



Brett Aggregates Limited

Environmental & Sustainability Interim Report January – June 2017

(Incorporating GHG Reporting to ISO 14064-1)



Introduction

Brett Aggregates is committed to producing the most sustainable products available within each specific sector of its business and operates to BS EN ISO 9001, BS EN ISO 14001, BS OHSAS 18001 and BRE BES 6001 standards covering quality, environmental, health & safety and Environmental & Sustainability respectively.

This report also includes the mandatory reporting requirements stipulated by ISO 14064-1 'Specification with guidance at the organisation level for the quantification and reporting of greenhouse gas emissions and removals'.

The organisation also works closely with its supply chain partners to actively develop and introduce suitable management systems, certified standards and directives to enhance the built environment. Brett Aggregates is committed to continually improve its effectiveness in these areas and will continue to liaise with stakeholders and set itself meaningful and measurable objectives and targets to achieve this in line with BRE BES 6001 and BS 8902.

The natural environment is the foundation of our business, and Brett Aggregates are committed to protecting it for future generations. We see our responsibility as a balance between supplying products to meet society's needs while respecting and conserving the land.

We will continue to demonstrate our commitment to this through an ethos of supply chain management and product stewardship, together with a commitment to engage with stakeholders that may be affected by the impacts of our products.

The following data has been collated against the Sustainable Construction Forum (SCF) Key Performance Indicators (KPI's) and targets, and is compliant with the requirements of the Building Research Establishment (BRE) Environmental and Sustainability Standard BES 6001 '*Framework Standard for the Responsible Sourcing of Construction Products*'.



Managing Director*
Brett Aggregates

*And 'Responsible Person' as identified under GHG standard ISO 14064-1

Sustainability Principles	Concrete Industry Performance Indicators & Brett Specific KPI's	Unit of expression	Required link to BES 6001	MPA & Gov't 2020 Targets (with 2012 Baseline)	Brett Aggregates Base-Line Data 2017*	Target Set	Quantitative	Qualitative	Brett Aggregates Targets to 2020
Environmental Management Systems	1.1 % of production sites covered by a 'UKAS' certified EMS (such as ISO14001, EMAS and for SMEs, BS8555)	% of production sites (and absolute number compared to total)	Management systems (sections 3.3.2 & 3.4.3 of BES 6001)	<i>25% of products used in construction projects to be from schemes recognised for responsible sourcing</i>	100%	Y	Y	N/A	Maintain % of production sites certified to BS EN ISO 14001 at 100%
Waste minimisation	1.2a kg of waste to landfill as a proportion of production output (supplemented by 3. 1a-d)	kg per tonne	Waste Management (section 3.4.4 of BES 6001)	<i>Individual organisations commit to waste to landfill targets at company level</i>	0.093 kg/tonne	Y	Y	N/A	Reduce kg/tonne of waste by 10% from 2017 levels by 2020
Waste minimisation	1.2b Net waste ratio. Ratio of 'total waste product usage' to 'waste to landfill'	Ratio	Waste Management (section 3.4.4 of BES 6001)	<i>Sector resource efficiency plans prepared and implemented by trade associations.</i>	1904.22 : 1	Y	Y	N/A	-
Emissions (excluding CO ₂)	1.3 Number of convictions for air and water emissions per annum	Number per annum	Local communities (section 3.4.10 of BES 6001)	<i>Reducing the convictions for air and water emissions to zero</i>	0	Y	Y	N/A	Maintain zero convictions for air and water emissions
Stakeholder Engagement	1.4 Stakeholder engagement. <i>No Indicator – performance to be covered qualitatively</i>	n/a	Social Requirements (section 3.4 of BES 6001)	-	-	N/A	N/A	N/A	No Target
Quality & Performance	1.5 % of production sites covered by a 'UKAS' certified 9001 quality management system	% of production sites (and absolute number compared to total)	Management systems (section 3.2.3 of BES 6001)	<i>Multiple actions for "innovation" linked to the overarching target to "enhance the industry's capacity to innovate and increase the sustainability of both the construction process and it's resultant assets"</i>	100%	Y	Y	N/A	Maintain % of production sites certified to BS EN ISO 9001 at 100%
Responsible Sourcing	1.6 % of reported production certified to BES 6001	% of reported production tonnes Certified to BES 6001	Management systems (section 3.2.4 of BES 6001)		0%	Y	Y	N/A	Increase to 100% of production tonnes certified to BES 6001 at 'very good' level

