19.30 | 432.80 | 97,070.00 | -1.20 |
| 2002 | 129,399.50 | 5.40 | 5,672.70 | 4.40 | 123,726.80 | 3,588.20 | 127,315.00 | 3,440.70 | 2.70 | 20,491.20 | 16.10 | 23,931.90 | 18.80 | 435.10 | 102,948.00 | 6.10 |
| 2003 | 140,580.50 | 8.60 | 5,332.20 | 3.80 | 135,248.30 | 1,158.00 | 136,406.30 | 3,330.70 | 2.40 | 20,722.00 | 15.20 | 24,052.70 | 17.60 | 587.60 | 111,766.00 | 8.60 |
| 2004 | 150,698.30 | 7.20 | 5,632.60 | 3.70 | 145,065.70 | 463.50 | 145,529.20 | 3,422.80 | 2.40 | 19,820.20 | 13.60 | 23,243.00 | 16.00 | 1,144.30 | 121,141.90 | 8.40 |
| 2005 | 161,956.20 | 7.50 | 6,487.10 | 4.00 | 155,469.10 | 635.90 | 156,105.00 | 3,695.30 | 2.40 | 20,348.70 | 13.00 | 24,044.00 | 15.40 | 1,798.10 | 130,262.90 | 7.50 |
| 2006 | 176,299.80 | 8.90 | 6,756.70 | 3.80 | 169,543.10 | 573.20 | 170,116.30 | 4,543.80 | 2.70 | 19,245.40 | 11.30 | 23,789.20 | 14.00 | 2,235.70 | 144,091.40 | 10.60 |
| 2007 | 191,558.10 | 8.70 | 8,218.40 | 4.30 | 183,339.70 | 864.30 | 184,204.00 | 4,523.00 | 2.50 | 22,123.60 | 12.00 | 26,646.60 | 14.50 | 2,422.20 | 155,135.20 | 7.70 |
| 2008 | 198,418.00 | 3.60 | 8,656.10 | 4.40 | 189,761.90 | 789.40 | 190,551.30 | 4,388.40 | 2.30 | 23,093.10 | 12.10 | 27,481.50 | 14.40 | 1,122.20 | 161,947.60 | 4.40 |
| 2009 | 194,812.90 | -1.80 | 8,193.60 | 4.20 | 186,619.30 | 812.00 | 187,431.30 | 3,973.40 | 2.10 | 25,018.00 | 13.30 | 28,991.40 | 15.50 | 1,545.80 | 156,894.10 | -3.10 |
| 2010 | 211,207.70 | 8.40 | 8,161.60 | 3.90 | 203,046.10 | 1,143.80 | 204,189.90 | 5,690.50 | 2.80 | 24,531.20 | 12.00 | 30,221.70 | 14.80 | 1,917.60 | 172,050.60 | 9.70 |
| 2011 | 229,395.10 | 8.60 | 11,837.40 | 5.20 | 217,557.70 | 4,555.80 | 222,113.50 | 4,189.30 | 1.90 | 28,180.00 | 12.70 | 32,369.30 | 14.60 | 3,644.60 | 186,099.60 | 8.20 |
| 2012 | 239,496.80 | 4.40 | 11,789.50 | 4.92 | 227,707.30 | 5,826.70 | 233,534.00 | 6,024.70 | 2.58 | 29,632.30 | 12.69 | 35,657.00 | 15.27 | 2,953.60 | 194,923.40 | 4.74 |

1)Şebekeye Verilen = Net Üretim+İthalat

2) İhracat, Sınırda teslim esasına göre yapıldığından, ihracat ile ilgili şebeke kaybı, iletim kaybının içinde yer :

* Kaynak : Türkiye Elektrik Dağıtım ve Tüketim İstatistikleri ,1994-2010 (2011 Geçici)

1)Supplied to the Network = Net Generation+Import

2)As the export is made on delivery at border basis, its losses are included in the section j

* Source : Electricity Distribution and Consumption Statistics of Turkey ,1994-2010

Table 8a:Source: <http://www.teias.gov.tr/projeksiyon/KAPASITE%20PROJEKSİYONU%202010.pdf>

| Unit Name | Project | | Firm Production (GWh) | Type | Fuel | Date of Commissioning |
|--|---------------|----------------------------|-----------------------|--------------|-------------|-----------------------|
| | Capacity (MW) | Production Potential (GWh) | | | | |
| Enerji-Sa (Bandirma) | 1,000.00 | 7,540.00 | 7,540.00 | Private | Natural Gas | 7-Oct-10 |
| Uğur Enerji Ür. Tic.Ve San. A.Ş. (İlave) | 12.00 | 100.86 | 100.86 | Private | Natural Gas | 7-Oct-10 |
| Ziyaret Res (Ziyaret Res Elek.)(İlave) | 22.50 | 0.00 | 0.00 | Private | Wind | 13-Oct-10 |
| Kahta I Hes (Erdemyıldız Elek. Ürt.) | 7.12 | 0.00 | 0.00 | Private | Hydro | 14-Oct-10 |
| Rotor Elektrik (Gökçedağ Res) (İlave) | 2.50 | 0.00 | 0.00 | Private | Wind | 15-Oct-10 |
| Azmak-li Reg. Ve Hes (Düzelme) | -18.07 | 0.00 | 0.00 | Private | Hydro | 25-Oct-10 |
| Itc Adana Biokütle Sant. (Düzelme) | 0.00 | 0.00 | 0.00 | Private | LFG | 25-Oct-10 |
| Enerji-Sa (Bandirma) (Düzelme) | -69.20 | 0.00 | 0.00 | Private | Natural Gas | 25-Oct-10 |
| Uluabat Kuvvet Tüneli Ve Hes | 48.51 | 0.00 | 0.00 | Private | Hydro | 27-Oct-10 |
| Sabunsuyu li Hes (Ang Enerji Elk.) | 7.35 | 21.00 | 12.00 | Private | Hydro | 28-Oct-10 |
| Eren Enerji Elektrik Ür. A.Ş. (İlave) | 600.00 | 4,005.88 | 4,005.88 | Private | Coal | 1-Nov-10 |
| Burç Bendi Ve Hes (Akkur Enerji) | 27.33 | 0.00 | 0.00 | Private | Hydro | 4-Nov-10 |
| Karadeniz El. (Uzundere-1 Hes)(İlave) | 31.08 | 82.44 | 46.46 | Private | Hydro | 7-Nov-10 |
| Güzelçay-li Hes (İlk Elektrik Enerji) | 4.96 | 26.33 | 14.70 | Private | Hydro | 11-Nov-10 |
| Murgul Bakir (Ç.Kaya) (İlave) | 19.60 | 40.50 | 31.59 | Private | Hydro | 11-Nov-10 |
| Kuyucak Res (Alize Enerji Üret.) | 8.00 | 0.00 | 0.00 | Private | Wind | 11-Nov-10 |
| Soma Res (Bilgin Wind San.)(İlave) | 30.00 | 0.00 | 0.00 | Private | Wind | 11-Nov-10 |
| Uluabat Kuvvet Tüneli Ve Hes (İlave) | 48.51 | 0.00 | 0.00 | Private | Hydro | 25-Nov-10 |
| Marmara Pamuklu Mensucat (İlave) | 26.19 | 203.45 | 203.45 | Autoproducer | Natural Gas | 25-Nov-10 |
| Fritolay Gıda San.Ve Tic A.Ş. (İlave) | 0.33 | 3.00 | 3.00 | Autoproducer | Biogas | 26-Nov-10 |
| Egemen 1 Hes (Enersis Elektrik) | 8.82 | 0.00 | 0.00 | Private | Hydro | 26-Nov-10 |
| Reşadiye 1 Hes (Turkon Mng Elekt.) | 15.68 | 0.00 | 0.00 | Private | Hydro | 26-Nov-10 |
| Aliağa Çakmaktepe Enerji (İlave) | 69.84 | 557.92 | 557.92 | Private | Natural Gas | 26-Nov-10 |
| Yedigöze Hes (Yedigöze Elektrik) | 155.33 | 474.00 | 268.00 | Private | Hydro | 2-Dec-10 |
| Sönmez Enerji Üretim (Uşak) (İlave) | 2.56 | 19.77 | 19.77 | Private | Natural Gas | 7-Dec-10 |
| AK-ENERJİ (UŞAK OSB)(Uşak-Ak.En.) | -15.24 | 0.00 | 0.00 | Private | Natural Gas | 9-Dec-10 |
| Ak-Enerji(Dg+N) (Deba-Denizli) | -15.60 | 0.00 | 0.00 | Private | Natural Gas | 9-Dec-10 |
| Kuyucak Res (Alize Enerji Ür.) (İlave) | 17.60 | 0.00 | 0.00 | Private | Wind | 9-Dec-10 |
| Umut lii Reg. Ve Hes (Nisan Elektr.) | 12.00 | 26.00 | 15.00 | Private | Hydro | 13-Dec-10 |

