

CLIMATE-RELATED RISKS AND THE POTENTIAL IMPACTS ON VERKOR BUSINESS ACTIVITIES

Since the beginning, sustainability is at the core of Verkor’s mission of making **Europe a key global manufacturer of low-carbon batteries** to tackle climate-related issues in the energy storage and transport sectors. As such, Verkor is *powering the way forward with sustainable batteries for a responsible energy transition* in line with its initial mission to rehumanise, decarbonise, and re-localise the battery value chain.

Verkor has thus undertaken to assess the physical climate-related risks that may arise and the consequences it may have on its activities regarding the Gigafactory in Dunkirk over the short, medium and long-terms. Three scenarios were used to assess the exposure of the Gigafactory: a low emission scenario with a stringent decline in CO2 emissions, an intermediate scenario and a worst-case scenario, which corresponds to a worst-case climate change scenario.

First, the exposure of Verkor facilities to selected hazards was determined and the vulnerability, which is the expected loss from the exposure to an event with specific intensity, was qualitatively assessed. Overall, Verkor facilities is exposed to 6 out of 11 hazards and are vulnerable to 3 hazards. Verkor is implementing mitigation measures addressing these 3 hazards. Complimentary studies had been done by local authorities that demonstrate that the land of the Project is not exposed to high risk of flooding and marine submersion.

Physical climate risks		Short-term exposure (2021-2040)	Medium-term exposure (2041-2070)	Long-term exposure (2071-2099)	Vulnerability	Description and impact on the operations
Water-related	Flooding		x	x	Yes	Flooding can damage part or all of the asset. The region of Bourbourg is highly exposed to floods. However, the land for Verkor is not located within the perimeter at high risk of flooding. Mitigation measures: There are waterways aimed at evacuating water to the North Sea in order to prevent flooding.
	Sea-level rise			x	Yes	Sea level rise can cause inundation events and partial flooding of the asset. A coastal risk prevention plan is in place. The project land is not affected by the risk of marine submersion (with and without taking into account climate change) for a centennial event.
	Drought	x	x	x	No	Drought reduces the availability of water. The Gigafactory does not use significant amount of water.
	Water stress	x	x	x	No	Water stress reflects the ratio of demand/availability of drinking water. If a drought event occurs,

						<p>it can create drastic water use conflicts and thus water shortages.</p> <p>The Gigafactory has a very low water consumption.</p> <p>Mitigation measures in place to reduce water consumption are:</p> <ul style="list-style-type: none"> - Use of rainwater for sanitary needs (and watering of green areas) - Dry coolers as a substitute for cooling towers when temperature conditions allow - Cleaning of certain ink transfer pipes by mechanical scraping and pre dry Cleaning of pumps/filters/coater heads - Recycling of condensate waste from DHU/FFU dehumidification plants - Recycling of fire hydrant and RIA test water to supply fire reserves.
Temperature-related	Changing temperature	x	x	x	No	<p>The indicator for which the exposure is « high » is « Heating Degree Days ». A decrease of Heating Degree Days can cause a decrease of the heating needs.</p> <p>The heating needs will thus decrease in the following years.</p> <p>The asset is not vulnerable to this hazard.</p>
	Temperature variability			x	Yes	<p>In terms of processes, rising temperatures could change the demand for energy and water resources for the cooling needs of the VERKOR Gigafactory. Measures are the same as for water-stress hazard.</p>