CARBON FOOTPRINT 2020



www.byldis.com

Byldis Prefab BV	- Location -	Locht 126(A) Veldhoven
Byldis Engineering BV		Locht 126 Veldhoven
Byldis International BV		Locht 126 Veldhoven
Byldis Prefab BV	- Location -	Ledeboerstraat 38 Tilburg
Byldis Facades BV	- Location -	De Run 4225 Veldhoven

- Reporting period : 01 August 2019 to 31 July 2020 -

07-12-2020

Index

1	Preface
2	Approach and demarcation
3	Carbon footprint
4	Direct CO ₂ emissions
5	Indirect CO emissions
6	Other Indirect CO₂emission
7	Substantiation
8	Comparison with previous years
I	Appendix entered data Scope 1 24
II	Appendix entered data Scope 2 and Other Scope 2
III	Appendix Verification statement Kiwa – Byldis BV 2020
IV-a	Annex ISO 14001 27
IV-b	Appendix BES 6001
V	Appendix Electricity
VI	Appendix Gas

1 preface

Byldis BV considers its core activities to be selling, developing, producing, supplying and assembling wind and watertight buildings. These buildings are composed of supporting structures of concrete, usually combined with architectural elements such as brick, natural stone and/or decorative concrete. In addition to these core activities, Byldis BV completes these activities at the request of the customer with the development, delivery and assembly of the required steel structures & glazed aluminum fronts and facades.

Until 07-07-2017 we were part of the Hurks concern. On 06-04-2018 our name was changed to the new name Byldis BV and the organization has been adapted to the international ambitions. The 'Integral Projects & Design' department was set up for this purpose and now consists of Business Development Managers, Tender Managers and Integral Project Managers.

Orders in Germany and Scandinavia open up a new sales area and caused

in combination with the increase in assembly projects in the Netherlands, an increase in business transport. The workforce of the Engineering, R&D, Purchasing and MarCom departments has also been expanded in the past period, resulting in adjustments to the offices and furnishing. Our investor Opportunity Partners took over all shares of co-investor HB Capital in 2019 and helped make this transition possible.

Byldis BV is included in this report in the composition below.

<u>Byldis BV (H</u>ICS) is located in the head office at location Locht 126 in Veldhoven.

<u>Byldis International BV In addition</u> to the sales market in the Benelux, the international sales area in the UK has been further expanded in the past period and Scandinavia has been added to this. As a result, Byldis DK ApS was established alongside Byldis UK Ltd. The Business Development managers take care of their sales activities through the head office in Veldhoven, and are included as such in this report.

<u>Byldis Engineering BV develops</u> all activities for the design and engineering of these structures in concrete and steel, the research and feasibility of prefabrication as well as the supervision of the construction projects. The office of Byldis Engineering is located in the head office Locht 126 in Velhoven and is included as such in this report.

<u>Byldis Prefab BV has</u> a concrete factory at location Locht 126 with a (robotic) braiding plant at location 126A in Veldhoven and another concrete factory at location Ledeboerstraat 38 in Tilburg.

<u>Byldis Facades BV prov</u>ides the engineering, production and assembly of aluminum doors, frames and curtain walls at location De Run 4225 in Veldhoven.

the CO₂ emission reporting was drawn up and verified for the first time in 2012. At the time, this report was limited to the current head office, including the Engineering department, with its concrete factory and braiding facility at Locht 126 & 126A in Veldhoven. In the CO₂ emission report of 2016, the concrete factory on location Tilburg was added to this for the first time after a dormant period of 2 years (Jan. 2014 - Dec. 2015).

Byldis Facades BV has been included in this Carbon Footprint since the reporting period 2018.

The above history has a major influence on the figures and graphs presented in this report. It is important to clearly display these entries in order to be able to make a correct comparison.

Environment

The spearheads of the environmental policy of Byldis BV are based on the inventory and evaluation of our environmental aspects. Based on this, we aim to reduce our CO₂ emissions, managing environmental risks within the Byldis BV sites and during the execution of the relevant construction projects.

We carry the ISO 14001 and BES 6001 certificate: see Appendix IV.

Historical base year

Byldis BV produces CO₂ Footprint and Waste registered and reported.

In 2009 and 2010, various large-scale renovations were carried out on the Veldhoven site, with the eventual realization of a 3,200 m² factory expansion for supporting services such as a bench shop, spray booth, carpentry department, technical service with storage and assembly canopy. In 2010, an additional production hall (6) and a modern robotics workshop on Locht 126A were taken into use. In the same period, investments were made in additional overhead cranes, the refurbishment of bag fields and the internal road network. In 2011, the extension of the polishing line in hall 5 for two new polishing machines was completed. This work generated such disruptive measurement data that **2012 as**

reference year has been used, on the basis of which the increase or decrease in CO₂-emission by Byldis BV is determined.

Reported Period and Verification.

The data entered for this CO₂ emissions of Byldis BV have been measured over the period from August 1, 2019 to July 31, 2020. This reporting period has been used since 2012 to prevent a shared winter period from having a disruptive effect.

may have in comparison with previous years. In 2020, a number of CO₂₋

emission standards changed. These have been incorporated retroactively in the comparative figures.

The underlying administration was submitted to Kiwa for verification on 7 December 2020. The Verification Statement provided is included in Annex III.

