



# Towards efficient, low carbon buildings and transport

In order to decrease the greenhouse gas emissions from its direct operations, Kingfisher works to improve the energy efficiency of its buildings and lower the impact of its transports.

<b>Starting date of the project</b>	2016/17
<b>Project Localisation</b> Places of implementation of the project at this stage and targeted geography if replicable.	UK, France, Spain, Portugal, Poland, Romania Banners are B&Q, Screwfix, Castorama and Brico Dépôt
<b>Project objectives</b> Type of climate innovation of the project with a description of the problem/issue addressed	Through various actions across its value chain, Kingfisher works to improve the energy efficiency of its buildings and lower the impact of its transport. These actions are part of the company's roadmap to reduce its absolute scope 1 and 2 greenhouse gas emissions by 37.8% by 2025 compared with a 2016/17 baseline. This target is approved by the Sciences Based Targets initiative, confirming it aligns with a 1,5°C trajectory.
<b>Detailed project description</b>	<p><b>Switching to zero carbon power</b> We buy electricity from zero carbon sources, supported by Guarantee of Origin certificates. This now covers our operations in the UK, Iberia, Poland, Romania and France – 100% of purchased electricity. We are exploring options to guarantee renewable electricity supplies over the long term such as corporate Power Purchase Agreements. We are also investing in on-site renewable generation. We've installed solar PV panels on 29 stores, offices and distribution centres, and have biomass boilers supplying two distribution centres and one head office building. We trialled a PV installation in Poland for the first time in 2021/22 and hope to complete further installations during 2022. Our investments in renewable energy are generating 9.5 million kWh per year and delivering over £1.3 million in financial benefit per year.</p> <p><b>Investing in energy efficiency</b> During 2021/22, we invested £19.6 million in energy efficiency projects including the installation of LED lighting, building energy management systems and insulation and heating improvements. This will reduce consumption by 41 GWh a year, saving 3,800 tonnes of carbon a year and £4.1 million. We have a three-year energy reduction plan for each banner and are making good progress. Key actions include roll-outs of LED lighting and building energy management systems across our estate, energy efficient design blueprints for new stores, and improving building insulation. These actions have reduced our energy intensity by 6.4% since 2016/17. Total energy consumption is now 4.2% lower than in 2016/17.</p> <p><b>All electric stores</b> Our long-term goal is to switch to all electric heating for our stores. This will be key to decarbonising our stores and estate as we switch to 100% renewable power. We have installed all electric heating using air source heat pumps at 102 locations this year. All electric heating using air source heat pumps is now standard specification for new Screwfix stores. Decarbonising heating in larger stores is more challenging and we are exploring potential solutions to address this.</p> <p><b>Lower impact transport</b> We are reducing emissions from our dedicated delivery fleets by switching to more efficient and lower carbon vehicles, training drivers, improving route planning and maximising fill rates. This is essential as transport miles are increasing due to the rise in ecommerce and more click &amp; collect and home deliveries.</p> <p>B&amp;Q now has 70 HGVs using Liquefied Natural Gas (LNG), which can reduce CO2 emissions by 20% compared to diesel. It has invested in a telematics system to monitor driver performance and live route planning that is reducing mileage. In 2022, it will be trialling EV home delivery vehicles and biogas powered trucks with double decker trailers. Screwfix uses iSave, an automated driving system that can improve fuel efficiency by 10%. It has also reduced mileage by redistributing stock between its distribution centres.</p>

Main project's drivers for reducing the greenhouse gas emissions	<b>Reduction levers</b>		<b>Details on the aspects of the project</b>	
	<input checked="" type="checkbox"/> Energy and resource efficiency (including behaviour)		<p>Continuing roll-out of building management systems to better manage energy demand in the UK, Poland and France.</p> <p>Redesigning the heating systems in two large distribution centres and one head-office to provide warmth to colleagues on the packing benches more efficiently.</p>	
	<input checked="" type="checkbox"/> Energy Decarbonisation		<p>Solar PV panels on 29 stores, offices and distribution centres, biomass boilers supplying two distribution centres and one head office building, and air source heat pump systems at 102 locations.</p> <p>Source 100% of our purchased electricity from low carbon sources through Guarantee of Origins contracts in the UK, Iberia, France, Poland and Romania.</p> <p>70 trucks in it store delivery fleet running on LNG from its Swindon distribution centre and planning to test home delivery using electric vehicles.</p>	
	<input type="checkbox"/> Energy efficiency improvements			
	<input type="checkbox"/> Improving efficiency in non-energy resources			
	<input type="checkbox"/> Emissions absorption: creation of carbon sinks, negative emissions (BECCS, CCU/S, ...)			
	<input type="checkbox"/> Financing low-carbon producers or disinvestment from carbon assets			
<input type="checkbox"/> Reduction of other greenhouse gases emission				
Emission scope(s) on which the project has a significant impact and quantification of GHG emission reductions per emission scope			Aspects of the project contributing to the reduction of emissions by emission category	Quantification of associated GHG emissions by emission category  Please follow the quantification methodology used in <a href="#">the Afep guidelines</a> .
	<b>Reduction of the company's carbon dependency</b>			
	<b>Scope 1</b> <i>Direct emissions generated by the company's activity.</i>	<b>Logistics:</b> 70 trucks running on LNG in the UK and a test for home delivery through EVs.	<b>Property:</b> New heating systems and building energy management systems to better manage energy demand in the UK, Poland and France.	The total scope 1 emissions (property gas and other fuels, haulage) increased by 6.8% (+9,772 tCO <sub>2</sub> e) in 2021/22 since 2016/17 (our baseline). Our scope 1 emissions intensity has reduced by 12% (-1.57 tCO <sub>2</sub> e/£mill retail sales) since the 2016/17 baseline.
<b>Scope 2</b> <i>Indirect emissions associated with the company's electricity and heat consumption.</i>	LED lighting installations  Building energy management systems (BEMS) to better manage energy demand in the UK, Poland and France.	Solar PV panels, biomass boilers, and air source heat pump systems	The total market-based scope 2 emissions decreased by 56% since our 2016/17 baseline (-79,214 tCO <sub>2</sub> e) and 8% (-5,318 tCO <sub>2</sub> e) against 2020/21.  Annual CO <sub>2</sub> e savings from new projects installed in 2020/21: <ul style="list-style-type: none"> <li>• LED 1,643 tCO<sub>2</sub>e</li> <li>• BEMS 518 tCO<sub>2</sub>e</li> <li>• Solar PV 5 tCO<sub>2</sub>e</li> <li>• Air source heat pump replacing electric</li> </ul>	

