

London Could Be Getting Its First Ultra-Green, Tidal-Powered School

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London-based [Curl la Tourelle Head Architecture](#) just unveiled plans for what could become London's greenest building – a [tidal powered](#) school situated on the banks of the Thames River. The five-story building would be entirely powered by energy harvested from a series of large turbines built underneath the waterway.



According to the proposal, the school's location is key to the [tidal power](#) project. Currently, the proposed site is being used as a city trash collection center where boats pick up and transport the city's refuse to a landfill outside of the city. However, this exact site happens to be located on the narrowest section of the Thames – the point in the river with the highest velocity of tidal surge.



“As far west as Teddington, the power of the coastal tides is felt twice daily along the Thames, with a rise and fall of as much seven metres of water,” said Wayne Head, one of the studio’s two directors. “The movement of water due to tides represents an untapped source of power that it’s high time London harnessed for good,” he told [Dezeen](#).



“The site is located directly at the narrowest section of the Thames – meaning that the velocity of the tidal flow at this point will be the highest in the river. The plan is to capture this four-times daily energy through submerged tidal turbines as the primary means to supply the building with carbon neutral power.”



The proposal, which will be built to meet the Passivhaus standard as well as the BEEAM Outstanding rating, calls for using the building's natural environment of clean air and cooler temperatures to create a pleasant microclimate on the interior. The school would also be installed with a number of carbon monitoring systems that would help the occupants limit their carbon footprint as much as possible. Additionally, the various [renewable materials](#) used in the structure would be left exposed to serve as an example for future architecture projects.



Although the proposal is at its very early stages, the architect envisions the [carbon neutral project](#) as not only the city's greenest building, but also a beacon for future of [sustainable architecture](#) in the city, "The Thames Tideway School is potentially London's greenest public building," he said. "The design is conceived as an exemplar of low embodied energy and carbon construction technologies, using natural and bio-renewable materials sourced through local supply chains."

Renderings by Forbes Massie