Reporting organization

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Rapporteurs

JEM Jansen (Comb coordinator) JPJ van der Linden (administrator)

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2 Approach and definition

2.1 Approach

Direct CO emissions

- Fuel consumption heating and production	scope 1
- Fuel consumption internal transport/ transport to construction site	scope 1
- Fuel consumption for business transport (company cars, lease cars)	scope 1
Indirect CO emişsions	
- Electricity usage	scope 2
- Purchased cold and heat	scope 2
Other indirect CO emissions	
- Fuel consumption for business with private car	Other Scope 2
- Fuel consumption business air travel	Other Scope 2

Calculation model Concrete house

To determine the Carbon Footprint, data has been collected on all CO₂ related emissions (excluding coolants). Based on this data, the

amounts of CO₂ emissions determined using the recognized calculation tool made available by the Betonhuis industry association from which this report was generated. Emission factors used are displayed on the website *www.co2emissie Factors.nl*.

See also the 'Handbook CO₂-performance ladder' *version 3.1 (June 01, 2020).* All data has been collected per location and then aggregated. Information at branch level can be found in the appendices.

The results in the following chapters relate to the total of Byldis BV.

Leakage of refrigerant gases and F-gases

In 2019/2020, no refrigerants were used for the climate systems, as far as known to the Head of Technical Service, in accordance with statements regarding suppliers of the office installations. There were no emissions from other cooling systems during this period as a result of the refrigerants and SF6 gas.

CO emissions from combustion of biomass

The combustion of biomass did not take place within Byldis BV. We do supply raw materials for this (recycling waste wood).

Explanation of omitted CO sources or sinks

All identified sources and sinks of CO₂ are accounted for in the report. Binding of CO₂ does not take place, so there are no sinks.

CO compensation

There is no compensation of CO . within the company boundaries of Byldis BV₂ emissions. For the environmentally conscious purchasing of electricity and gas supplies, Byldis BV has concluded contracts with Scholt Energy Control until 2023. For electricity, the contracts are based on 100% WaarborgWind with Certificate of Origin + SMK quality mark; see contract QNL020344 (Byldis Prefab & Facades) in Appendix V.

The contracts for gas supplies to Byldis BV have been concluded on the basis of Waarborggas; see the contracts QNL020348 (Prefab Veldhoven + Tilburg), QNL020347 (weaving factory) and QNL020343 (Facades). In the past period, 150,000 m₃ purchased biogas; demonstrable with Vertogas certificates based on the fermentation of maize, grains, vegetable oils, (pig) manure.... See annexes VI.

Influence of measurement inaccuracies and uncertainties within scope 1 & 2

The vast majority of CO₂ emissions are caused by the fuel consumption of stationary combustion equipment (central heating & steam boilers) for heating and production (47%), fuel consumption for business transport (33%)+ business air travel (7%).

<u>Registration gas consumption</u>; Byldis BV has again purchased Vertogas certificates during this reported period. In July 2020, the certificate accounts of Byldis BV

150,000m₃ biogas based on co-digestion is written off. The CO2 emission reduction achieved as a result has been deducted in the reporting pro rata gas consumption per operating company.

The registration of the total CO₂ emission of Byldis BV is not affected by this.

<u>Registration of business transport and air travel; Byld</u>is BV is increasingly acting internationally. A large part (48%) of the CO₂ emissions of Byldis BV are caused by the weekly air and car traffic for the supervision of the UK, DE, DK and SW projects by our BDM's, Project Engineers, Project Managers, Executives and Supervisors. In 2019, these departments were expanded to further develop activities with tangible assignments such as Umeus in Denmark and ESS-Lund in Sweden.

From Q2-2020, a strong reduction in air travel has started as a result of the Corona pandemic. These trips are partly completed by train and boat trips and of course the digital consultation has also made a positive contribution. In addition, business transport by car has risen sharply due to the increase in Dutch and Belgian projects in the past period, as a result of which employees of the assembly and project organization of Byldis were deployed more often on national soil.

All air travel of Byldis Prefab & Facades, including the flights for the sales activities, are organized and registered from the head office in Veldhoven. This also applies to the use of lease cars and registration of business kilometers driven.

The registration of the total CO₂ emission of Byldis BV is not affected by this.

For each subject, the elaboration indicates the source on which this data is based and can be traced.

There are no uncertainties that we have to take into account when drawing up this Carbon Footprint. The measurement data used are considered sufficiently reliable.

2.2 demarcation

Organizational boundaries

We have defined the organizational boundaries in accordance with the 'operational control' method specified in ISO 14064-1 and the Green House Gas protocol, which means that the CO is responsible for all activities for which Byldis BV has operational control.² production are included.

The reporting year for the CO_2 emission inventory is 2020, with the period from 01 August 2019 to 31 July 2020 being used.

Byldis Facades BV does not produce concrete. Therefore, it is not representative to calculate the CO₂ to express emissions of the total group in grams of CO₂/m₃ concrete. Instead, are since 2018 the m2 floor area per location stated in the table.

Table 2.1. Description organization

no. Co	ompany name	FTE	m ₂ floor surface	m 3 concrete
1	Byldis Prefab BV location Veldhoven * 1 Byldis	299	21,944	11.253
2	Prefab BV location Tilburg Byldis Facades BV	64	7.310	10,989
3	location Veldhoven	68	5.787	0
Total		431	35.041	22.242

** 1: As described in more detail in the introduction, 'HICS', Byldis Engineering BV and Byldis International BV are included in the CO2 issue of Byldis Prefab BV location Veldhoven.*

Each location has its own production method with a coordinated factory & office environment. The above data shows that the relationship between employees / m2 of floor space per location is proportional in a rough average of 1 Fte / 80 m2. This excludes the storage area and covered canopies; these are not heated and are seen as outdoor areas.

The reporting year for the CO emissions inventory is 2020.