			radiant heating, 3 tCO <sub>2</sub> e
	<b>Scope 3</b> <i>Emissions induced (upstream or downstream) by the company's activities, products and/or services in its value chain.</i>		
	Increase of carbon sinks		
	<b>Emissions Absorption</b> <i>Carbon sinks creation, (BECCS, CCU/S, ...)</i>		
	<b>GHG emissions avoided by the company at third parties</b>		
	<b>Avoided Emissions</b> <i>Emissions avoided by the activities, products and/or services in charge of the project, or by the financing of emission reduction projects.</i>		
	<p><b>Clarification on the calculation or other remarks:</b> Emissions savings for scope 1 logistics have been calculated using the annual fuel consumption figures (litres/kg) and applying DEFRA/BEIS 2020 GHG conversion factors for company reporting, then comparing against the 2021/22 total for dedicated fleet emissions. Emissions savings for scope 1 property have been calculated using annual kWh savings for heating from project installations in 2021/22 and applying DEFRA/BEIS 2020 GHG conversion factor for natural gas. Emissions savings for scope 2 have been calculated using annual kWh savings for electricity from project installations in 2020/21 and applying location-based emissions factors from DEFRA/BEIS 2020 GHG conversion factors for UK-based parts of the business and the IEA CO<sub>2</sub> Emissions from Fuel Combustion 2020 for activities in France, Spain, Portugal and Romania.</p>		
<b>Modality of verification of the quantification.</b>	<p><b>Calculation standard used (ADEME base, GHG protocol, etc.):</b> To calculate the GHG emissions, it follows the WRI/WBCSD GHG Protocol: scope 1 (direct emissions), scope 2 (energy indirect emissions) and scope 3 (other indirect emissions). Details can be found in Kingfisher's <a href="http://www.kingfisher.com/datamethodology">www.kingfisher.com/datamethodology</a>.</p> <p><b>Verification of the calculation (internal or external):</b> External verification: DNV GL provided independent assurance of the company's carbon emissions. Their assurance statement is available to download at <a href="http://www.kingfisher.com/responsible-business">www.kingfisher.com/responsible-business</a>. The purpose of the audit is to provide limited assurance over the accuracy, completeness and integrity of the sustainability data reported.</p>		
<b>Other environmental and social benefits of the project</b>	<p>By improving its energy efficiency and lowering the impact of its transports, Kingfisher's projects contribute to the following SDG:</p> <ul style="list-style-type: none"> <li>• Goal 7: Affordable and clean energy</li> <li>• Goal 11: Sustainable cities and communities</li> <li>• Goal 13: Climate Action</li> </ul>		
<b>Project maturity level</b>	<p><input type="checkbox"/> Prototype laboratory test (TRL 7)  <input type="checkbox"/> Real life testing (TRL 7-8)  <input type="checkbox"/> Pre-commercial prototype (TRL 9)  <input type="checkbox"/> Small-scale implementation  <input checked="" type="checkbox"/> Medium to large scale implementation</p> <p><b>Remarks:</b> <a href="#">click here to enter the level of maturity of the project</a></p>		
<b>Capacity and conditions of the project reproducibility, with associated climate impact mitigation potential</b>	/		
<b>Amount of investment made (in €)</b>	In 2021/22, investments in energy saving and renewable energy initiatives totalled £19.6 million across banners, this included LED and building management systems, heating system upgrades, air-source heat pump installations and a solar PV installation.		
<b>Economic profitability of the project (ROI)</b>	<p><input type="checkbox"/> ST (0-3 years)  <input type="checkbox"/> MT (4-10 years)  <input type="checkbox"/> LT (&gt; 10 years)</p> <p><b>Remarks:</b> <a href="#">click here to enter the information</a></p>		
<b>Engaged partnerships</b>	None		
<b>Open comments from the project owner</b>	Kingfisher's carbon emissions data can be found in it latest Responsible Business report and data appendix, for FY 2021/22 these are published on the July 5 <sup>th</sup> 2022 and can be accessed here:		

[www.kingfisher.com/responsible-business](http://www.kingfisher.com/responsible-business)

**More about the project**

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**Project URL links** [www.kingfisher.com/responsible-business](http://www.kingfisher.com/responsible-business)

**Illustrations of the project**

