

Independent Limited Assurance Report

to the Management of Borcelik Celik Sanayii Ticaret A.S.

Borcelik Celik Sanayii Ticaret A.S. (“Borcelik”) commissioned DNV Business Assurance Germany GmbH (“DNV”, “us” or “we”) to provide limited assurance over Selected Information used by Borcelik as the basis for issuing product carbon intensity certificates.



Our Conclusion: Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Selected Information is not fairly stated and has not been prepared, in all material respects, in accordance with the Criteria. In our opinion the methodology for calculating product CO₂eq intensities has been prepared in general alignment with the WRI/WBCSD GHG Protocol for Product Lifecycle Accounting and Reporting. Borcelik’s customers that receive these certificates can utilise these product CO₂eq intensities in their Scope 3 emissions reporting in accordance with the GHG Protocol Corporate Accounting and Reporting Standard. This conclusion relates only to the Selected Information and is to be read in the context of this Assurance Report, in particular the inherent limitations explained overleaf.

Selected Information

The scope and boundary of our work is restricted to the **data** and **methodology** described below (the “Selected Information”):

- **Product CO₂eq intensities:** The amount of CO₂eq per tonne of products covered by the **methodology** relating to products (specified below) produced by Borcelik’s at the company’s site in Gemlik, Turkey (the “Entity”);
- **The methodology:** the detailed description developed by Borcelik of the processes and data sources used to calculate product carbon intensities;
- **Product carbon footprint tool:** the inventory spreadsheets containing 2021, 2020 and 2019 year data from Borcelik’s Gemlik site and calculations to determine product carbon footprints in accordance with the methodology.
- The Borcelik **product groups** covered by the product carbon footprint tool are:
 - Cold Rolled (CR)
 - Hot Dip Galvanized (HDG) produced on Continuous Galvanizing Line CGL 1
 - Hot Dip Galvanized (HDG) produced on Continuous Galvanizing Line CGL 2
 - Hot Dip Galvanized (HDG) produced on Continuous Galvanizing Line CGL 3
 - Pickled and Oiled (PO)
 - Full Hard (FH)
- For details of the GHG emissions data and product CO₂eq intensities covered by this assurance engagement, see Appendix below.

Criteria

We assessed Borcelik’s methodology and data for calculating product CO₂eq intensities against the following **Criteria** (the “Criteria”):

- The publicly available Greenhouse Gas Protocol for Product Life Cycle Accounting and Reporting Standard, as issued by WRI/WBCSD;
- Borcelik’s internal procedure for issuing certificates and tracking customer transactions; and
- Borcelik’s methodology document [summary available on request from Borcelik] on the product CO₂eq intensities, including their following definitions and programme rules:
 - **product CO₂eq intensities:** The amount in metric tonnes of CO₂eq associated with each tonne of product. The CO₂eq intensities calculation is conducted in alignment with the Greenhouse Gas Protocol for Product Life Cycle Accounting and Reporting Standard.
 - **Reporting period:** The CO₂eq intensities have been calculated based on data over the time period January 2021 to December 2021, and for the same periods in 2020 and 2019.

DNV have reviewed the reference values (sourced from CRU data) used by Borcelik for the upstream GHG emissions associated with hot rolled coil (HRC) production for the Electric Arc Furnace (EAF) and Basic Oxygen Furnace (BOF) routes. Borcelik will provide CO₂eq intensity data for its products to customers based on HRC references values, unless HRC supplier specific values are available. Where HRC supplier specific values are used, DNV will review these calculations as part of this assurance engagement.

DNV will conduct periodic reviews of the certificates issued and use of the product carbon footprint tool after an initial six month period, at which point DNV will also assure data relating to calendar year 2022.

Standard and level of assurance

We performed a **limited** assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 revised – ‘Assurance Engagements other than Audits and Reviews of Historical Financial Information’ (revised), issued by the International Auditing and Assurance Standards Board. This standard requires that we comply with ethical requirements and plan and perform the assurance engagement to obtain limited assurance.

DNV applies its own management standards and compliance policies for quality control, in accordance with ISO/IEC 17021:2011 – Conformity Assessment Requirements for bodies providing audit and certification of management systems, and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement; and the level of assurance obtained is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. We planned and performed our work to obtain the evidence we considered sufficient to provide a basis for our opinion, so that the risk of this conclusion being in error is reduced but not reduced to very low.

Basis of our conclusion

We are required to plan and perform our work in order to consider the risk of material misstatement of the Selected Information; our work included, but was not restricted to:

- Assessing the appropriateness of the Criteria for the Selected Information;
- Conducting interviews with Borcelik’s technical teams and other key personnel to obtain an understanding of the key processes, systems and controls in place to generate, aggregate and report the Selected Information;
- Site visit to Gemlik, Turkey to review evidence to support specific site level data. We were free to request interviews, data and information to support the process;
- Performing limited substantive testing on a selective basis of the Selected Information to check that data had been appropriately measured, recorded, collated and reported; and
- Reviewing that the evidence, measurements and their scope provided to us by Borcelik for the Selected Information is prepared in line with the Criteria.