| Unit Name | Capacity (MW) | Project Production Potential (GWh) | Firm Production (GWh) | Type | Fuel | Date of Commissioning |
|---------------------------------------|---------------|------------------------------------|-----------------------|--------------|-------------|-----------------------|
| Tüpraş Rafineri (İzmit) (İlave) | 40.00 | 258.82 | 258.82 | Autoproducer | Natural Gas | 15-Dec-10 |
| Polyplex Europa Polyester Film | 7.81 | 61.00 | 61.00 | Autoproducer | Natural Gas | 16-Dec-10 |
| Altek Alarko Elektrik Santralleri | 21.89 | 151.36 | 151.36 | Private | Natural Gas | 18-Dec-10 |
| Aksa Enerji (Demirtaş/Bursa) | -1.40 | 0.00 | 0.00 | Private | Waste | 21-Dec-10 |
| Sares Res (Garet Enerji Üretim) | 15.00 | 0.00 | 0.00 | Private | Wind | 22-Dec-10 |
| Feke 2 Barajı Ve Hes (Akkur Enerji) | 69.34 | 0.00 | 0.00 | Private | Hydro | 24-Dec-10 |
| Egemen 1b Hes (Enersis Elektrik) | 11.10 | 0.00 | 0.00 | Private | Hydro | 28-Dec-10 |
| Eren Enerji Elektrik Ür. A.Ş. (İlave) | 600.00 | 4,005.88 | 4,005.88 | Private | Coal | 29-Dec-10 |
| Rasa Enerji (Van) (İlave) | 10.12 | 64.41 | 64.41 | Private | Natural Gas | 29-Dec-10 |
| Kalkandere Reg. Ve Yokuşlu Hes | 14.54 | 0.00 | 0.00 | Private | Hydro | 30-Dec-10 |
| Turgutpepe Res (Sabaş Elektrik Ür.) | 22.00 | 0.00 | 0.00 | Private | Wind | 30-Dec-10 |
| AK TEKSTİL-1 (G.Antep) | -13.04 | 0.00 | 0.00 | Autoproducer | FUEL-OİL | 31-Dec-10 |
| Silopi Elektrik Ür. A.Ş. (Esenboğa) | -44.78 | 0.00 | 0.00 | Private | FUEL-OİL | 31-Dec-10 |
| International Hospital İstanbul Aş. | 0.77 | 6.00 | 6.00 | Autoproducer | Natural Gas | 31-Dec-10 |
| Tüpraş Rafineri (İzmit) (Düzeltilme) | -39.14 | 0.00 | 0.00 | Autoproducer | Natural Gas | 31-Dec-10 |
| Yalova Elyaf | -12.30 | 0.00 | 0.00 | Autoproducer | Natural Gas | 31-Dec-10 |

Table 8b:

Source: <http://www.teias.gov.tr/KAPASITEPROJEKSİYONU2011.pdf>

| Unit Name | Capacity (Mw) | Project Production Potential (Gwh) | Firm Production (Gwh) | Type | Fuel | Date Of Commissioning |
|---|---------------|------------------------------------|-----------------------|--------------|---------------|-----------------------|
| Akim Enerji Başpınar (Süper Film) | 25.32 | 177.00 | 177.00 | Private | Natural Gas | Unknown |
| Aksa Akrilik (İthal Köm.+D.G) | 25.00 | 175.00 | 175.00 | Private | Natural Gas | Unknown |
| Aksa Enerji (Antalya) | 300.00 | 1,800.00 | 1,800.00 | Private | Natural Gas | Unknown |
| Aksa Enerji (Antalya) (İlave) | 300.00 | 1,800.00 | 1,800.00 | Private | Natural Gas | Unknown |
| Aldaş Altyapı Yönetim Danışmanlık | 1.95 | 15.00 | 15.00 | Autoproducer | Natural Gas | Unknown |
| Aliağa Çakmaktepe Enerji (İlave) | 130.95 | 986.25 | 986.25 | Private | Natural Gas | Unknown |
| Aliağa Çakmaktepe Enerji (İlave) | 8.73 | 67.76 | 67.76 | Private | Natural Gas | Unknown |
| Bekirli Tes (İçdaş Elektrik En.) | 600.00 | 4.32 | 4.32 | Private | Imported Coal | Unknown |
| Bosen Enerji Elektrik Üretim Aş. | 93.00 | 698.09 | 698.09 | Private | Natural Gas | Unknown |
| Boyteks Tekstil San. Ve Tic. A.Ş. | 8.60 | 67.00 | 67.00 | Private | Natural Gas | Unknown |
| Cengiz Çift Yakıtlı K.Ç.E.S. | 131.34 | 985.00 | 985.00 | Private | Natural Gas | Unknown |
| Cengiz Enerji San.Ve Tic.A.Ş. | 35.00 | 281.29 | 281.29 | Private | Natural Gas | Unknown |
| Eti Bor (Borik Asit)(Emet) (Düzeltilme) | 0.60 | 4.47 | 4.47 | Autoproducer | Natural Gas | Unknown |
| Fraport İç İcdaş Antalya Havalimanı | 8.00 | 64.00 | 64.00 | Autoproducer | Natural Gas | Unknown |
| Global Enerji (Pelitlik) | 4.00 | 29.91 | 29.91 | Private | Natural Gas | Unknown |