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Energy & CO ₂ Emissions (Production)	2.1 Energy used in production as a proportion of production output	kWh per tonne	Energy & Greenhouse gas Emissions (sections 3.4.1 & 3.4.2 of BES 6001)	15% reduction in carbon emissions from construction processes and associated transport compared to 2008 levels. Wider UK Government target is 80% reduction by 2050 based on 1990 levels. Recent carbon budget has a target of 34% reduction by 2020 based on 1990 levels Note: Wider UK Government target is 80% reduction by 2050 based on 1990 levels. Recent carbon budget has target of 34% by 2020 based on 1990 levels	9.30 kWh/tonne	Y	Y	N/A	Reduce kWh/tonne emissions from production by 10% from 2017 levels by 2020
	2.1a Energy intensity of production output	tonnes : kWh ratio	Energy & Greenhouse gas Emissions (sections 3.4.1 & 3.4.2 of BES 6001)		1 : 9.30	Y	Y	N/A	Reduce energy intensity ratio from production by 10% from 2017 levels by 2020
	2.1b Energy intensity of production output	£turnover : kWh ratio	Energy & Greenhouse gas Emissions (sections 3.4.1 & 3.4.2 of BES 6001)		(not publicly available)	Y	Y	N/A	Reduce energy intensity ratio from production by 10% from 2017 levels by 2020
	2.2 CO ₂ emissions as a proportion of production output	kgCO ₂ per tonne	Energy & Greenhouse gas Emissions (sections 3.4.1 & 3.4.2 of BES 6001)		2.77 kgCO ₂ /tonne	Y	Y	N/A	Reduce kgCO ₂ /tonne emissions from production by 10% from 2017 levels by 2020
	2.2a GHG intensity of production output	Tonnes : kgCO ₂ Ratio	Energy & Greenhouse gas Emissions (sections 3.4.1 & 3.4.2 of BES 6001)		1 : 2.77	Y	Y	N/A	Reduce GHG intensity ratio from production by 10% from 2017 levels by 2020
	2.2b GHG intensity of production output	£turnover : kgCO ₂ Ratio	Energy & Greenhouse gas Emissions (sections 3.4.1 & 3.4.2 of BES 6001)		(not publicly available)	Y	Y	N/A	Reduce GHG intensity ratio from production by 10% from 2017 levels by 2020

Sustainability Principles	Concrete Industry Performance Indicators & Brett Specific KPI's	Unit of expression	Required link to BES 6001	MPA & Gov't 2020 Targets (with 2012 Baseline)	Brett Aggregates Base-Line Data 2017*	Target Set	Quantitative	Qualitative	Brett Aggregates Targets to 2020
CO ₂ Emissions (Transport)	2.3a Average delivery distance travelled per tonne (from factory gate to customer)	km per tonne	Transport Impacts (section 3.4.8 of BES 6001)	<p>No MPA Target</p> <p>Note: Wider UK Government target is 80% reduction by 2050 based on 1990 levels. Recent carbon budget has target of 34% by 2020 based on 1990 levels</p>	64.42 km/tonne(road) 51.83 km/tonne(rail) 64.86 km/tonne(barge) 0 km/tonne (sea)	Linked to 2.3d	N/A	N/A	Linked to 2.3d
	2.3b Tonnes moved split by modes: road, rail, inland barge, sea	Tonnes moved by each mode	Transport Impacts (section 3.4.8 of BES 6001)		1742065.88 tonnes	Linked to 2.3d	N/A	N/A	Linked to 2.3d
	2.3c Average load for each mode	Tonnes per load	Transport Impacts (section 3.4.8 of BES 6001)		19.49 t/load (road) 992.62 t/load (rail) 2653.11 t/load (barge) 0 t/load (sea)	Linked to 2.3d	N/A	N/A	Linked to 2.3d
	2.3d CO ₂ emissions as a proportion of production output (sales)	kgCO ₂ per tonne	Transport Impacts (section 3.4.8 of BES 6001)		3.22 kgCO ₂ /tonne (road) 1.49 kgCO ₂ /tonne (rail) 1.30 kgCO ₂ /tonne (barge) 2.60 kgCO ₂ /tonne (OVERALL)	Y	Y	N/A	Reduce overall kgCO ₂ /tonne by 10% from 2017 levels by 2020