DNV Business Assurance Germany GmbH

Essen, Germany

8th September 2022

Our competence, independence and quality control

DNV established policies and procedures are designed to ensure that DNV, its personnel and, where applicable, others are subject to independence requirements (including personnel of other entities of DNV) and maintain independence where required by relevant ethical requirements. This engagement work was carried out by an independent team of sustainability assurance professionals. Our multi-disciplinary team consisted of professionals with a combination of environmental and sustainability assurance experience.

Inherent limitations

All assurance engagements are subject to inherent limitations as selective testing (sampling) may not detect errors, fraud or other irregularities. Non-financial data may be subject to greater inherent uncertainty than financial data, given the nature and methods used for calculating, estimating and determining such data. The selection of different, but acceptable, measurement techniques may result in different quantifications between different entities. Our assurance relies on the premise that the data and information provided to us by Borcelik have been provided in good faith. DNV expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this Independent Limited Assurance Report.

Responsibilities of the Management of Borcelik and DNV

The Management of Borcelik have sole responsibility for:

- Preparing and presenting the Selected information in accordance with the Criteria;
- Designing, implementing and maintaining effective internal controls over the information and data, resulting in the preparation of the Selected Information that is free from material misstatements;
- Measuring and reporting the Selected Information based on their established Criteria; and
- Contents and statements contained within product carbon intensity certificates

Our responsibility is to plan and perform our work to obtain limited assurance about whether the Selected Information has been prepared in accordance with the Criteria and to report to Borcelik in the form of an independent limited assurance conclusion, based on the work performed and the evidence obtained. We have not been responsible for the preparation of the certificates. We have not reviewed whether or how Borcelik customers have used the reported CO₂e q savings in their Scope 3 reporting.

Appendix: GHG emissions data and product CO₂eq intensities covered by this assurance engagement

Total GHG emissions for Borcelik's Gemlik site, based on Borcelik's methodology document

Scope 1	Tonnes CO ₂ eq	Scope 2	Tonnes CO ₂ eq	Scope 3	Tonnes CO ₂ eq
2019	97,246	2019	74,226	2019	3,331,858
2020	95,010	2020	74,396	2020	3,100,658
2021	99,310	2021	79,394	2021	3,488,083

CO₂eq intensities for product groups produced by Borcelik

Cold Rolled (kgCO ₂ /t)								
	Scope 1		Scope 2		Scope 3		Total	
	EAF	BOF	EAF	BOF	EAF	BOF	EAF	BOF
2021	51.8	51.8	52.9	52.9	639.0	2555.9	743.7	2660.6
2020	51.3	51.3	53.2	53.2	637.6	2550.5	742.2	2655.0
2019	51.3	51.3	51.9	51.9	636.7	2546.8	739.9	2650.0

HDG on CGL 1 (kgCO ₂ /t)								
	Scope 1		Scope 2		Scope 3		Total	
	EAF	BOF	EAF	BOF	EAF	BOF	EAF	BOF
2021	99.5	99.5	63.3	63.3	637.2	2548.6	799.9	2711.4
2020	106.6	106.6	64.8	64.8	635.9	2543.5	807.2	2714.8
2019	97.7	97.7	62.2	62.2	638.0	2551.9	797.9	2711.9

HDG on CGL 2 (kgCO ₂ /t)								
	Scope 1		Scope 2		Scope 3		Total	
	EAF	BOF	EAF	BOF	EAF	BOF	EAF	BOF
2021	16.7	16.7	89.9	89.9	624.8	2499.1	731.4	2605.7
2020	18.0	18.0	90.7	90.7	626.9	2507.8	735.6	2616.4
2019	20.0	20.0	89.0	89.0	627.6	2510.3	736.6	2619.3

HDG on CGL 3 (kgCO ₂ /t)								
	Scope 1		Scope 2		Scope 3		Total	
	EAF	BOF	EAF	BOF	EAF	BOF	EAF	BOF
2021	80.4	80.4	51.9	51.9	637.2	2548.6	769.4	2680.9
2020	85.8	85.8	53.9	53.9	635.9	2543.5	775.6	2683.3
2019	87.7	87.7	50.9	50.9	638.0	2551.9	776.7	2690.6

Appendix: GHG emissions data and product CO₂eq intensities covered by this assurance engagement

Total GHG emissions for Borcelik's Gemlik site, based on Borcelik's methodology document (contd.)

PO (kgCO ₂ /t)								
	Scope 1		Scope 2		Scope 3		Total	
	EAF	BOF	EAF	BOF	EAF	BOF	EAF	BOF
2021	7.8	7.8	4.4	4.4	614.6	2458.6	626.9	2470.8
2020	8.5	8.5	4.2	4.2	614.8	2459.3	627.5	2472.0
2019	8.8	8.8	4.0	4.0	614.3	2457.2	627.1	2470.0

FH (kgCO ₂ /t)								
	Scope 1		Scope 2		Scope 3		Total	
	EAF	BOF	EAF	BOF	EAF	BOF	EAF	BOF
2021	8.8	8.8	33.7	33.7	614.9	2459.5	657.3	2502.0
2020	9.4	9.4	34.1	34.1	615.1	2460.5	658.5	2503.9
2019	9.7	9.7	33.0	33.0	614.6	2458.3	657.3	2501.0