| Unit Name | Capacity (Mw) | Project Production Potential (Gwh) | Firm Production (Gwh) | Type | Fuel | Date Of Commissioning |
|--|---------------|------------------------------------|-----------------------|--------------------|-------------|-----------------------|
| Gordion Avm (Redevco Üç Emlak) | 2.01 | 15.00 | 15.00 | Autoproducer | Natural Gas | Unknown |
| Goren-1 (Gaziantep Organize San.) | 48.65 | 277.00 | 277.00 | Private | Natural Gas | Unknown |
| Gülle Enerji(Çorlu) (İlave) | 3.90 | 18.43 | 18.43 | Private | Natural Gas | Unknown |
| Hamitabat (Lisans Tadili) | 36.00 | 244.15 | 244.15 | Government | Natural Gas | Unknown |
| Hasirci Tekstil Tic. Ve San. Ltd. Şti. | 2.00 | 15.00 | 15.00 | Autoproducer | Natural Gas | Unknown |
| Hg Enerji Elektrik Üret. San.Tic. A.Ş. | 52.38 | 366.00 | 366.00 | Private | Natural Gas | Unknown |
| Isparta Mensucat (Isparta) | 4.30 | 33.00 | 33.00 | Autoproducer | Natural Gas | Unknown |
| İstanbul Sabiha Gökçen Ul.Ar. Hav. | 4.00 | 32.00 | 32.00 | Autoproducer | Natural Gas | Unknown |
| Karkey (Silopi 1) | 100.44 | 697.67 | 697.67 | Private | F.Oil | Unknown |
| Knauf İnş. Ve Yapı Elemanlari Sn. | 1.56 | 12.00 | 12.00 | Autoproducer | Natural Gas | Unknown |
| Lokman Hekim Engürü Sağ.(Sincan) | 0.51 | 44.00 | 44.00 | Autoproducer | Natural Gas | Unknown |
| Mardin-Kiziltepe (Aksa Enerji) | 32.10 | 225.00 | 225.00 | Private | F.Oil | Unknown |
| Mosb Enerji Elektrik Üretim Ltd. Şti.(İlave) | 43.50 | 351.86 | 351.86 | Private | Natural Gas | Unknown |
| Nuh Enerji El. Ürt.A.Ş. (Enerji Sant.-2) | 119.98 | 900.00 | 900.00 | Private | Natural Gas | Unknown |
| Odaş Doğalgaz Kçs (Odaş Elektrik) | 54.96 | 415.00 | 415.00 | Private | Natural Gas | Unknown |
| Polyplex Europa Polyester Film | 3.90 | 31.45 | 31.45 | Autoproducer | Natural Gas | Unknown |
| Samsun Tekkeköy En. San. (Aksa En.) | 131.34 | 980.00 | 980.00 | Private | Natural Gas | Unknown |
| Samur Hali A.Ş. | 4.30 | 33.00 | 33.00 | Autoproducer | Natural Gas | Unknown |
| Saray Hali A.Ş. | 4.29 | 33.00 | 33.00 | Autoproducer | Natural Gas | Unknown |
| Şanlıurfa Osb (Rasa Enerji Ür. A.Ş.) | 116.76 | 800.00 | 800.00 | Private | Natural Gas | Unknown |
| Aksu Reg. Ve Hes (Kalen Enerji) | 5.20 | 16.00 | 12.00 | Private | Hydro | Unknown |
| Değirmendere (Kadirli) (Ka-Fnih Elek.) | 0.50 | 1.20 | 0.80 | Op.Rights Transfer | Hydro | Unknown |
| Derme (Kayseri Ve Civari Enerji) | 4.50 | 14.00 | 7.00 | Op.Rights Transfer | Hydro | Unknown |
| Erkenek (Kayseri Ve Civari Enerji) | 0.32 | 1.23 | 0.74 | Op.Rights Transfer | Hydro | Unknown |
| Balkondu I Hes (Bta Elektrik Enerji) | 9.19 | 33.00 | 20.00 | Private | Hydro | Unknown |
| Batman | 0.48 | 1.16 | 1.08 | Private | Hydro | Unknown |
| Girlevik (Boydak Enerji) | 3.04 | 21.00 | 19.00 | Op.Rights Transfer | Hydro | Unknown |
| Berdan | 10.20 | 47.20 | 15.00 | Private | Hydro | Unknown |
| Boğuntu Hes (Beyobasi Enerji) | 3.80 | 17.00 | 10.00 | Private | Hydro | Unknown |
| Hakkari (Otluca) (Nas Enerji A.Ş.) | 1.28 | 6.00 | 5.00 | Op.Rights Transfer | Hydro | Unknown |
| Hasanlar | 9.35 | 39.90 | 29.60 | Government | Hydro | Unknown |
| Bünyan (Kayseri Ve Civari El. T.A.Ş) | 1.16 | 3.40 | 3.20 | Private | Hydro | Unknown |
| Çakirman Reg. Ve Hes (Yusaka En.) | 6.98 | 22.00 | 15.00 | Private | Hydro | Unknown |
| İnegöl(Cerrah) (Kent Solar Elektrik) | 0.27 | 1.00 | 0.80 | Op.Rights Transfer | Hydro | Unknown |
| İznic (Dereköy) (Kent Solar Elektrik) | 0.24 | 1.00 | 0.90 | Op.Rights Transfer | Hydro | Unknown |
| Çamardı (Kayseri Ve Civari El. T.A.Ş) | 0.07 | 0.01 | 0.01 | Private | Hydro | Unknown |
| Karaçay (Osmaniye) (Ka-Fnih Elektrik) | 0.40 | 2.30 | 2.00 | Op.Rights Transfer | Hydro | Unknown |
| Çamlıca Iii Hes (Çamlıca Elektrik) | 27.62 | 43.00 | 25.00 | Private | Hydro | Unknown |
| Çamlıkaya Reg.Ve Hes (Çamlıkaya En) | 2.82 | 6.71 | 3.88 | Private | Hydro | Unknown |
| Çanakçı Hes (Can Enerji Entegre) | 4.63 | 19.43 | 10.96 | Private | Hydro | Unknown |
| Çanakçı Hes (Can Enerji Entegre) | 4.63 | 19.43 | 10.96 | Private | Hydro | Unknown |
| Çeşmebaşı Reg. Ve Hes (Gimak En.) | 8.20 | 28.00 | 17.00 | Private | Hydro | Unknown |
| Kayadibi (Bartın) (İvme Elektromek.) | 0.46 | 2.30 | 2.00 | Op.Rights Transfer | Hydro | Unknown |

| Unit Name | Capacity (Mw) | Project Production Potential (Gwh) | Firm Production (Gwh) | Type | Fuel | Date Of Commissioning |
|--|---------------|------------------------------------|-----------------------|--------------------|-------------|-----------------------|
| Kerneç (Kayseri Ve Civari Enerji) | 0.83 | 0.80 | 0.60 | Op.Rights Transfer | Hydro | Unknown |
| Çukurçayı Hes (Aydemir Elektrik Ür.) | 1.80 | 8.00 | 4.00 | Private | Hydro | Unknown |
| Daren Hes Elektrik (Seyrantepe) | 49.70 | 181.13 | 140.88 | Private | Hydro | Unknown |
| Duru 2 Reg. Ve Hes (Durucasu Elek.) | 4.49 | 22.00 | 13.00 | Private | Hydro | Unknown |
| Kovada-I (Batiçim Enerji Elektrik) | 8.25 | 4.10 | 1.60 | Op.Rights Transfer | Hydro | Unknown |
| Kovada-II (Batiçim Enerji Elektrik) | 51.20 | 36.20 | 24.40 | Op.Rights Transfer | Hydro | Unknown |
| Erenköy Reg. Ve Hes (Nehir Enerji) | 21.46 | 87.00 | 49.00 | Private | Hydro | Unknown |
| Eşen-1 Hes (Göлтаş Enerji Elektrik) | 30.00 | 120.00 | 65.00 | Private | Hydro | Unknown |
| Eşen-1 Hes (Göлтаş Enerji Elektrik) | 30.00 | 120.00 | 65.00 | Private | Hydro | Unknown |
| Gökmen Reg. Ve Hes (Su-Gücü Elekt.) | 2.87 | 13.00 | 8.00 | Private | Hydro | Unknown |
| Kuzuculu (Dörtöl) (Ka-Fnih Elektrik) | 0.27 | 1.30 | 1.00 | Op.Rights Transfer | Hydro | Unknown |
| M.Kemalpaşa (Suuçtu) (Kent Solar) | 0.47 | 1.50 | 1.30 | Op.Rights Transfer | Hydro | Unknown |
| Malazgirt (Mostar Enerji Elektrik) | 1.22 | 4.00 | 3.00 | Op.Rights Transfer | Hydro | Unknown |
| Tekirdağ-Çorlu Teks.Tes.(Nil Örne) | 2.68 | 21.00 | 21.00 | Autoproducer | Natural Gas | Unknown |
| Tirenda Tire Enerji Üretim A.Ş. | 58.38 | 410.00 | 410.00 | Private | Natural Gas | Unknown |
| Toros Tarim (Mersin) (Nafta+D.Gaz) | 12.14 | 96.00 | 96.00 | Autoproducer | Naphta | Unknown |
| Tüpraş O.A. Rafineri (Kırıkkale) (İlave) | 12.00 | 84.78 | 84.78 | Autoproducer | Naphta | Unknown |
| Yeni Uşak Enerji Elektrik Santrali | 8.73 | 65.00 | 65.00 | Private | Natural Gas | Unknown |
| Zorlu Enerji (B.Karıştıran) | 7.20 | 54.07 | 54.07 | Private | Natural Gas | Unknown |
| Adilcevaz (Mostar Enerji Elektrik) | 0.39 | 0.80 | 0.50 | Op.Rights Transfer | Hydro | Unknown |
| Ahlat (Mostar Enerji Elektrik) | 0.20 | 0.60 | 0.50 | Op.Rights Transfer | Hydro | Unknown |
| Hacininoğlu Hes (Enerji-Sa Enerji) | 71.14 | 180.00 | 102.00 | Private | Hydro | Unknown |
| Hacininoğlu Hes (Enerji-Sa Enerji) | 71.14 | 180.00 | 102.00 | Private | Hydro | Unknown |
| Hasanlar Hes (Düzce Enerji Birliğı) | 4.68 | 21.00 | 12.00 | Private | Hydro | Unknown |
| İncirli Reg. Ve Hes (Laskar Enerji) | 25.20 | 126.00 | 71.00 | Private | Hydro | Unknown |
| Karasu 4-3 Hes (İdeal Enerji Üretimi) | 4.60 | 22.00 | 12.00 | Private | Hydro | Unknown |
| Karasu 5 Hes (İdeal Enerji Üretimi) | 4.10 | 24.00 | 14.00 | Private | Hydro | Unknown |
| Bayburt (Boydak Enerji) | 0.40 | 1.90 | 1.70 | Op.Rights Transfer | Hydro | Unknown |
| Karasu I Hes (İdeal Enerji Üretimi) | 3.84 | 19.00 | 11.00 | Private | Hydro | Unknown |
| Besni Kayseri Ve Civari Enerji) | 0.27 | 0.50 | 0.20 | Op.Rights Transfer | Hydro | Unknown |
| Kazankaya Reg. Ve İncesu Hes (Aksa) | 15.00 | 48.00 | 27.00 | Private | Hydro | Unknown |
| Kesme Reg. Ve Hes (Kivanç Enerji) | 2.31 | 8.02 | 4.51 | Private | Hydro | Unknown |
| Kesme Reg. Ve Hes (Kivanç Enerji) | 2.31 | 8.02 | 4.51 | Private | Hydro | Unknown |
| Çağ-Çağ (Nas Enerji A.Ş.) | 14.40 | 25.00 | 22.00 | Op.Rights Transfer | Hydro | Unknown |
| Kiran Hes (Arşan Enerji A.Ş.) | 9.74 | 41.00 | 23.00 | Private | Hydro | Unknown |
| Koruköy Hes (Akar Enerji San. Tic.) | 3.03 | 22.00 | 13.00 | Private | Hydro | Unknown |
| Köyobasi Hes (Şirikoğlu Elektrik) | 1.07 | 5.00 | 3.00 | Private | Hydro | Unknown |
| Kozdere Hes (Ado Madencilik Elkt.) | 3.15 | 14.00 | 8.00 | Private | Hydro | Unknown |
| Kulp I Hes (Yıldızlar Enerji Elk.Ür.) | 22.92 | 78.00 | 44.00 | Private | Hydro | Unknown |
| Çemişkezek (Boydak Enerji) | 0.12 | 0.80 | 0.50 | Op.Rights Transfer | Hydro | Unknown |
| Molu Enerji (Zamanlı-Bahçelik Hes) | 4.17 | 30.00 | 30.00 | Private | Hydro | Unknown |
| Muratlı Reg. Ve Hes (Armahes El.) | 26.70 | 94.00 | 55.00 | Private | Hydro | Unknown |
| Narinkale Reg. Ve Hes (Ebd Enerji) | 30.40 | 108.00 | 61.00 | Private | Hydro | Unknown |

