



Water Footprint Verification Verification Opinion Statement

This is to verify that:

Zorlu Enerji Elektrik Üretim A.S.

Lüleburgaz Doğalgaz Santrali / Yeni Mah. Büyükkarıştıran, Lüleburgaz, Kırklareli

Koordinatlar: 41.278499, 27.586146

Bursa Santrali; Organize Sanayi Bölgesi, Pembe Cadde No:13 Nilüfer/Bursa

*Holds Statement No: **WV 687827***

WATER FOOTPRINT DETAILS

Reporting Year(s): 01/01/2019-31/12/2019
Date of Water Footprint Report: 20th June 2020

FACILITY VERIFICATION DETAILS

Proportion of facilities inspected during the verification? 100%

OPINION - verified:

BSI Group Eurasia Certification Services Inc has conducted a verification of the direct water footprint reported by *Zorlu Enerji Elektrik Üretim A.S.* in its Water Footprint Report dated 20.06.2020 and presented above. On the basis of the verification work undertaken (see Annex 1) these data are fairly stated.

OPINION - verified with comments:

As a result of carrying out the verification of direct water footprint inventory, it is the opinion of BSI that

- The direct water footprint inventory was conducted in accordance with the requirements of ISO 14046:2014 Environmental Management – Water Footprint – Principles, Requirements and Guidelines.
- No material misstatements in this direct water footprint inventory.
- Data collection period: dd./01.01.2019- 31.12.2019

Data quality was considered acceptable in meeting the principles as set out in ISO 14046:2014.

Lead Verifier :

Mehmet Kumru

Technical Reviewer :

Furkan Sadıkoğlu

Signed on behalf of BSI Group Eurasia

Certification Services Inc :

Date of Opinion :

28.07.2020



ANNEX 1 - BASIS OF THE OPINION**Zorlu Enerji Elektrik Üretimi A.Ş. (Lüleburgaz Doğalgaz Santrali)**

Lüleburgaz Doğalgaz Santrali / Yeni Mah. Büyükkarıştıran, Lüleburgaz, Kırklareli

Coordinates: 41.278499, 27.586146

Bursa Santrali; Organize Sanayi Bölgesi, Pembe Cadde No:13 Nilüfer/Bursa

Lüleburgaz Power Plant Direct Water Footprint Results;

Water resource	Water type	Amount of water taken (tonnes/year)
Raw water Basin	Underground Water - Nonrenewable	684.061
Water Booster	Underground Water - Nonrenewable	616
Condensate return	Recycled Water	188.126
	TOTAL	872.803

Bursa Power Plant Direct Water Footprint Results;

Water resource	Water type	Amount of water taken (tonnes/year)
1 st Quality tap water	Tap water	308
2 nd Quality tap water	Recycled water	1.291
	TOTAL	1.599



Water Footprint Verification

Verification Opinion Statement

This is to verify that:

Zorlu Jeotermal Elektrik Üretim A.Ş.

Alaşehir Jeotermal Tesisi

Alhan Mah. İstasyon Sok. No:6 45600 Alaşehir Manisa, Turkey

Coordinates: Y:624997,607 X:4252639,904 Z : 166,400

Holds Statement No: **WFV 687827**

WATER FOOTPRINT DETAILS

Reporting Year(s): 01/01/2019-31/12/2019
Date of Water Footprint Report: 29th June 2020

FACILITY VERIFICATION DETAILS

Proportion of facilities inspected during the verification? 100%

OPINION - verified:

BSI Group Eurasia Certification Services Inc has conducted a verification of the direct water footprint reported by *Zorlu Jeotermal Elektrik Üretim A.Ş.* in its Water Footprint Report dated *29.06.2020* and presented above. On the basis of the verification work undertaken (see Annex 1) these data are fairly stated.

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Technical Reviewer :

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Certification Services Inc :

Date of Opinion :

28.07.2020



ANNEX 1 - BASIS OF THE OPINION**Zorlu Jeotermal Elektrik Üretim A.Ş.**

Alaşehir Jeotermal Tesisi

Alhan Mah. İstasyon Sok. No:6 45600 Alaşehir Manisa

Coordinates: Y:624997,607 X:4252639,904 Z : 166,400

Direct Water Footprint Results;

Power plant	Water resource	Water type	Amount of water taken (tonnes/year)
Alaşehir	Jeotermal	Underground Water (Renewable)	20.547.079
Alaşehir	Tap Water	Freshwater	2.268
Distribution of water usage			
Alaşehir	Jeotermal Akışan	(injection and evaporation)	20.326.398

Pollutant Load;

Parameter	Pollutant flowrate (tonnes)
Chemical Oxygen Demand (COD)	0,059
Biological Oxygen Demand (BOD)	0,038
Suspended Solids (SS)	0,021



Water Footprint Verification Verification Opinion Statement

This is to verify that:

Zorlu Doğal Elektrik Üretimi A.Ş.

Kızıldere I Santrali / Karataş Mah. Sarayköy Denizli, 37°57'22.3"N 28°50'31.5"E

Kızıldere II Santrali / Karataş Mah. Sarayköy Denizli, 37°56'59.6"N 28°50'07.7"

Kızıldere III Santrali / Kızıldere Mah. Gökgedik Mevkii, Buharkent Denizli, 37°57'03.7620"N 28°49'06.4059"E

Holds Statement No: **WfV 687827**

WATER FOOTPRINT DETAILS

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Mehmet Kumru

Technical Reviewer :

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Signed on behalf of BSI Group Eurasia

Certification Services Inc :

Date of Opinion :

28.07.2020



ANNEX 1 - BASIS OF THE OPINION

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Direct Water Footprint Results;

Power plant	Water resource	Water type	Amount of water taken (tonnes/year)	Total (tonnes/year)
Kızıldere I	Jeothermal Fluid	Underground water (Renewable)	5.191.432	58.295.329
Kızıldere II			16.316.848	
Kızıldere III			36.787.049	
Kızıldere I + II + III	DSİ Irrigation Canal	Surface water	27.292	27.292
Distribution of water usage				
Kızıldere I + II + III	Jeothermal Fluid	Injection, evaporation, motel, greenhouse and heating	56.191.676	
Kızıldere I + II + III	DSİ Irrigation Canal	Surface water	250.298	

Pollutan Load;

Parameter	Pollutant flowrate (tonnes)
Chemical Oxygen Demand (COD)	29,043
Biological Oxygen Demand (BOD)	7,672
Suspended Solids (SS)	7,848