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Recycling	3.1c Recycled/secondary aggregates as a proportion of total aggregates sold	%	Resource Use & Waste Management (sections 3.4.3 & 3.4.4 of BES 6001)		17.69%	Y	N/A	Y	Increase sales of recycled/secondary aggregate by 10% from 2017 levels by 2020
Water	3.2a Mains water use as a proportion of production output	Litres per tonne	Water Extraction (section 3.4.5 of BES 6001)	Reduce mains water consumption by 20% Note – reductions already made between 2012 & 2017	27.57 Litres/tonne	Y	Y	N/A	Reach optimum level of overall water usage whilst reducing mains water usage by 10% (and increasing groundwater usage accordingly) from 2017 figures by 2020
	3.2b Controlled groundwater use as a proportion of production output	Litres per tonne	Water Extraction (section 3.4.5 of BES 6001)		518.07 Litres/tonne	Y	Y	N/A	Reach optimum level of overall water usage whilst reducing mains water usage by 10% (and increasing groundwater usage accordingly) from 2017 figures by 2020
	3.2c Mains water intensity of production output	Production tonnes : Litres ratio	Water Extraction (section 3.4.5 of BES 6001)		1 : 27.57	Y	Y	N/A	Reduce 2017 ratio in-line with KPI 3.2a by 2020
	3.2d Controlled groundwater Intensity of production output	Production tonnes : Litres ratio	Water Extraction (section 3.4.5 of BES 6001)		1 : 518.07	Y	Y	N/A	Increase 2017 ratio in-line with KPI 3.2a by 2020
Site Stewardship	3.3 % of relevant production sites that have site specific action plans	% of relevant production sites (and absolute number compared to total)	Resource Use (Section 3.4.3 of BES 6001)	-	100%	N	N/A	N/A	Maintain at 100%

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Health & Safety	<p>4.1a Reportable Injuries per 100,000 direct employees</p> <p>4.1b Lost time injuries for 'direct employees' per 1 million hours worked</p>	<p>Number of reportable injuries per 100,000 direct employees And absolute number per annum</p> <p>Number of LTI's per 1 million hours worked for direct employees and absolute number per annum</p>	Management systems (section 3.3.3 of BES 6001)	Overarching zero harm expectation	<p>63.1 per 100,000 employees (1 actual)</p> <p>8.8 per 1 million hours (3 actual)</p>	Y	Y	N/A	Overarching Zero harm expectation, and continual reduction in actual number of injuries and LTIFR for 'direct employees'
Employment & Skills	<p>4.2a % of employees covered by UKAS certified ISO9001/ISO 14001/OHSAS 18001 systems (Training & competence sections)</p>	% of employees covered by UKAS ISO 9001/14001 or OHSAS 18001 systems	Employment & Skills (section 3.4.9 of BES 6001)	<p>Increasing the % of employees covered by a certified management system (e.g. ISO 9001/ISO 14001/OHSAS 18001) to 100%</p> <p>Increasing the % of employees covered by MPA Safer by competence training and qualifications to 100%</p>	100%	Y	Y	N/A	Maintain % of relevant employees covered by 'UKAS' certified ISO9001/ ISO14001 & OHSAS 18001 at 100%
	<p>4.2b % of employees covered by environmental and H&S management systems following the principles of BS EN 14001 or OHSAS 18001</p>	% of employees covered by BS EN ISO 14001 or OHSAS 18001 systems	Employment & Skills (section 3.4.9 of BES 6001)	<p>Increasing the % of employees covered by MPA Safer by competence training and qualifications to 100%</p>	100%	Y	Y	N/A	Maintain % of Relevant employees covered by BS EN ISO 14001 & OHSAS 18001 management systems at 100%

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Local Community	4.3 % of relevant production sites with community liaison activities (supplemented by 1.3 & 3.3)	% of relevant production sites	Local Communities (section 3.4.10 of BES 6001)	Maintaining the % of relevant production sites that have community liaison activities at 100%	100%	Y	Y	N/A	Maintain % of relevant production sites that have community liaison activities at 100%
	4.3a Number of community complaints (supplemented by 1.3)	Complaints per production tonne	Local Communities (section 3.4.10 of BES 6001)		Effectively 0/tonne (3 actual)	Y	Y	N/A	Overarching zero expectation with year on year reduction of 5% from 2017 to 2020
	4.3b Number of community events held or sponsored	Number of events held per year	Local Communities (section 3.4.10 of BES 6001)		5/year	Y	Y	N/A	No target
	4.3c % use of constituent materials sources within 50km of production facilities (i.e. support for local business)	%	Local Communities (section 3.4.10 of BES 6001)		100% for BAL production & recycled processing	Y	Y	N/A	Maintain minimum 100% use of constituent materials sources with 50km of production facilities subject to product technical specifications and supply availability

Notes:

This incorporates all Brett Aggregates activities.

4.3c data represents the % usage of any given source within the final product. This is to ensure that the % shown is representative of £turnover & tonnage used rather than just geographic position. i.e. A single very local constituent with a low value, purchased one per year should not adversely affect (falsely improve) the published figures, as in reality such a purchase could represent 0.001% of the constituents purchased, with large value/volume items being purchased from further afield.

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GHG ISO 14064-1 mandatory reporting requirements:

Detail of 'Boundaries'

Production of 'Aggregate'.