| Unit Name | Capacity (Mw) | Project Production Potential (Gwh) | Firm Production (Gwh) | Type | Fuel | Date Of Commissioning |
|--|---------------|------------------------------------|-----------------------|--------------------|-------|-----------------------|
| Ören Reg. Ve Hes (Çelikler Elektrik) | 6.64 | 29.00 | 16.00 | Private | Hydro | Unknown |
| Otluca li Hes (Beyobasi Enerji Ür.) | 6.36 | 27.00 | 15.00 | Private | Hydro | Unknown |
| Pinarbaşı (Kayseri Ve Civari El.T.A.Ş) | 0.10 | 0.40 | 0.30 | Op.Rights Transfer | Hydro | Unknown |
| Poyraz Hes (Yeşil Enerji Elektrik) | 2.66 | 10.00 | 6.00 | Private | Hydro | Unknown |
| Saraçbendi Hes (Çamlica Elektrik) | 25.48 | 101.00 | 57.00 | Private | Hydro | Unknown |
| Sarikavak Hes (Eser Enerji Yat. Aş.) | 8.06 | 43.00 | 24.00 | Private | Hydro | Unknown |
| Sayan Hes (Karel Elektrik Üretim) | 14.90 | 47.00 | 27.00 | Private | Hydro | Unknown |
| Sefaköy Hes (Pure Enerji Üretim Aş.) | 33.11 | 121.00 | 68.00 | Private | Hydro | Unknown |
| Seyrantepe Hes (Düzelme)) | 7.14 | 26.02 | 20.24 | Private | Hydro | Unknown |
| Sizir (Kayseri Ve Civari El. T.A.Ş) | 5.76 | 46.00 | 35.00 | Op.Rights Transfer | Hydro | Unknown |
| Söğütlükaya (Posof Iii) Hes | 6.13 | 31.00 | 18.00 | Private | Hydro | Unknown |
| Tefen Hes (Aksu Madencilik San.) | 11.00 | 47.00 | 26.67 | Private | Hydro | Unknown |
| Tefen Hes (Aksu Madencilik San.) | 22.00 | 94.00 | 53.33 | Private | Hydro | Unknown |
| Turunçova(Finike) (Turunçova En.) | 0.55 | 1.50 | 0.80 | Op.Rights Transfer | Hydro | Unknown |
| Tuztaşı Hes (Gürüz Elektrik Ür.) | 1.61 | 10.00 | 6.00 | Private | Hydro | Unknown |
| Uludere (Nas Enerji A.Ş.) | 0.64 | 3.20 | 2.60 | Op.Rights Transfer | Hydro | Unknown |
| Üzümlü Hes (Akgün Enerji Üretim) | 11.36 | 41.00 | 23.00 | Private | Hydro | Unknown |
| Varto (Mostar Enerji Elektrik) | 0.29 | 0.80 | 0.60 | Op.Rights Transfer | Hydro | Unknown |
| Yamaç Hes (Yamaç Enerji Üretim A.Ş.) | 5.46 | 17.00 | 10.00 | Private | Hydro | Unknown |
| Yaprak li Hes (Nisan Elektromek.) | 5.40 | 16.00 | 10.50 | Private | Hydro | Unknown |
| Yaprak li Hes (Nisan Elektromek.) | 5.40 | 16.00 | 10.50 | Private | Hydro | Unknown |
| Yaşil Hes (Yaşil Enerji Elektrik) | 1.52 | 6.00 | 3.20 | Private | Hydro | Unknown |
| Yaşil Hes (Yaşil Enerji Elektrik) | 2.28 | 9.00 | 4.80 | Private | Hydro | Unknown |
| Yedigöl Reg. Ve Hes (Yedigöl Hidr.) | 21.90 | 77.00 | 42.00 | Private | Hydro | Unknown |
| Yedigöze Hes (Yedigöze Elek.) (İlave) | 155.33 | 474.83 | 133.95 | Private | Hydro | Unknown |
| Ayrancılar Hes (Muradiye Elektrik) | 13.38 | 53.34 | 31.16 | Private | Hydro | Unknown |
| Ayrancılar Hes (Muradiye Elektrik) | 18.72 | 74.64 | 43.73 | Private | Hydro | Unknown |
| Bayramhacili Barajı Ve Hes | 47.00 | 175.00 | 95.00 | Private | Hydro | Unknown |
| Cevher I-li Reg. Ve Hes (Özcevher En.) | 16.36 | 65.00 | 32.00 | Private | Hydro | Unknown |
| Karasu li Hes (İdeal Enerji Üretimi) | 3.08 | 13.00 | 8.00 | Private | Hydro | Unknown |
| Bandırma Enerji (Bandırma Res) | 3.00 | 10.50 | 9.50 | Private | Wind | Unknown |