Note:

To compare the buildings per company, it should be noted that the 6 factory halls of *Prefab in Veldhoven* are in open communication with each other. The large sliding doors of each hall are open for most of the day in the non-insulated rear wall and this production environment cannot be spatially heated during the winter period. Every mold bottom in this production environment is provided with fin heating, which can be heated with hot steam by means of separate pipes. The daily production is always covered with tarpaulins to be able to retain the added heat, which is necessary to start the chemical reaction of the cement in order to achieve sufficient hardening of the concrete. The (gas) infrared radiators are also used for this. Prefab in Veldhoven is the only one within Byldis that has two steam boilers at its disposal. The offices themselves are heated with central heating systems.

In the past period, the lighting with gas combustion lamps has been replaced by LED lamps in all factory halls of the concrete factory and weaver's shop. Offices, blasting cabin, carpentry workshop and the outside area have also recently been fitted with LED lighting. There are also 10 electric charging stations available on this company site

Photo Byldis Prefab location Veldhoven



<u>Byldis Prefab in Tilburg has 3 production halls (7, 8 and 9) which are equipped with factory doors with</u> lockable top flaps and wicket doors in the rear wall. This factory building is closed for most of the day during the winter and is heated to 15°C with gas heaters, unlike Veldhoven. The production office is located in the factory hall and is heated separately with a central heating system. The warehouse, support services and the separate loading shed are heated by gas heaters. The 2 gas heaters in production hall 9 have recently been renewed and electric motors of the extraction installation MMH, the compressor motor and all travel motors of gantry cranes PT2 and PT3 in the bag field have been replaced by frequency-controlled electric motors. The single-walled glass light panels have been replaced in all production halls by double-walled plastic skylights.

Photo Byldis Prefab location Tilburg



The building of *Byldis <u>Facades in Veldhoven* is insulated and can be kept closed during the whole day.</u> Internal transport from the production environment to the outside is minimal. This business premises is rented from the company Scherpenhuizen, which previously used these halls as vegetable & fruit storage and as such extra insulated. The offices are indoor, 'up to date', and are heated by a central heating system. The production halls and warehouses are heated with separate gas heaters. In 2018, this heating installation was expanded again with 2 new gas heaters and a fresh air installation for the increase in floor space and personnel. A new canopy was also realized at the time for the interim storage of supplied materials. This covered area is not recorded as floor area in this report; is lit but not heated.

Various improvements have been made at this location with regard to LED lighting in offices, production halls and outdoor lighting. The internal transport is carried out by 2 electric forklifts and an electric stacker. Hardly any welding is performed at Byldis Facades BV; there is a single welding workplace for this for small-scale repair work.



Photo Byldis Facades in Veldhoven

3 Carbon footprint

The total CO emissions (in tons/year) has been calculated for the mentioned sources of CO emissions 2 and is shown in Table 3.1. and in figure 3.1. The sources that do not contribute to the total CO emissions are not included in this. The distribution of scope 1 and scope 2 emissions is shown in table 3.2 and in figure 3.2.

CO₂ emission Торіс scope % in tons per year Direct CO emișsions Fuel consumption heating and production 1 410.9 45.7% 1 67.3 Fuel consumption internal transport/ 7.5% transport to construction site Fuel consumption for business transport 1 313.8 34.9% (company cars, lease cars) Indirect CO emissions 2 2 0.0 0.0 Electricity usage Other indirect CO emissions 2 Fuel consumption for business with private car 36.3 4.0% 2 70.6 7.9% Fuel consumption business air travel Total 898.9





Table 3.2. CO emissions per scope in tons per year

scope	CO emissions in tons per	%
	year	
Scope 1 emission	792.0	88.1%
Scope 2 emission	106.9	11.9%
Total	898.9	



scope 1

Direct CO emissions

- Fuel consumption heating and production
- Fuel consumption internal transport/ transport to construction site
- Fuel consumption for business transport (company vans, lease cars)

scope 2 Indirect CO emissions

- Electricity usage
- Purchased cold and heat
- Fuel consumption for business with private car
- Fuel consumption business air travel

Table 3.3. CO emissions per company / establishment

no.	Company	CO emissions	%
		in tons per	
		year	
1	Byldis Prefab BV location Veldhoven Byldis	649.3	72.2%
2	Prefab BV location Tilburg Byldis Facades BV	117.8	13.1%
3	location Veldhoven	134.3	14.7%
Total		898.8	



Prefab Veldhoven houses all supporting activities with regard to moulds, reinforcement, work preparation, project supervision, sales, engineering, management & administration for both factory locations.

Prefab Tilburg has no office building, does not book flights and only has 2 passenger lease cars.

Facades also has its own sales up to and including project management and therefore makes various air and business car trips. Facades has 2 company vans at its disposal.

Table 3.4. CO emissions per employee, per floor area and per cubic meter

concrete.

Activity	scope	CO emission CO	emission	CO emissions
		tons/fte	kg/m ₂	kg/m₃ concrete
			floor surface	
Direct CO emissions				
Fuel consumption heating and production	1	1.0	11.7	18.5
Fuel consumption internal transport/	1	0.2	1.9	3.0
transport to construction site				
Fuel consumption for business transport	1	0.8	9.0	14.1
(company cars, lease cars) Indirect CO				
emissions 2				
Electricity usage	2	0.0	0.0	0.0
Other indirect CO emissions				
Fuel consumption for business with private	2	0.1	1.0	1.6
car				
Fuel consumption business air travel 2		0.2	2.0	3.2
Total		2.23	25.65	40.41

Fuel consumption for heating and production + internal transport & electricity are separately administered per location and entered in this calculation tool per location.

Business fuel consumption by lease cars, private cars and air travel are used by our indirect personnel for the sale, supervision and repair of our concrete products. This data is registered centrally at the head office. The kilometers driven by lease cars with a fuel card are supplied by the relevant lease company and the business kilometers with a private car are filtered from the salary administration with the km allowance. The related CO₂ emissions are charged per location.

note; CO emissions / Fte decreased by more than 7.7% in 2020 compared to that of

2019 (2.23 compared to 2.26 tons) and the emission per m2 of floor area has decreased by more than almost 1.5% (25.65 compared to 26.04 tons).