Direct and indirect emissions by GHG source

	2017 (Jan-June'17)
Electricity	0.97 kgCO ₂ per tonne
Gas/diesel oil – e.g. for heating (i.e. known as Red Diesel or Gas Oil)	0.02 kgCO ₂ per tonne
Recovered fuel oil/other heating oil (specify)	0 kgCO ₂ per tonne
Gas oil for mobile plant	1.76 kgCO ₂ per tonne
Mains natural gas	0 kgCO ₂ per tonne
Bottled gas	0 kgCO ₂ per tonne
Coal	0 kgCO ₂ per tonne
Biofuel	0 kgCO ₂ per tonne
Other renewable energy source	0 kgCO ₂ per tonne
Other site energy source (Bulk Gas)	0 kgCO ₂ per tonne
Gas oil for dredger	0.02 kgCO ₂ per tonne

A description of how the CO₂ from biomass fuel is treated

Not Applicable.

GHG removals

Not Applicable.

Exclusion of GHG sources and justification statement

No exclusions made within the boundaries established.

Historical base year data

The base line year is given as **2017 (interim period Jan-June'17)** unless otherwise stated.

Explanation of changes from the base year, or recalculation of data

Steady progress towards established targets has been made. Full calendar year analysis will be undertaken in Q1 of 2018 and this report re-published.

Reference to quantification methodology and factors and any changes made (this statement includes the methodology for production, client transport and constituent transport)

Methodology taken directly from ISO 14064-1, with supporting information from the Concrete Industry SCF guidance documents in combination with Defra conversion factors. Please also see overall summary notes (below).

Uncertainty statement

The organisation has undertaken an uncertainty exercise in accordance with EPA regulations. However, the data collation is verified before use, and the factors used to determine GHG are supplied by Defra, with the uncertainty values being extremely low. The level of uncertainty of the resulting estimates depends significantly on the source category and the pollutant. However, as our sources of CO₂ emissions arise from the combustion of fuel, this uncertainty is vastly reduced, as emissions can be estimated with a high degree of certainty regardless of how the fuel is used as these emissions depend almost exclusively on the carbon content of the fuel, which is generally known with a high degree of precision. The fuel used in our case is almost exclusively gas/electric, with other fuel sources as defined within the relevant SCF PI Guidance Document appendices. Hence, no organisation has determined that no further safety/variance values or factors are required in terms of onward reporting.

Verification statement, and type of verification and level of assurance achieved

CRC verification.

Overall summary notes:

Brett Aggregates has adopted the objectives and targets detailed above. Where organisation data indicates that the industry (trade association) target has been met, whilst it is desirable to surpass the aforementioned target, the requirements in terms of BES 6001 have been achieved. Revised 'organisational' targets will be discussed within the management review meetings to determine the scope for further improvement. KPI 2.3d relates to the transportation of the assessed product 'Aggregate' from the production facility to site, and the associated return journey, linked to KPI's 2.3a-c. Transport related environmental aspects and impacts have been assessed via the organisations UKAS accredited BS EN ISO 14001 certified management system, with the main contributory factors being CO₂ emissions and transport distances.

The term 'UKAS' refers to a certificate issued by a UKAS accredited certification body.

Additional transport related aspects and impacts of our business and terminology used:

Transport related environmental aspects and impacts have been assessed via the organisations UKAS accredited BS EN ISO 14001 certified management system, with the main contributory factors being CO₂ emissions, use of natural resources (i.e. fuel sources), transport distances and neighbourhood noise/disruption/congestion. The above is true of both 'customer transport' (KPI's 2.3a to 2.3d) and those given above. For 'Brett Transport' from gate to client, for road transportation, the Defra conversion factor 0.89883kgCO₂/km has been used (Table 7d 2011 as an overall average figure combining various truck modes & sizes).

As part of our policy to reduce our environment aspects and impacts associated with transport, these have been assessed via the organisations UKAS accredited BS EN ISO 14001 certified management system, examining and detailing issues pertaining to our impacts upon air, water, land, natural resources, flora, fauna and human interaction in terms of past, present and planned events under our direct control, those influenced by supplier and those influenced by customer demand.

In accordance with our transport policy, we actively seek to source constituents from local suppliers to reduce the environmental impact of our operations. However, as we do not directly control the operations of our suppliers, we are unable to monitor their direct CO₂ emissions, but can monitor our own impact on this in terms of transport distances and by efficient ordering of products in 'full loads' wherever possible.

The Methodology for calculation of all transport related KPI's is taken directly from ISO 14064-1, with supporting information from the Concrete Industry SCF guidance documents in combination with Defra conversion factors.