Table 8c

Source:<http://www.teias.gov.tr/KAPASITEPROJEKSIYONU2012.pdf>

| Name Of Unit | Fuel | Ownership | Capacity (MW) | Project Production Potential (Gwh) | Firm Production Gwh | Date of Commissioning |
|--|-------------|---------------|---------------|------------------------------------|---------------------|-----------------------|
| Acarsoy Termik Kom.Çev.Sant. (Acarsoy En.) | Natural Gas | Private | 50 | 375 | 375 | 27/12/12 |
| Afyon Dgkç (Dedeli Doğalgaz Elektrik Ür.) | Natural Gas | Private | 126.1 | 945 | 945 | |
| Age Doğalgaz Kom. Çev. Sant. (Age Denizli) | Natural Gas | Private | 94 | 1057 | 705 | |
| Age Doğalgaz Kom. Çev. Sant. (Age Denizli) | Natural Gas | Private | 47 | 1057 | 352 | |
| Akdeniz Kimya San. Ve Tic. A.Ş. | Natural Gas | Auto Producer | 2.022 | 15 | 15 | |

| Name Of Unit | Fuel | Ownership | Capacity (MW) | Project Production Potential (Gwh) | Firm Production Gwh | Date of Commissioning |
|---|-------------|---------------|---------------|------------------------------------|---------------------|-----------------------|
| Akdeniz Kimya San. Ve Tic. A.Ş. | Natural Gas | Auto Producer | 2.022 | 15 | 15 | |
| Akköprü (Dalaman) | Hydro | EUAS | 57.5 | 171.5 | 88 | |
| Akköprü (Dalaman) | Hydro | EUAS | 57.5 | 171.5 | 88 | |
| Akköy li Hes (Akköy Enerji A.Ş.) | Hydro | Private | 114.84 | 449.5 | 254 | |
| Akköy li Hes (Akköy Enerji A.Ş.) | Hydro | Private | 114.84 | 449.5 | 254 | |
| Akköy-Espiye Hes (Koni İnşaat San. A.Ş.) | Hydro | Private | 8.912 | 40 | 22 | |
| Aksa Akrilik Kimya San. A.Ş. (İthal Köm.+D.G) | Natural Gas | Private | 75 | 525 | 525 | |
| Aksu Res (Aksu Temiz Enerji Elektrik Üretim) | Wind | Private | 36 | 0 | 0 | |
| Aksu Res (Aksu Temiz Enerji Elektrik Üretim) | Wind | Private | 30 | 0 | 0 | |
| Aksu Res (Aksu Temiz Enerji Elektrik Üretim) | Wind | Private | 6 | 0 | 0 | |
| Alabalık Reg. Ve Hes Santrali I-li (Darboğaz Elk. Ür. San.) | Hydro | Private | 13.84 | 0 | 0 | |
| Ales Doğalgaz Kom. Çev. Sant. (Ales Elekt.) | Natural Gas | Private | 49 | 370 | 370 | 29/12/12 |
| Alpaslan I (Elektrik Üretim A.Ş.) | Hydro | EUAS | 80 | 244 | 209 | |
| Alpaslan I (Elektrik Üretim A.Ş.) | Hydro | EUAS | 80 | 244 | 209 | |
| Altinyıldız Mensucat Ve Konf. Fab. (Tekirdağ) | Natural Gas | Auto Producer | 5.5 | 38 | 38 | |
| Anak Hes (Kor-En Korkuteli Elek. Üret. San.) | Hydro | Private | 3.76 | 15 | 9 | |
| Arakli-1 Reg. Ve Hes(Yüceyurt Enerji Üretim) | Hydro | Private | 10.203 | 39 | 21.84 | |
| Arakli-1 Reg. Ve Hes(Yüceyurt Enerji Üretim) | Hydro | Private | 13.067 | 50 | 28 | |
| Arca Hes (Gürsu Temiz Enerji Üretim A.Ş.) | Hydro | Private | 5.45 | 0 | 0 | |
| Arca Hes (Gürsu Temiz Enerji Üretim A.Ş.) | Hydro | Private | 10.9 | 0 | 0 | |
| Arel Enerji Biyokütle Tesisi (Arel Çevre) | Solid Waste | Private | 1.2 | 9 | 9 | |
| Arel Enerji Biyokütle Tesisi (Arel Çevre) | Solid Waste | Private | 1.2 | 9 | 9 | |
| Arpa Reg. Ve Hes (Mck Elektrik Üretim A.Ş.) | Hydro | Private | 32.412 | 78 | 44 | |
| Asaş Alüminyum Sanayi Ve Ticaret A.Ş. | Natural Gas | Auto Producer | 8.6 | 65 | 65 | |
| Ataköy (Zorlu Doğal Elektrik Üretimi A.Ş.) | Hydro | ORT | 5.525 | 20 | 11 | |
| Avcılar Hes (Avcılar Enerji Elektrik Üret.) | Hydro | Private | 16.743 | 49 | 28 | |
| Ayancık Hes (İlk Elektrik Enerji Üretimi Sn.) | Hydro | Private | 15.6 | 65 | 37 | |
| Ayrancılar Hes (Muradiye Elektrik Üretim) | Hydro | Private | 9.359 | 0 | 0 | |
| Bağıştaş li Hes (Akdenizli Elektrik Üretim) | Hydro | Private | 32.4 | 122 | 69 | 23/12/12 |
| Balikesir Res (Bares Elektrik Üretim A.Ş.) | Wind | Private | 112.8 | 52.90 | 45.10 | |
| Balikesir Res (Bares Elektrik Üretim A.Ş.) | Wind | Private | 112.8 | 63.48 | 54.12 | |

| Name Of Unit | Fuel | Ownership | Capacity (MW) | Project Production Potential (Gwh) | Firm Production Gwh | Date of Commissioning |
|--|-------------|---------------|---------------|------------------------------------|---------------------|-----------------------|
| Üretim A.Ş.) | | | | | | |
| Balikesir Res (Enerjisa Enerji Üretim A.Ş.) | Wind | Private | 112.8 | 95.23 | 81.18 | |
| Balikesir Res (Enerjisa Enerji Üretim A.Ş.) | Wind | Private | 112.8 | 63.48 | 54.12 | |
| Balikesir Res (Enerjisa Enerji Üretim A.Ş.) | Wind | Private | 112.8 | 74.06 | 63.14 | |
| Balikesir Res (Enerjisa Enerji Üretim A.Ş.) | Wind | Private | 112.8 | 84.65 | 72.16 | |
| Balkusan Baraji Ve Hes 1 Nolu Sant. (Karen) | Hydro | Private | 13 | 0 | 0 | |
| Balkusan Baraji Ve Hes 2 Nolu Sant. (Karen) | Hydro | Private | 25 | 0 | 0 | |
| Balsuyu Mensucat San. Ve Tic. A.Ş. | Natural Gas | Auto Producer | 9.73 | 68 | 68 | |
| Bamen Kojenerasyon (Başyazicioğlu Tekstil) | Natural Gas | Auto Producer | 2.145 | 14 | 14 | |
| Bandirma Res (Yapisan Elektrik Üretim A.Ş.) | Wind | Private | 5 | 0 | 0 | |
| Bangal Reg. Ve Kuşluk Hes (Kudret Enerji) | Hydro | Private | 17 | 0 | 0 | |
| Bektemur Hes (Diz-Ep Elektrik Üretim Ltd.) | Hydro | Private | 3.492 | 20 | 11 | |
| Bereket Enerji Üretim A.Ş. (Biogaz) | Solid Waste | Private | 0.635 | 0 | 0 | |
| Beyköy (Zorlu Doğal Elektrik Üretimi A.Ş.) | Hydro | ORT | 16.8 | 87 | 87 | |
| Beypi Beypazari Tarımsal Üretim Pz. Sn. A.Ş. | Natural Gas | Auto Producer | 8.6 | 63 | 63 | |
| Bilecik Doğalgaz Çs. (Tekno Doğalgaz Çev.) | Natural Gas | Private | 25.8 | 190 | 190 | |
| Bilecik Doğalgaz Kçs. (Dedeli Doğalgaz El.) | Natural Gas | Private | 19.4 | 142 | 142 | |
| Bilecik Doğalgaz Kçs. (Dedeli Doğalgaz El.) | Natural Gas | Private | 107.03 | 803 | 803 | |
| Bilkur Tekstil Boya Tic. A.Ş. | Natural Gas | Auto Producer | 2 | 14 | 14 | |
| Binatom Elektrik Üretim A.Ş. (Emet/Kütahya) | Natural Gas | Private | 2.145 | 16 | 16 | |
| Binatom Elektrik Üretim A.Ş. (Emet/Kütahya) | Natural Gas | Private | 2.145 | 16 | 16 | |
| Binatom Elektrik Üretim A.Ş. (Emet/Kütahya) | Natural Gas | Private | 4.044 | 30 | 30 | |
| Binatom Elektrik Üretim A.Ş. (Emet/Kütahya) | Natural Gas | Private | 2.022 | 15 | 15 | |
| Bis Enerji(Sanayi/ Bursa) | Natural Gas | Private | 48 | 361.57 | 361.57 | |
| Bosen Enerji Elektrik Üretim Aş.(Bursa) | Natural Gas | Private | 27.96 | 209.86 | 209.86 | |
| Boyabat Baraji Ve Hes (Boyabat Elektrik) | Hydro | Private | 513 | 0 | 0 | |
| Bozyaka Res (Kardemir Haddecilik Ve Elekt.) | Wind | Private | 12 | 0 | 0 | |
| Büyükdüz Hes (Ayen Enerji A.Ş.) | Hydro | Private | 68.862 | 192 | 109 | |
| Çağlayan Hes (Çağlayan Hes Enerji Üretim) | Hydro | Private | 6 | 21 | 12 | |