See also chapter 8: "comparison with previous years".

4 Direct CO₂ emissions

The CO emissions that fall under scope 1 are divided into various topics. These are shown separately in the tables below.

The refrigerants in cooling installations fall under scope 1. This carbon footprint does not include the effect of the release to the atmosphere of these refrigerants. It

share in the total carbon footprint of the refrigerants is negligible. The manual indicates that the effect of refrigerants is not taken into account for the time being may be left.

Table 4.1. Direct CO emissions per company / location

no.	Company	CO emissions	%
		in tons per	
		year	
1	Byldis Prefab BV location Veldhoven Byldis	553.4	69.9%
2	Prefab BV location Tilburg Byldis Facades BV	116.9	14.8%
3	location Veldhoven	131.6	15.4%
Total		792.0	

Table 4.2. Fuel consumption heating and production

no.	Fuel consumption heating and production	CO emissions	%
		in tons per	
		year	
1	natural gas	234.7	57.1%
2	Acetylene	0.0	0.0%
3	Biogas (co-fermentation)	155.9	37.9%
4	CO2 for welding	18.5	4.5%
5	Propane	1.9	0.5%
Total		410.9	

The measurement data of the fuel consumption of stationary combustion equipment for heating comes from invoices from the energy supplier and the own energy management registration systems. The measurement data for the use of other gases for production processes come from delivery data from the relevant gas supplier. These data are considered sufficiently reliable.

Table 4.3. Fuel consumption internal transport/ transport to construction site

no.	Fuel consumption internal transport/ transport to construction site	CO emissions in tons per	%
		year	
1	Diesel	61.1	90.8%
2	LPG	6.2	9.2%
Total		67.3	

The measurement data for the use of diesel come from invoices from the relevant supplier. For LPG, these come from delivery data from the relevant gas supplier. These data are considered sufficiently reliable.

no.	Fuel consumption for business transport (company cars, lease cars)	CO emissions	%
		in tons per	
		year	
1	Car - Electric - Power unknown Car - Plug-in	9.9	3.2%
2	hybrid	16.1	5.1%
3	Gasoline	121.8	38.8%
4	Diesel	165.8	52.9%
5	Train International (incl. Ferry)	0.2	0.0%
Total		313.8	

Table 4.4. Fuel consumption for business transport (company cars, lease cars, train)

The measurement data of our own vehicle fleet has been supplied to our organization by the leasing company Arval, Leaseplan and KBC. All vehicles are linked from the employee with their own fuel cards. Used liters and kilometers are registered per user.

The measurement data for the (plug-in) hybrid cars are supplied by the leasing companies in liters and kilometers. The fuel in question is deducted in categories 3 and 4 and compensated by the kilometer statement in categories 1 and 2, so that these are settled with the correct conversion factor in this tool.

The numbers of fully electric cars will increase in accordance with the stated intention in 2019 and will reach 10 units in 2020. The energy consumption is registered by New Motion per user. It has been agreed with both lease companies that the km registration for 100% electric cars will be supplied differently in the past period. At the request of Byldis, this category was added to the list in the calculation tool (conversion factor 107 grams of CO₂

per kilometre). This turned out to be unworkable given that the lease companies work with kWh KM are not specified when charging. Agreed with Betonhuis to settle this in the industry tool as 'electric power unknown'......charging on our company site is 100% wind energy, but what people charge at home or on the road is unknown.

These data are considered sufficiently reliable and are easily traceable.

5 Indirect CO₂ emission

The CO emissions that fall under scope 2 are divided into various topics.

These are shown separately in the tables below.

Table 5.1. Indirect CO	emissions per company	/ establishment

no.	Company	CO emissions	%
		in tons per	
		year	
1	Byldis Prefab BV location Veldhoven Byldis	95.8	89.7%
2	Prefab BV location Tilburg Byldis Facades BV	0.9	0.9%
3	location Veldhoven	10.1	9.4%
Total		106.8	

In Carbon footprint **version 3.1** is the conversion factor for wind power **0.0** grams of CO₂/kWh.

Table 5.2 Electricity consumption

Year	2012	2013	2014	2015	2016	2017	2018	2019	2020
Byldis Prefab BV Veldhoven Byldis	1,225,230	1,057,891	1,345,140	1.444.109	1,586,171 1,59	2,583 1,414,174	,445,499 1,411,7	24	
Prefab BV Tilburg Byldis Facades BV	780,600	718.443	199,318	166,625	387,751 530	,489 470,263 56	,266 563,150		
							200,083 216	,188 218,427	

The measurement data of the electricity consumption of Byldis BV has been collected from invoices from the electricity supplier Scholt Energy Control. The electricity consumption is linked to 5 transformer stations with their own EAN number, which can be easily traced and verifiable on the invoices for charged electricity consumption;

Byldis Prefab Tilburg: EAN096943 Byldis Prefab Veldhoven: EAN102828 + EAN332188 + EAN338159 Byldis Facades: EAN103269

These data are considered sufficiently reliable.

The power supplies in 2019-2020 fall completely into category no. 3 of the table in accordance with the following 'GuaranteeWind SMK Certificate 2020'.

Because electricity use is an environmentally harmful activity, we want to continue to provide insight into its use in order to be able to manage this. In the past period, various energy saving measures have been implemented in all branches in accordance with the planning from EED studies. Due to the increase in Fte, energy consumption -despite the implementation of saving measures- has increased and an extra shift (from 2 pm to 11 pm) in the weaver's shop has a major influence on this. As a result, the investment in LED ceiling lighting is less apparent, but it has certainly made a positive contribution.

