

band rollout – its bosses may well have to adopt this kind of thinking.

There has been plenty of focus on the cost of the project, as well as criticism from contractors about HS2 Ltd's procurement methods. Despite this, HS2 Ltd chief operating officer Richard Robinson has dismissed accusations that the project's procurement strategy is encouraging a "race to the bottom" in terms of tender prices when questioned by *New Civil Engineer*.

His comments come amid a High Court battle with contractor Bechtel which claims that HS2 Ltd accepted an "abnormally low bid" when it awarded the £1bn construction partner contract for Old Oak Common to a joint venture between Balfour Beatty Group, Vinci Construction and Systra (BBVS).

HS2 Ltd's official defence document denies "each and every allegation" in Bechtel's claim. In particular it says that there is no basis for saying that BBVS' tender was abnormally low.

While not directly referring to the High Court appeal, Robinson said that HS2 Ltd has "never" awarded a contract solely because it was the lowest bid.

"What we are looking for is the best team for the job, and that is the simple answer from a procurement standpoint. Because the best team will give us the best result, and the best result is the [bid that provides the] most value," said Robinson.

"When I look at our procurement – and I have previously been on the other side of the table bidding for things on HS2 in the past – I don't see any examples of when HS2 [Ltd] has procured simply on cost alone, that simply is not true."

And yet, with a new prime minister in the offing, HS2 in its current guise could hit the buffers if the likes of Boris Johnson or Dominic Raab enter Number 10.

That is why transport secretary Chris Grayling's announcement that new HS2 Ltd chair Allan Cook is reviewing how the project will be delivered is so intriguing.

Grayling has told *New Civil Engineer* that Cook has been taking stock of the project since he was appointed as chair in December last year.

"Allan Cook is rightly taking his first period on the project to make sure it's in good shape to make sure the budget is right, the costs are right and that it's deliverable," Grayling said. "I'm really waiting for Allan [Cook] to come back to me to say: 'this is how we're going to take the project forward'."

TRANSPORT

New Thames Crossings

TfL "cannot afford" another expensive Garden Bridge fiasco

BY ROB HORGAN

Transport for London (TfL) "cannot afford" to get the delivery of its proposed East London River Thames crossings wrong, according to London Assembly transport committee chair Florence Eshalomi.

She was speaking to *New Civil Engineer* after TfL named a consortium comprising Bam Nuttall, Ferroviol Agroman and SK Engineering & Construction as preferred bidder for the £1bn Silvertown Tunnel contract.

Eshalomi said there "cannot be another Garden Bridge" situation where public money is "wasted on vanity projects that are never delivered or even close to being delivered".

TfL has already spent \$45M developing the Silvertown Tunnel. It spent \$53M on developing the Garden Bridge pedestrian crossing of the Thames before it was scrapped.

It comes as the Silvertown Tunnel and the proposed Rotherhithe pedestrian and cycling bridge come under growing scrutiny.

The London Assembly transport committee and the London Chamber of Commerce & Industry have both expressed their concerns after TfL pushed the opening date of the Silvertown road tunnel back to 2025 when it announced its contractors.

Eshalomi said that how and when TfL begins paying for the tunnel must be closely monitored.

"It is our understanding that TfL will only start paying for the tunnel once it's completed and operational, however, the transport committee needs to keep a close eye on progress with this project and we will be asking questions every step of the way," she said.

She added that in the wake of "the C word [Crossrail]", she would "rather" TfL didn't commit itself to an opening date only to push it back later on down the line.

Further along the Thames, the proposed pedestrian and cycle crossings between Canary Wharf and Rotherhithe



Proposed Thames Barrier Crossing

is already starting to ring alarm bells.

TfL investment delivery planning director David Hughes told a London Assembly budget and performance committee meeting that the public consultation – originally scheduled for April – was being put off while TfL determines whether the bridge can be delivered within the £330M funding package.

If the crossing is deemed too expensive, then Thames Clipper – alongside marine engineer Beckett Rankine – is understood to be waiting in the wings to submit its solar-powered, electric ferry service as an alternative.

New Civil Engineer understands that once TfL puts its bridge proposal out to public consultation, Thames Clipper will formally unveil its ferry service at 10% of the bridge's estimated cost.

Beckett Rankine is also working on another Thames crossing. As revealed by *New Civil Engineer* online, the London-based firm has drawn up a proposal for a pedestrian and cycle bridge alongside the Thames Barrier.

The proposal combines four lifting sections, each spanning 61m. Each can be individually opened or closed to

allow river traffic to pass.

Developed in partnership with architect Lifschutz Davidson Sandilands, the 530m series of long double-leaf bascule bridges has been designed as a possible replacement to the Woolwich Ferry.

The ferry service is expected to close after road bridges due to be built across the River Thames at Gallions Reach and Rotherhithe are complete. The Thames Barrier crossing would connect new developments in Charlton on the south bank of the Thames with the Thames Barrier park, next to the new Silvertown Quays development.

The Thames Barrier Bridge would act as a supplementary crossing to the Rotherhithe bridge, rather than an alternative.

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Number of bridges across the Thames in London

ENERGY

Back from the dead

Swansea Bay scheme revived by local supporters

BY CONNOR IBBETSON

The push to develop more marine energy capacity has gained a second wind with flagship tidal energy projects on the horizon in England and Wales, while Scotland is a hotbed of turbine innovation.

In Swansea, ambitious plans for a huge renewable energy and housing project have been proposed to combine a lagoon seawall with tidal stream turbines, and a floating island with room for 10,000 modular homes and renewable energy production facilities.

Nicknamed the "Dragon Energy Island", the £1bn proposal also includes underwater housing for data centres, a solar energy farm, and hydrogen production facilities.

The Dragon Energy Island is the spiritual successor to the £1.3bn Swansea Bay Tidal Lagoon project which stalled after the UK government backed out of the project in June 2018.

The Swansea Bay City Region claims its Dragon Energy Island proposal is 30% cheaper than the Swansea Bay Tidal Lagoon, with an estimated cost of just under £1bn. But the costs do not include the housing or underwater data centres, which could be privately funded.

An independent report has concluded that the Dragon Energy Island plans are viable, and highlights various funding avenues, including backing from the Welsh Government and private investors.

Construction could start as soon as 2021, and the Dragon Energy Island could be operational by the end of 2026.

Elsewhere, on the banks of the Mersey, Liverpool City Region Combined Authority is preparing to submit its outline business case for the Mersey Tidal Power project.

A team led by Arup including marine consultants ABPmer and planning specialists BECG is developing the outline business case for the project, after receiving funding to carry out early investigation work last year.

The 1GW tidal barrage project would

be capable of generating enough energy for 1M homes, or four times the power of all the wind turbines off the coast of Liverpool combined, which generate a collective 270MW.

The outline business case will provide the Combined Authority with a detailed and robust technical, financial and environmental evaluation of the viability of a Mersey Tidal Power project, to consider progressing to the next stage, and is expected to be completed in the next 12 months.

Meanwhile, Scotland is to get the most powerful tidal stream turbine in the world.

The 2MW AR2000 is being developed by SIMEC Atlantis Energy in partnership with General Electric.

Standing 25m in height from the seabed and weighing 150t, the AR2000's has rotors 20m in diameter that turn between six and 14 times a minute.

The partnership will also be key to the second phase of the MeyGen Project, known as Project Stroma. This will connect two additional Atlantis AR2000 turbines via a new subsea hub to a single power export cable which will then be connected to the National Grid via the MeyGen substation.

Scotland already leads the world in tidal energy capacity, alone accounting for a third of Europe's operational tidal capacity.



The original Swansea Barrage design