| Name Of Unit | Fuel | Ownership | Capacity (MW) | Project Production Potential (Gwh) | Firm Production Gwh | Date of Commissioning |
|---|-------------|---------------|---------------|------------------------------------|---------------------|-----------------------|
| Can 1 Hes (Hed Elektrik Üretim A.Ş.) | Hydro | Private | 1.844 | 10 | 6 | |
| Çarşamba Hes (Çarşamba Enerji Elektrik) | Hydro | Private | 11.31 | 63 | 36 | |
| Ceyhan Hes (Berkman Hes) (Enova En Üret.) | Hydro | Private | 12.605 | 50.35 | 31.34 | |
| Çildir (Zorlu Doğal Elektrik Üretimi A.Ş.) | Hydro | ORT | 15.36 | 30 | 20 | |
| Çınar-1 Hes (Aycan Enerji Üretim Tic. Ve Sn.) | Hydro | Private | 9.26 | 34 | 19 | |
| Çukurçayı Hes (Aydemir Elektrik Üretim A.Ş.) | Hydro | Private | 1.8 | 4 | 2 | |
| Cuniş Reg. Ve Hes (Rinerji Rize Elektrik Ür.) | Hydro | Private | 2.8 | 12 | 7 | |
| Cuniş Reg. Ve Hes (Rinerji Rize Elektrik Ür.) | Hydro | Private | 5.6 | 24 | 14 | |
| Dağpazari Res (Enerjisa Enerji Üretim A.Ş.) | Wind | Private | 36 | 0 | 0 | |
| Dağpazari Res (Enerjisa Enerji Üretim A.Ş.) | Wind | Private | 3 | 0 | 0 | |
| Demirciler Hes (Pak Enerji Üretimi San.) | Hydro | Private | 3.124 | 0 | 0 | |
| Demirciler Hes (Pak Enerji Üretimi San.) | Hydro | Private | 5.317 | 0 | 0 | |
| Deniz Jeotermal (Maren Maraş Elektrik) | Geothermal | Private | 24 | 0 | 0 | |
| Denizli Jeotermal (Zorlu Doğal Elek. Ür.A.Ş.) | Lignite | ORT | 15 | 105 | 105 | |
| Diğerleri (İzole) (Ereğli Şeker) | Fuel Oil | Auto Producer | 9.5 | 30 | 30 | |
| Diğerleri (İzole) (Kırşehir Şeker) | Fuel Oil | Auto Producer | 5.9 | 18 | 18 | |
| Dinar Res (Olgu Enerji Yatırım Üretim) | Wind | Private | 16.1 | 0 | 0 | |
| Doğankaya Hes (Mar-En Enerji Üret. Tic.) | Hydro | Private | 20.55 | 98 | 56 | |
| Dumlu Hes (Dumlu Enerji Elektrik Üretim) | Hydro | Private | 3.982 | 9 | 5 | |
| Durmazlar Makina Sanayi Ve Ticaret A.Ş. | Natural Gas | Auto Producer | 1.286 | 10 | 10 | |
| Durum Gıda Termik Kojen. Sant. (Durum Gıda) | Natural Gas | Auto Producer | 3.6 | 29 | 29 | |
| Ege Seramik Enerji Santrali | Natural Gas | Auto Producer | 13.08 | 90 | 90 | |
| Eger Hes (Eger Elektrik Üretim Ltd. Şti.) | Hydro | Private | 1.92 | 10 | 6 | |
| Ekim Biyogaz (Ekim Grup Elektrik Üretim) | Solid Waste | Private | 1.2 | 10 | 10 | |
| Enerji-Sa (Çanakkale) | Natural Gas | Private | 0.915 | 7.32 | 7.32 | |
| Enerji-Sa (Köseköy) | Natural Gas | Private | 120 | 930 | 930 | |
| Enerji-Sa (Mersin) | Natural Gas | Private | 1.465 | 66 | 520 | |
| Enerji-Sa (Zeytinli/Adana) | Natural Gas | Private | 0.83 | 5.81 | 5.81 | |
| Erdemir(F.O+K.G+Y.F.G+Dg)(Ereğli-Zonguldak) | Natural Gas | Auto Producer | 53.9 | 327 | 327 | |

| Name Of Unit | Fuel | Ownership | Capacity (MW) | Project Production Potential (Gwh) | Firm Production Gwh | Date of Commissioning |
|---|---------------|---------------|---------------|------------------------------------|---------------------|-----------------------|
| Eren Enerji Elektrik Üretim A.Ş. | Imported Coal | Private | 30 | 196 | 196 | |
| Erik Hes (Elektrik Üretim A.Ş.) | Hydro | EUAS | 6.48 | 34 | 21 | |
| Ermeneç (Elektrik Üretim A.Ş.) | Hydro | EUAS | 151.2 | 593.5 | 408.5 | |
| Ermeneç (Elektrik Üretim A.Ş.) | Hydro | EUAS | 151.2 | 593.5 | 408.5 | |
| Erzurum Meydan Avm (Redevko Bir Emlak) | Natural Gas | Auto Producer | 2.436 | 16 | 16 | |
| Es Es Eskişehir Enerji San. Ve Tic. A.Ş. | Biogas | Auto Producer | 2.042 | 15 | 15 | |
| Esendurak Hes (Meral Elektrik Üretim) | Hydro | Private | 9.33 | 0 | 0 | |
| Fek 1 Hes (Akkur Enerji Üretim Tic. Ve San.) | Hydro | Private | 29.4 | 0 | 0 | |
| Fek 2 Barajı Ve Hes (Akkur Enerji Üretim) | Hydro | Private | 69.34 | 0 | 0 | |
| Findik I Hes (Adv Elektrik Üretim Ltd. Şti.) | Hydro | Private | 11.25 | 48 | 27 | 27/12/2012 |
| Gaski Merkez Atık Su Aritma Tesisi | Biogas | Auto Producer | 1.659 | 12 | 12 | |
| Gemciler Reg. Ve Hes (Boztepe Enerji Üret.) | Hydro | Private | 7.98 | 35 | 20 | |
| Gökgedik Hes (Uhud Enerji Üretim Tic.) | Hydro | Private | 20.49 | 84 | 63 | |
| Gökgedik Hes (Uhud Enerji Üretim Tic.) | Hydro | Private | 3.776 | 16 | 12 | |
| Göknur Gıda Mad. En. İm. İt. İh. Tic. Ve San. Aş. | Imported Coal | Auto Producer | 1.55 | 6 | 6 | |
| Goodyear (İzmit/Köseköy) | Natural Gas | Auto Producer | 5.2 | 39 | 39 | |
| Güdü 2 Hes (Yaşam Enerji Elektrik Üretim) | Hydro | Private | 4.88 | 20 | 15 | |
| Güllübağ Barajı Ve Hes (Senenerji Enerji) | Hydro | Private | 96 | 0 | 0 | |
| Günaydın Res (Manres Elektrik Üretim A.Ş.) | Wind | Private | 10 | 0 | 0 | |
| Günder Reg. Ve Hes (Arik Enerji Üretim A.Ş.) | Hydro | Private | 28.22 | 0 | 0 | |
| Günder Reg. Ve Hes (Arik Enerji Üretim A.Ş.) | Hydro | Private | 0 | 0 | 0 | |
| Gürteks İplik Sanayi Ve Ticaret A.Ş. | Natural Gas | Auto Producer | 6.698 | 53 | 53 | |
| Hatipoğlu Plastik Yapı Elemanları San. | Natural Gas | Auto Producer | 2 | 14 | 14 | |
| Horu Reg. Ve Hes (Maraş Enerji Yatırım Sn.) | Hydro | Private | 4.24 | 17 | 12.5 | |
| Horu Reg. Ve Hes (Maraş Enerji Yatırım Sn.) | Hydro | Private | 4.24 | 17 | 12.5 | |
| Horyan Hes (Horyan Enerji A.Ş.) | Hydro | Private | 5.68 | 23 | 15 | |
| İkizdere (Zorlu Doğal Elektrik Üretimi A.Ş.) | Hydro | ORT | 18.6 | 110 | 100 | |
| İnnores Elektrik Yuntdağ Rüzgar (Aliağa-İzmir) | Wind | Private | 5 | 0 | 0 | |
| İşbirliği Enerji Üretim San. Ve Tic. A.Ş. | Natural Gas | Private | 19.46 | 146 | 146 | |
| İtc Adana Enerji Üretim (Adana Biokütle Snt) | Solid Waste | Private | 4.245 | 0 | 0 | |