The small differences in power consumption between 2019 and 2020 is very striking. This can be explained by the fact that the use of extra electric cars cancels out the other investments in energy measures. If Byldis had not initiated this, the fuel consumption for business transport would have been considerably higher.

The electricity consumption of Byldis Facades BV is included from October 2017. In the previous period, the building was only partially in use, so that the actual electricity consumption could not be measured representatively.

For the table and graph see next page.

Electricity usage

Year	EAN102828 (large transforme	EAN332188) (small transforme	EAN338159 r) (Braiding)	Total Veldhoven	EAN096943 (Tilburg)	EAN103269 Facades
2012	589,966	310,588	324,676	1,225,230	780,600	255,408
2013	595.803	308.955	153.133	1,057,891	718.443	262.554
2014	661.703	322.359	361.078	1,345,140	199,318	323.106
2015	716,257	334.293	393.559	1.444.109	166,625	352.449
2016	812,471	303.386	470.314	1,586,171	387.751	253.865
2017	785.004	272.311	535.268	1,592,583	530,489	206.254
2018	663,673	256,325	494.176	1,414,174	470.263	200.083
2019	673,209	239.248	533.042	1,445,499	568.266	216.188
2020	598,384	240.327	573,013	1,411,724	563.150	218,427





6 Other Indirect CO₂ emission

The CO emissions that fall under Other scope 2 are broken down into different

subjects.

These are shown separately in the tables below.

Table 6.1. Fuel consumption for business with private car

no.	Fuel consumption for business with private car	CO emissions	%
		in tons per	
		year	
1	Fuel type unknown (max 10% of total)	36.3	100.0%
Total		36.3	

The measurement data of business kilometers with private vehicles are collected on the basis of kilometers declared by the employees, which are registered in the personnel information system Afas. These data are considered sufficiently reliable.

The fuel type and engine class of the vehicles concerned are not known and are settled with the conversion factor determined for this in the Tool Betonhuis.

Table 6.2. Fuel consumption business air travel

no.	Fuel consumption business air travel	CO emissions in tons per	%
		year	
1	<700 km	68.3	99.8%
2	> 700 < 2500 km	2.2	0.2%
Total		70.6	

The air traffic measurement data was collected on the basis of the registered air journeys from the management secretariat and project management administration. These data are considered sufficiently reliable.

7 Substantiation

This Carbon Footprint has been drawn up using the digital CO calculation model of Betonhuis with manual version 3.0

In the past period, Byldis BV continued the purchase (and write-off) of Vertogas certificates on the basis of good experiences with Scholt energie in previous periods. For this, Byldis BV has had 3 accounts with GasUnie since 2018; https://nss.gasunie.nl/adfs/ls/

These certificates for 150,000m₃ bio-gas were deducted on 16 July 2020 per work location pro rata to gas consumption. In Annex VI, the withdrawal receipts and the Guarantee Gas Certificate are included as demonstrable proof.

The emission factor for biogas - approved by SKAO - was then entered into the calculation tool by Betonhuis at the request of Byldis BV. In this report, the emission factor of biogas based on 'co-fermentation' is used; after all, the mix of this biomass used was based on maize, (pig) manure and vegetable oils. The biogas consumed by Byldis BV produces 845 grams of CO_2/Nm_3 less than with regular natural gas. (Emission factor Natural gas = 1884 gr CO_2/m_3 versus Biogas co-digestion = 1039 gr CO_2/m_3). Thanks to this transaction, the CO_2 Byldis BV's emissions due to gas consumption reduced by 126.75 tons in 2020.

The (much lower) emission factor for the stated biogas based on 'landfill gas' may not be used on the basis of these certificates; this landfill gas is extracted from (household) waste storage and is mainly used for incineration in a power plant. Byldis BV consumes electricity from Windmills.

Year	m3 concrete	fte	Tons of Co2- emission total	Kg Co2 vs m3 concrete production	Tons of Co2 compared to FTE	Tons of Co2 compared to m2 floor surface	ratio of CO2 relative to historical base year 2012
2012	16,461	174	1087.1	66.04	6.25	49.54	100%
2013	15.460	168	807.7	52.24	4.81	36.81	74%
2014	14,654	177	548.2	37.41	3.10	24.98	50%
2015	17.101	192	613.2	35.86	3.19	27.94	56%
2016	21,669	258	825.9	38.11	3.20	30.11	76%
2017	24,887	295	787.1	31.63	2.67	26.91	72%
2018	18,365	359	941.7	51.28	2.62	26.87	87%
2019	20,504	404	912.4	44.50	2.26	26.04	84%
2020	22.243	431	898.9	40.41	2.09	25.65	83%

8 Comparison with previous years

Explanation of CO₂-emission in the past 8 years compared to the historical base year 2012.

Influences on gas consumption in relation to the production of heated prestressed concrete: 2012: 5.192 m³ 2013: 3,589 m³ 2014: 3,595 m³ 2015: 0 m³ 2016: 2,775 m³ 2017: 0 m³ 2018: 0 m³ 2019: 0 m³ 2020: 0 m³

Influences on gas consumption in relation to winter: the entire winter periods are included in the reporting periods and, according to KNMI source data: 2012: soft winter 2013: cold snap 2014: warm winter 2015: soft winter 2016: exceptionally mild winter 2017: soft winter 2018: pretty mild winter 2018: pretty mild winter 2019: very soft, very sunny 2020: exceptionally soft, wet and a normal amount of sun.

Influences on the business transport of Byldis BV:

2012: Veldhoven + Tilburg,

2013: reorganization of Hurks Prefabbeton,

2014: upscaling Veldhoven,

2015: the continuation of this upscaling, from October 2015 influx in Tilburg.

