

**Company Name:** KBR Ltd.  
**Country:** United Kingdom  
**Reporting Period:** Jan-Dec 2019  
**Sites:** HPC/HPS (GBR11), Alfa (GBR08A), Beta (GBR08B), Swindon (GBR38)



### Methodology Overview:

System boundaries set based on the operational control approach. Scope 1, 2 and parts of Scope 3 emissions (categories 4, 5, 6, 7, 9) reported as per the UK Government's "Procurement Policy Note – Taking Account of Carbon Reduction Plans in the procurement of major government contracts". Emission factors from the following sources have been used: Global Emission Model for Integrated Systems Version (GEMIS) 4.5 and 4.95, Ecoinvent 3.7, VDA, thinkstep AG and DEFRA ("Greenhouse gas reporting: conversion factors 2020" and "Greenhouse gas reporting: conversion factors 2019").

Scope / Category	Description	Total Emissions per reporting period (tCO <sub>2</sub> e)	Primary / Secondary data ratio emission calculation approach		Comment
Scope 1	Self-generated heat/cooling	560.9	100% primary consumption data provided	Total annual fuel consumption used to calculate the associated emissions.	Natural gas reported as primary heat energy source in Leatherhead sites (GBR11, GBR08A, GBR08B)   HPC/HPS, Alfa, Beta).
	Refrigerant / cooling agent	702.9	100% primary refill data provided	Quantities of refrigerant refills used to calculate fugitive emissions associated with cooling.	Only Leatherhead data included (GBR11, GBR08A, GBR08B), no refills reported in Swindon in 2019.
	Company-controlled vehicles	13.5	100% primary consumption data provided	4 company-controlled vehicles were reported in total. Total annual fuel consumption or total annual mileage and average fuel consumption per 100km were used to calculate the associated emissions. Well-to-Wheel emissions were included.	
<b>Total Scope 1</b>		<b>1,277.3</b>			
Scope 2	purchased electricity	1,667.0	100% primary consumption data provided	As required by the Government's 'Environmental reporting guidelines', location-based approach was used to calculate Scope 2 emissions. To account for the renewable energy use, however, we have also calculated the emissions using a market-based approach in addition. The market-based emissions equal: 368.81 CO <sub>2</sub> e.	KBR has been purchasing renewable energy in all four UK sites (Leatherhead and Swindon) since April 2019.
<b>Total scope 2 (location-based)</b>		<b>1,667.0</b>			
<b>Total scope 2 (market-based)</b>		<b>368.8</b>			
Scope 3   Category 4	Upstream Transportation & Distribution	238.5	Primary data was provided for suppliers, and distance travelled. Secondary data used for mass/volume of deliveries	Distance-based method was used to calculate emissions. Minimum boundary met.	Emission factors used represent direct emissions i.e. Tank-to-Wheel. Therefore, lifecycle emissions were excluded.
Scope 3   Category 5	Waste generated in operations	0.03	100% primary data provided	Waste-type-specific method was used to calculate emissions. Minimum boundary met. Emissions from transportation of waste were included additionally.	
Scope 3   Category 6	Business Travel	11,184.2	100% primary data provided	Distance-based method was used to calculate emissions. Minimum boundary was met and lifecycle emissions were included additionally. Both flight distance (domestic, short/long haul) and class (economy, economy premium, business first) were considered.	
Scope 3   Category 7	Employee commuting	3,149.9	100% primary data provided	Average-data method was used to calculate emissions. Emissions from teleworking were excluded.	No information on teleworking was provided. We have taken the conservative assumption that all employees commuted to work on their workdays.
Scope 3   Category 9	Downstream Transportation & Distribution	0.0	None	This category relates to the downstream transportation and distribution of sold products. As a service company KBR does not transport or distribute any sold products.	
<b>Total Scope 3</b>		<b>14,572.7</b>			
<b>TOTAL</b>		<b>17,517.01</b>			

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Scope / Category	Description	Total Emissions per reporting period (tCO <sub>2</sub> e)	Primary / Secondary data ratio emission calculation approach		Comment
Scope 1	Self-generated heat/cooling	450.3	100% primary consumption data provided	Total annual fuel consumption used to calculate the associated emissions	Natural gas reported as the primary heat energy source in Leatherhead sites (GBR11, GBR08A, GBR08B   HPC/HPS, Alfa, Beta). Electricity used for heating in Swindon
	Refrigerant / cooling agent	0	100% primary refill data provided		No refrigerant refills reported in 2020
	Company-controlled vehicles	12.1	100% primary consumption data provided	3 company-controlled vehicles were reported in total. Total annual fuel consumption or total annual mileage and average fuel consumption per 100km were used to calculate the associated emissions. Well-to-Wheel emissions were considered.	
<b>Total Scope 1</b>		<b>462.5</b>			
Scope 2	purchased electricity	1,435.1	100% primary consumption data provided, primary and secondary emission factor data used	As required by the Government's 'Environmental reporting guidelines', location-based approach was used to calculate Scope 2 emissions. To account for the renewable energy use, however, we have also calculated the emissions using a market-based approach. The market-based emissions equal: 0t CO <sub>2</sub> e.	KBR has been purchasing renewable energy in all four UK sites (Leatherhead and Swindon)
<b>Total scope 2 (location-based)</b>		<b>1,435.1</b>			
<b>Total scope 2 (market-based)</b>		<b>0.0</b>			
Scope 3   Category 4	Upstream Transportation & Distribution	55.5	Primary data was provided for suppliers, and distance travelled. Secondary data used for mass/volume of deliveries	Distance-based method was used to calculate emissions. Minimum boundary met.	Emission factors used represent direct emissions i.e. Tank to Wheel. Therefore, lifecycle emissions were excluded.
Scope 3   Category 5	Waste generated in operations	0.3	100% primary data provided	Waste-type-specific method was used to calculate emissions. Minimum boundary met. Emissions from transportation of waste were included additionally.	
Scope 3   Category 6	Business Travel	2,493.0	100% primary data provided	Distance-based method was used to calculate emissions. Minimum boundary was met and lifecycle emissions were included additionally. Both flight distance (domestic, short/long haul) and class (economy, economy premium, business first) were considered.	
Scope 3   Category 7	Employee commuting	2,908.8	100% primary data provided	Average-data method used was used to calculate emissions. Emissions from teleworking were excluded.	No information on teleworking was provided. We have taken the conservative assumption that all employees commuted to work on their workdays.
Scope 3   Category 9	Downstream Transportation & Distribution	0.0	None	This category relates to the downstream transportation and distribution of sold products. As a service company KBR does not transport or distribute any sold products.	
<b>Total Scope 3</b>		<b>5,457.6</b>			
<b>TOTAL</b>		<b>7,355.16</b>			