| Name Of Unit | Fuel | Ownership | Capacity (MW) | Project Production Potential (Gwh) | Firm Production Gwh | Date of Commissioning |
|---|-------------|---------------|---------------|------------------------------------|---------------------|-----------------------|
| Itc Bursa Enerji Üretim San. Ve Tic. A.Ş. | Solid Waste | Private | 7 | 0 | 0 | |
| Itc Bursa Enerji Üretim San. Ve Tic. A.Ş. | Solid Waste | Private | 1.4 | 0 | 0 | |
| Itc Bursa Enerji Üretim San. Ve Tic. A.Ş. | Solid Waste | Private | 1.4 | 0 | 0 | |
| İzaydaş (İzmit Çöp)(Köseköy) | Solid Waste | Private | 0.33 | 2.22 | 2.22 | |
| İzmir Büyük Efes Oteli | Natural Gas | Auto Producer | 1.2 | 9 | 9 | |
| Kojenerasyon Tes. Jti Torbali Kojenerasyon Santr. (Jti Tütün) | Natural Gas | Auto Producer | 4 | 30 | 30 | |
| Karadağ Res (Garet Enerji Üretim) | Wind | Private | 10 | 0 | 0 | |
| Kartalkaya Hes (Sir Enerji Üretim San.) | Hydro | Private | 8.001 | 27 | 15 | |
| Kayadüzü Res (Baktepe Enerji A.Ş.) | Wind | Private | 7.5 | 0 | 0 | |
| Kayadüzü Res (Baktepe Enerji A.Ş.) | Wind | Private | 25 | 0 | 0 | |
| Kayadüzü Res (Baktepe Enerji A.Ş.) | Wind | Private | 6.5 | 0 | 0 | |
| Kayaköprü 2 Hes (Arsan Enerji A.Ş.) | Hydro | Private | 10.2 | 36 | 36 | |
| Kayseri Kati Atik Deponi Sahası (Her Enerji) | Solid Waste | Private | 1.305 | 0 | 0 | |
| Keskinoğlu Tavukçuluk Ve Damızlık İşlet. | Natural Gas | Auto Producer | 6 | 45 | 45 | |
| Kilavuzlu Hes (Elektrik Üretim A.Ş.) | Hydro | EUAS | 40.5 | 150 | 100 | |
| Kirikdağ Hes (Özenir Enerji Elektrik Üret.) | Hydro | Private | 16.86 | 71 | 40 | |
| Kivanç Tekstil San.Ve Tic.A.Ş. | Natural Gas | Auto Producer | 2.145 | 12 | 12 | |
| Kocaeli Çöp Biyogaz (Lfg) (Körfez Enerji) | Solid Waste | Private | 1.2 | 0 | 0 | |
| Kocaeli Çöp Biyogaz (Lfg) (Körfez Enerji) | Solid Waste | Private | 1.063 | 0 | 0 | |
| Köknar Hes (Aycan Enerji Üretim Tic.) | Hydro | Private | 8.024 | 25 | 15 | |
| Kozbeyli Res (Doğal Enerji Elektrik Üretim) | Wind | Private | 20 | 0 | 0 | |
| Kozdere Hes (Ado Madencilik Elektrik Ür.) | Hydro | Private | 6.12 | 9.24 | 5.28 | |
| Küçükler Tekstil San. Ve Tic. A.Ş. | Lignite | Auto Producer | 5 | 40 | 40 | |
| Kürce Reg. Ve Hes (Dedegöl Enerji) | Hydro | Private | 12.046 | 48 | 36 | |
| Kütahya Şeker Fabrikası (İzole) | 4.568 | | 4.568 | | | |
| Kütahya Şeker Fabrikası (İzole) | 4.568 | | 4.568 | | | |
| Kuzgun (Zorlu Doğal Elektrik Üretimi A.Ş.) | Hydro | ORT | 20.9 | 36 | 0 | |
| Menge Barajı Ve Hes (Enerjisa Enerji) | Hydro | Private | 44.71 | 0 | 0 | |
| Mercan (Zorlu Doğal Elektrik Üretimi A.Ş.) | Hydro | ORT | 20.4 | 0 | 0 | |
| Metristepe Res (Can Enerji) | Wind | Private | 27.5 | 0 | 0 | |

| Name Of Unit (Entegre Elekt.) | Fuel | Ownership | Capacity (MW) | Project Production Potential (Gwh) | Firm Production Gwh | Date of Commissioning |
|--|-------------|---------------|------------------|---|---------------------------|--------------------------|
| Metristepe Res (Can Enerji Entegre Elekt.) | Wind | Private | 11.5 | 0 | 0 | |
| Midilli Reg. Ve Hes (Masat Enerji Elektrik) | Hydro | Private | 20.97 | 81 | 45 | |
| Mosb Enerji Elektrik Üretim Ltd. Şti. (Dg.+M+F.O.)(Manisa) | | | 12 | | | |
| Murat I-li Reg. Ve Hes (Murat Hes Enerji El.) | Hydro | Private | 35.628 | 0 | 0 | |
| Muratli Reg. Ve Hes (Armahes Elektrik Ür.) | Hydro | Private | 11 | 27 | 16 | |
| Mursal I Hes (Peta Mühendislik Enerji) | Hydro | Private | 4.18 | 17 | 13 | |
| Mutlu Makarnacilik Sanayi Ve Ticaret A.Ş.) | Natural Gas | Auto Producer | 2 | 16 | 16 | |
| Naksan Enerji Elektrik Üretim A.Ş. | Natural Gas | Private | 8 | 60 | 60 | |
| Naksan Enerji Elektrik Üretim A.Ş. | Natural Gas | Private | 8 | 60 | 60 | |
| Niksar Hes (Niksar Enerji Üretim Ltd. Şti.) | Hydro | Private | 20.08 | 0 | 0 | |
| Niksar Hes (Niksar Enerji Üretim Ltd. Şti.) | Hydro | Private | 20.08 | 0 | 0 | |
| Odaş Doğalgaz Kçs (Odaş Elektrik Üretim) | Natural Gas | Private | 54.96 | 415 | 415 | |
| Odaş Doğalgaz Kçs (Odaş Elektrik Üretim) | Natural Gas | Private | 18.32 | 135 | 135 | |
| Ofim Enerji Santrali (Ostim Finans Ve İş Mer.) | Natural Gas | Private | 2.05 | 16 | 16 | |
| Ören Reg. Ve Hes (Çelikler Elektrik Üretim) | Hydro | Private | 19.932 | 21.75 | 12 | |
| Ortadoğu Enerji (Kömürcüoda) (Şile/İstanbul) | Solid Waste | Private | 2.83 | 0 | 0 | |
| Ortadoğu Enerji (Oda Yeri) (Eyüp/İstanbul) | Solid Waste | Private | 4.092 | 0 | 0 | |
| Özmaya Sanayi A.Ş. | Natural Gas | Auto Producer | 5.354 | 40 | 40 | |
| Pamukova Yen. En. Ve Elek. Ür. A.Ş. | Solid Waste | Private | 1.4 | 0 | 0 | |
| Pancar Elektrik Üretim A.Ş. | Natural Gas | Private | 17.46 | 130 | 130 | |
| Pancar Elektrik Üretim A.Ş. | Natural Gas | Private | 17.46 | 130 | 130 | |
| Papart Hes (Elite Elektrik Üretim) | Hydro | Private | 22 | 87.98 | 66.4 | |
| Papart Hes (Elite Elektrik Üretim) | Hydro | Private | 4.6 | 0 | 0 | |
| Pisa Tekstil Ve Boya Fabrikalari (İstanbul) | Natural Gas | Auto Producer | 1.02 | 7 | 7 | |
| Polat Hes (Elestaş Elektrik Üretim A.Ş.) | Hydro | Private | 3.28 | 14 | 10 | |
| Polat Hes (Elestaş Elektrik Üretim A.Ş.) | Hydro | Private | 3.28 | 14 | 10 | |
| Poyraz Res (Poyraz Enerji Elektrik Üretim) | Wind | Private | 14 | 0 | 0 | |