2016: production Tilburg and influx of indirect staff members for guidance

UK projects. Assembly in the Netherlands for 3 projects. **2017:** Increase in influx of indirect staff members; lease cars drive less, but

air travel is increasing. Business with private car decreases due to increase in lease.

2018: Byldis Facades BV for the first time in this report. As a result, increase with

15 lease cars (2 company buses). Byldis Prefab BV will take 5 extra lease cars into use during this period. Assembly in the Netherlands is nil.

- **2019:** FTE indirectly increased for sales and project management guidance. Assembly in the Netherlands is picking up again with 4 projects.
- **2020:** Various air travel replaced by car, train and ferry. Business transport by assembly employees and project bureau to projects NL increased.

Purchase electricity:

2012: gray power,

2013: 60% wind energy & 40% 'green power'

2014: 100% wind energy (with low conversion factor in calculation tool BFBN)

2015: 100% wind energy with conversion factor 0 (version 3.0).

2016: 100% wind energy with conversion factor 0 (version 3.0).

2017: 100% wind energy with conversion factor 0 (version 3.0).

2018: 100% wind energy with conversion factor 0 (version 3.0).

2019: 100% wind energy with conversion factor 0 (version 3.0).

2020: 100% wind energy with conversion factor 0 (version 3.1).

Purchase gas:

2018: Purchase Vertogas certificates; 100,000 m3 biogas (co-fermentation).
2019: Purchase Vertogas certificates; 150,000 m3 biogas (co-fermentation).
2020: Purchase Vertogas certificates; 150,000 m3 biogas (co-fermentation).

Air travel:

- 2012: international orientation sales,
- 2013: launch Precast London,

2014: sales + execution London City Island,

2015: sales + execution: 80% UK.

- **2016:** >80% UK + further intensification in project supervision regarding first completions and new orders for Royal Wharf.
- 2017: production capacity at both locations >90 % for UK projects
- **2018:** production capacity at all locations >70 % for projects UK +

orientation Scandinavia and further intensification of UK sales activities.

2019: production capacity 50% NL in combination with first order DE (Heidelberg).

In Denmark and Sweden 2 assignments are scored: Umeus Copenhagen + ESS Lund, resulting in extra air travel.

2020: Various air travel replaced by car, train and ferry. It also has

digital consultations have been introduced due to the Corona pandemic, which has more than halved emissions from air travel.



Figure 8.1 Bar chartCarbon Footprint Byldis BV 2012 to 2020

Note: Chart has been fully adapted to the CO2 emission standards 2020.

I Appendix entered data Scope 1

topic		unit	Byldis Prefab BV location Veldhoven	Byldis Prefab BV location Tilburg	Byldis Facades BV location Veldhoven
Fuel consumption internal transport/ transport to Diesel construction site		liter	14,346	4.556	0
Fuel consumption internal transport/ transport to LPG construction site		liter	3,432	0	0
Fuel consumption heating and production	natural gas	Nm3	97,334	21,431	5.781
Fuel consumption heating and production Fuel	Acetylene	kg	7	4	0
consumption heating and production Fuel	Biogas (co-fermentation)	Nm3	93,500	46,500	10,000
consumption heating and production Fuel	CO2 for welding	kg	18,447	34	18
consumption heating and production	Propane	kg	431	64	66
Fuel consumption for business transport (company cars, Ca cars, train)	r - Electric - Electricity unknown, lease	kWh	18,393	0	2.420
Fuel consumption for business transport (company cars, car cars, train)	r - plug-in hybrid lease	km	87,890	0	41,269
Fuel consumption for business transport (company cars, pe cars, train)	trol lease	liter	32.206	0	12.232
Fuel consumption for business transport (company cars, die lease cars, train)	sel	liter	28.598	4.088	18,657
Fuel consumption for business transport (company cars, tra cars, train)	in International lease	km	4.305	0	1,568

II Appendix entered data Scope 2 and Other Scope 2

topic		unit	Byldis Prefab BV location Veldhoven	Byldis Prefab BV location Tilburg	Byldis Facades BV location Veldhoven
Fuel consumption for business with private car Fu	el type unknown (max 10% of total) km		168,654	4.780	12.559
Fuel consumption for business air travel	<700 km	km	204,348	0	25.737
Fuel consumption for business air travel	> 700 < 2500 km	km	11.219	0	0
Electricity consumption	Wind power	kWh	1,411,724	563.150	218,427

III **Appendix Verification statement Kiwa – Byldis BV 2020**



Verklaring CO2-K79857/09



2021-01-18 Uitgegeven

Vervangt

Eerste uitgave 2013-12-01

CO2-K79857/08

Verificatieverklaring

CO2-emissie-inventaris 01 augustus 2019 t/m 31 juli 2020 Byldis B.V.

Inielding

Inielding Kiwa Nederland B.V. heeft in opdracht van Byldis B.V. de CO₂-emissie-inventaris van het kalenderjaar O1 augustus 2019 t/m 31 juli 2020 en zoals gerapporteerd in het document met de titel "Carbon Footprint 2020 Byldis, rapportageperiode 01-08-2018 t/m 31-07-2019 d.d. 07-12-2020" geventleerd. De gerapporteerde emissies betreffen scope 1 en scope 2 emissies zoals gedefinieerd in het handboek CO₂-Prestatieladder 3.0 van 10 juni 2015. De totale CO₂-emissie bedraagt 898,81 ton. Onze beoordeling is gericht op het verschaffen van een beperkte mate van zekerheid over de gerapporteerde CO₂-emissies van Byldis B.V. zoals bepaald in overeenstemming met de eisen uit het handboek CO₂-Prestatieladder 3.0 van 10 juni 2015 en ISO 14064-1:2012.