Poyraz Res (Poyraz Enerji Elektrik Üretim)

Wind

Private

20

0

0

| Name Of Unit | Fuel | Ownership | Capacity (MW) | Project Production Potential (Gwh) | Firm Production Gwh | Date of Commissioning |
|---|-------------|---------------|---------------|------------------------------------|---------------------|-----------------------|
| Poyraz Res (Poyraz Enerji Elektrik Üretim) | Wind | Private | 16 | 0 | 0 | |
| Samsun Avdan Kati Atik (Samsun Avdan En.) | Solid Waste | Private | 2.4 | 0 | 0 | |
| Samurlu Res (Doğal Enerji Elektrik Üret.) | Wind | Private | 12 | 0 | 0 | |
| Samurlu Res (Doğal Enerji Elektrik Üret.) | Wind | Private | 10 | 0 | 0 | |
| Sancar Reg. Ve Hes (Melita Elektrik Üretim) | Hydro | Private | 0.74 | 3 | 2 | |
| Şanlıurfa Osb (Rasa Enerji Üretim A.Ş.) | Natural Gas | Private | 11.72 | 82 | 82 | |
| Sarihidir Hes (Molu Enerji Üretim A.Ş.) | Hydro | Private | 6 | 24 | 18 | |
| Seçuk İplik San. Ve Tic. A.Ş. | Natural Gas | Auto Producer | 8.6 | 65 | 65 | |
| Selva Gıda San. A.Ş. | Natural Gas | Auto Producer | 1.712 | 14 | 14 | |
| Şenköy Res (Eolos Rüzgar Enerjisi Üretim) | Wind | Private | 26 | 0 | 0 | |
| Seyrantepe Hes (Seyrantepe Elekt. Üret.) | Hydro | Private | 56.84 | 207 | 161 | |
| Sezer Bio Enerji (Kalemirler Enerji Elektr.) | Solid Waste | Private | 0.5 | 4 | 4 | |
| Şifrin Reg. Ve Hes (Bomonti Elk. Müh. Müş.) | Hydro | Private | 6.744 | 18 | 10 | |
| Sinem Jeotermal (Maren Maraş Elektrik) | Geothermal | Private | 24 | 0 | 0 | |
| Sirakonaklar Hes (2m Enerji Üretim A.Ş.) | Hydro | Private | 18 | 0 | 0 | |
| Soda Sanayi A.Ş. (Mersin) | | 252.2 | 252.2 | | | |
| Söke-Çatalbük Res (Abk Enerji Elektrik) | Wind | Private | 18 | 0 | 0 | |
| Söke-Çatalbük Res (Abk Enerji Elektrik) | Wind | Private | 12 | 0 | 0 | |
| Soma Res (Soma Enerji Elektrik Üretim A.Ş.) | Wind | Private | 24 | 0 | 0 | |
| Suluköy Hes (Du Elektrik Üretim A.Ş.) | Hydro | Private | 6.924 | 0 | 0 | |
| Tekirdağ-Çorlu Koj. San. (Ode Yalitim San.) | Natural Gas | Auto Producer | 2.035 | 15 | 15 | |
| Teleme Reg. Ve Hes (Tayen Elektrik Üret.) | Hydro | Private | 1.57 | 11 | 6 | |
| Telli I-li Hes (Falanj Enerji Elektrik Üret.) | Hydro | Private | 8.72 | 32 | 18 | |
| Tercan (Zorlu Doğal Elektrik Üretimi A.Ş.) | Hydro | ORT | 15 | 51 | 28 | |
| Trakya Yenişehir Cam San. A.Ş. | Biogas | Auto Producer | 6 | 45 | 45 | |
| Tuğra Reg. Ve Hes (Vira Elektrik Üretim A.Ş.) | Hydro | Private | 4.9 | 18 | 10 | 29/12/12 |
| Tuna Hes (Nisan Elektromekanik Enerji) | Hydro | Private | 37.19 | 92 | 52 | |
| Tuzköy Hes (Baten Enerji Üretimi A.Ş.) | Hydro | Private | 8.44 | 0 | 0 | |
| Tuzlaköy-Serge Reg. Ve Hes (Tuyat Elekt.) | Hydro | Private | 7.14 | 0 | 0 | |

| Name Of Unit | Fuel | Ownership | Capacity (MW) | Project Production Potential (Gwh) | Firm Production Gwh | Date of Commissioning |
|---|-------------|---------------|---------------|------------------------------------|---------------------|-----------------------|
| Üçkaya Hes (Şirikçioğlu Elektrik Üretim A.Ş.) | Hydro | Private | 1.04 | 10 | 6 | |
| Umut I Reg. Ve Hes (Nisan Elektromekanik) | Hydro | Private | 5.8 | 21 | 12 | |
| Vizara Reg. Ve Hes (Öztürk Elekt. Üret. Ltd.) | Hydro | Private | 8.578 | 0 | 0 | |
| Yağmur Reg. Ve Hes (Bt Bordo Elk. Ür.) | Hydro | Private | 8.946 | 0 | 0 | |
| Yamanli Iii Kaps. Gökkaya Hes (Mem Enerji) | Hydro | Private | 28.54 | 0 | 0 | |
| Yamanli Iii Kaps. Himmetli Hes (Mem Enerji) | Hydro | Private | 26.98 | 0 | 0 | |
| Yavuz Hes (Arem Enerji Üretim A.Ş.) | Hydro | Private | 5.8 | 0 | 0 | |
| Yedisu Hes (Özaltin Enerji Üretim Ve İnşaat) | Hydro | Private | 15.14 | 48 | 27 | |
| Yedisu Hes (Özaltin Enerji Üretim Ve İnşaat) | Hydro | Private | 7.57 | 24 | 14 | |
| Yeni Uşak Enerji Elektrik Santrali | Natural Gas | Private | 8.73 | 64 | 64 | |
| Yeni Uşak Enerji Elektrik Santrali | Natural Gas | Private | 1 | 7 | 7 | |
| Yildirim Hes (Bayburt Enerji Üretim Ve Tic.) | Hydro | Private | 7.118 | 26 | 15 | |
| Yildirim Hes (Bayburt Enerji Üretim Ve Tic.) | Hydro | Private | 3.559 | 13 | 7 | |
| Yokuşlu Kalkandere Hes (Sanko Enerji) | Hydro | Private | 5.2 | 0 | 0 | 30/12/12 |
| Yongapan (Kastamonu Entegre)(D.İskelesi) | Natural Gas | Auto Producer | 15.04 | 112 | 112 | |
| Zeytin Bendi Hes (Zeytin Enerji Üret. San.) | Hydro | Private | 5.2 | 18 | 10 | |
| Zeytin Bendi Hes (Zeytin Enerji Üret. San.) | Hydro | Private | 0 | 0 | 0 | |
| Zorlu Enerji (B.Karıştıran) | Natural Gas | Private | 25.7 | 193 | 193 | |