Verantwoordellikheden

Verantwoordeuijkneden Byldis B.V. is verantwoordeijk voor de bepaiing van haar CO₂emissie-inventaris en voor het opzetten en onderhouden van systemen voor data generatie, data aggregatie en rapportage op basis van de eisen uit ISO 14064-1:2012. Het is onze verantwoordeijkheid een onafhankelijke conclusie te formuleren over de CO₂emissie-inventaris en de daarin vermeide CO₂emissie. De verificatie van de CO₂emissie inventaris is uitgevoerd conform de eisen van ISO 14064-3:2012.

Organisatlegrens CO2 emissie-inventaris

De organisatiegrens voor de verficatie betreft. De organisatiegrens voor de verficatie betreft. De organisatiegrens is opgesteld conform methode 1 (GHG protocol) van het handboek CO₂.Prestatieladder 3.0 van 10 juni 2015. Hiermee voldoet de organisatiegrens aan ISO 14064-1 maar niet aan els 3.A.2 van het handboek waarvoor methode 2 toegepast zou moeten worden.

Beoordelingsactiviteiten: Beoordelen van de wijze waarop de CO₂-emissie-inventaris is opgezet en bijbehorende data is verzameld en bijgewerkt. Decontroller van de wijze waarop de Corgenitaale en van aan de opgezet en opjeezet en opje

Verbeteracties: Geen.

Conclusie

Conclusie Op basis van de uitgevoerde beoordelingsactiviteiten en met eventuele bovenstaande opmerking t.a.v. organisatiegrens is ons niet gebleken, dat de CO₂-emissies in de CO₂-emissie-inventaris van het kalenderjaar 01 augustus 2019 t/m 31 juli 2020 van Byldis B.V. en zoals gerapporteerd in het document met de titel "Cartoon Footprint 2020 Byldis B.V., rapportagependoe 01-08-2019 t/m 31-07-2020 d.d. 07-12-2020" conform de vereiste materialiteit niet juist zijn weergegeven.

S. Ron Scheepers, Klwa

Deze verklaring bestaat uit 1 pagina. Openbaarmaking van de verklaring is toegestaan.

Kiwa Nederland B.V. Sir Winston Churchillaan 273 Postbus 70 NL-2280 AB RUSWUK Tel. +31 88 998 44 00 Fax +31 88 998 44 20 info@kiwa.ni www.ktwa.nl

Onderneming Byldis B.V. Locht 126 Postbus 221 Tel. +31 88-1345000 info@byldis.com www.byidis.com

KVK 57189501

Organisational Boundary Holland Industrial Construction Systems Cooperatief U.A. KVK 68905238 (financièle holding) Byldis B.V. KVK 57189501 (holding/houdsteractiviteiten) NL-5504 RP VELDHOVEN Byldis Prefab B.V. KVK 53977185 (vervaardigen producten beton / uitleenbureau) Byldis Engineering B.V. KVK 33155020 (ingenieurs en overig technisch ontwerp en advies) NL-5500 AE VELDHOVEN Byldis Facades B.V. KVK 17041341 Vervaardigen van metalen constructiewerken en delen daarvan Byldis international B.V. KVK 57319456 (investment funds with restricted entry)

IV-a Annex ISO 14001



IFICAA

Certificaat MSC-K66559/06



Uitgegeven Geldig tot

2022-03-15

2019-03-15

2012-02-03 Ferste uitrave

MSC-K66559/05

ISO 14001

Kiwa heeft vastgesteld dat het door

Byldis B.V.

gehanteerde milieuzorgsysteem en de toepassing daarvan voldoen aan NEN-EN-ISO 14001:2015 voor het toepassingsgebied:

Vervangt

Byldis Engineering B.V. Het ontwerpen van geprefabriceerde bouwelementen van beton, betonproducten en wapeningsstaal.

Byldis Prefab B.V.

Het verkopen, produceren en monteren van geprefabriceerde bouwelementen van beton. Produceren en verkoop van betonproducten en wapeningsstaal.

Byldis International B.V.

Het aannemen van projecten ten behoeve van werkmaatschappijen van Byldis B.V.

the

Ronald Karel Kiwa

Ondern

Byldis B.V.

Looht 126

KVK 57189501

Dit certificaat bestaat uit 1 pagina. Law wa Openbaarmaking van het certificaat is toegestaan.

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Werkmaatschappijen ing NL-5504 RP VELDHOVEN Postbus 221 NL-5500 AE VELDHOVEN Tel. +31 88-1345000 info@byldis.com www.byidis.com

Byldis Engineering B.V. Looht 126 NL-5504 RP_VELDHOVEN KVK 33155020

Byidis International B.V. Looht 128 NL-5504 RP VELDHOVEN KVK 57319456

Byldis Prefab B.V. Locht 126 NL-5504 RP VELDHOVEN KVK 53977185

Vestiging Byldis Engineering B.V. Byldis Prefab B.V. Ledeboerstraat 38 NL-5048 AD TILBURG

SCCM Strategies

IV-b Annex BES 6001





V Appendix Electricity

SCHOLTenergy

WaarborgVertogas januari 2020 t/m december 2020

Dit certificaat is het bewijs dat een evenredig gedeelte groen gas

is gepreduceerd uit hemieuwbare energiebronnen.

Byldis B.V. Locht 126 5504 RP Veldhoven

Sold

Slebe Scholt, Chief Commercial Officer Scholt Energy Control + scholt-com

Vertogas opdrachtformulier

Klantnaam: Contractnummer(s): Byldis Prefab B.V. en Byldis B.V. C0017388 en C015876

SCHOLTenergy

				Volume	Volume	prijs	Inkoop-	prijs
Vertogas-account nr.	t.b.v.	Product	Periode	(m*)	(MWh)	€/MWh	kosten	€ct/m*
00086	Byldis Prefab BV 1e aansluitadres	Vertogas Certificaten	01-01-2020 tot 01-01-2021	46.500	454	€ 9,90	€ 4.495	9,67
00119	Byldis Prefab BV 2e aansluitadres	Vertogas Certificaten	01-01-2020 tot 01-01-2021	93.500	913	€ 9,90	€ 9.039	9,67
00120	Byldis Facades	Vertogas Certificaten	01-01-2020 tot 01-01-2021	10.000	98	€ 9,90	€ 970	9,70
Totaal				150.000	1.465	€ 9,90	€ 14.504	€ 9,67

Herkomst hernieuwbaar gas: varkensmest, mest, mengsel plantaardige oliën, mais, granen Aanbod geldig tot: donderdag 16-07-2020 15:30

Tekenbevoegde Byldis Prefab B.V. en Byldis B.V.

Naam J. Van Dyk Datum 16/07/2020 Handteken tè-

Connection address 1 = Byldis Prefab BV location Veldhoven / Locht 126 in Veldhoven:

Vertogas										
Vertogas GGC.s Groengas certificeringssysteem					pagir	a afdrukken versie: 20.05.1 production 📃 NL	🔡 UK 🝕	afmelden		
Home	Home = Handel = Certificaatrekening Eindgebruiker									
Handel » Certificaatrekening	Certificaatrekening Eindgebruiker									
Disclaimer	Excel rapport maken	(ongefilterd)								
	Filter Eindgebruiker Rekening Handelaar	Byle 000	idis Prefab BV 1e aansluitadres V 086 V							
	🧠 Filter									
C. C. S.A.	Search:									
	Serienummer	Creatie datum	Afboekdatum	Duurzame energiebron	Kenmerk	Productie-installatie	Hoeveelheid	Status		
	2019.01.116.021820	23-1-2019	21-3-2019	Overige doppen - ISCC	SDE; - ISCC	Groen Gas Oude Tonge production device	317	Afgeboekt		
	2019.01.117.021821	25-1-2019	16-7-2019	Wals - ISCC	SDE, - ISCC	Groen Gas Oude Tonge production device	157	Afgeboekt		
	2019 10 151 024013	29-10-2019	16-7-2020	Mest	SDE	Groen Gas Goor production device	165	Afgeboekt		
	2019.11.133.024244	20-11-2019	16-7-2020	Granen	SDE	Groen Gas Goor production device	285	Afgeboekt		
								-		
	1									

Connection address 2 = Byldis Prefab BV location Tilburg / Ledeboerstraat 38 in Tilburg:

Vertogas GGC.s Groengas certificeringssysteem					pagina	afdrukken versie: 20.05.1 production 📃 NL	🔡 UK 📲	əfmelden
Home Handel » Certificaatrekening	Home » Handel » Certificaa Certificaatrek	trekening Eindgebr	^{uiker} gebruiker					
Disclaimer	Eindgebruiker Rekening Handelaar	(ongefilterd)	ldis Prefab BV 2e aa 119	nsluitadres V				
	Serienummer	Creatie datum	Afboekdatum	Duurzame energiebron	Kenmerk	Productie-installatie	Hoeveelheid	Status
	2019.01.117.021823	23-1-2019	21-3-2019	Mais - ISCC	SDE; - ISCC	Groen Gas Oude Tonge production device	274	Afgeboekt
	2019.01.118.021436	23-1-2019	21-3-2019	Granen - ISCC	SDE; - ISCC	Groen Gas Oude Tonge production device	639	Afgeboekt
	2019.10.145.027026	29-10-2019	16-7-2020	Varkensmest	SDE	Groen Gas Oude Tonge production device	91	Afgeboekt
	2019.10.153.026400	29-10-2019	16-7-2020	Mengsel plantaardige oliën	SDE	Groen Gas Goor production device	118	Afgeboekt
	2019.11.132.027027	20-11-2019	16-7-2020	Mais	SDE	Groen Gas Goor production device	704	Afgeboekt
	1							

Connection address 3 = Byldis Facades BV / de Run 4225 in Veldhoven:

Vertogas											
Vertogas GGC.s Groengas certificeringssysteem					pagir	a afdrukken versie: 20.05.1 production 📃 NL	🏭 UK 🐗	afmelden			
Home	Home » Handel » Certificaa	Home » Handel » Certificaatrekening Eindgebruiker									
Handel * Certificaatrekening	Certificaatrek	Certificaatrekening Eindgebruiker									
Disclaimer	Excel rapport maken	ongefilterd)									
	Filter Eindgebruiker Rekening Handelaar	Byld 0012	s Facades BV	v v v							
	Filter Search: Serienummer	Creatie datum	Afboekdatum	Duurzame energiebron	Kenmerk	Productie-installatie	Hoeveelheid	Status			
	2018.12.62.021654	20-12-2018	21-3-2019	Suikerbereiding - ISCC	SDE; - ISCC	Groen Gas Oude Tonge production device	95	Afgeboekt			
	2019.01.116.021819	23-1-2019	21-3-2019	Overige doppen - ISCC	SDE; - ISCC	Groen Gas Oude Tonge production device	3	Afgeboekt			
	2019.10.145.027023	29-10-2019	16-7-2020	Varkensmest	SDE	Groen Gas Oude Tonge production device	98	Afgeboekt			





Byldis Prefab B.V. Contract

contract

Levering gas

QNL020347 Flexibele maandprijs gas

Byldis Prefab B.V. Contract

Levering gas

QNL020348 Combinatieprijs gas



Byldis Facades B.V.

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Contract

Levering gas

QNL020343 Flexibele jaarprijs gas