

Green Evaluation

Bazalgette Finance PLC (Tideway) £75 Million Green Notes

Transaction Overview

In September 2019, Bazalgette Tunnel Ltd. issued £75 million of fixed-rate senior secured green notes due September 2041. We expect Bazalgette Tunnel Ltd. will use the proceeds to design, build, commission, and maintain the Thames Tideway Tunnel (TTT) in London. In our opinion, this transaction is aligned with the Green Bond Principles 2018 (GBP). The green notes were issued outside Bazalgette Finance PLC's £10 billion multicurrency bonds program established in May 2016.

Entity: Bazalgette Finance PLC
Subsector: N.A.
Location (HQ): U.K.
Financing value: £75 million
Amount evaluated: 100%
Evaluation date: Sept. 11, 2019
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Green Evaluation Overview

Transaction's Transparency

- Use of proceeds reporting
- Reporting comprehensiveness

88

Transaction's Governance

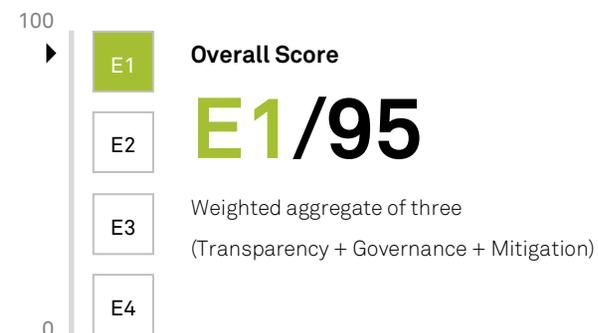
- Management of proceeds
- Impact assessment structure

93

Mitigation

Sector	→ Net Benefit Ranking	→ Hierarchy Adjustments	
Water	Increasing availability of fresh water	Water	97

Adaptation **NA**



Project Description

The construction of the TTT is part of the broader London Tideway Improvements (LTI) plan. This plan includes the construction of the 25-kilometer (16-mile) TTT, the construction of the Lee Tunnel to connect the TTT to the Beckton wastewater treatment works, and the upgrade of five sewage treatment works: Mogden, Crossness, Beckton, Riverside, and Long Reach.

The LTI plan is part of the U.K.'s efforts to comply with the 1991 EU Urban Waste Water Treatment Directive, of which it was found in breach by the European Court of Justice in 2012. The plan aims to manage the amount of sewage discharged in the river Thames and the growth in water and sewerage demand associated with London's growing population, to 9.9 million by 2030 and 10.9 million by 2050 from approximately 8.8 million people in 2016, according to the Greater London Authority. It was also designed to ensure the resilience of the infrastructure to changing weather patterns associated with climate change, in particular warmer and wetter winters that are likely to result in more frequent combined sewer overflows (CSOs).

The TTT is the component of the LTI plan delivered by Bazalgette Tunnel Ltd. The construction of the tunnel aims to increase sewage storage capacity and reduce the amount of CSOs discharged into the Thames. The installation will capture 15.5 million cubic meters of untreated wastewater annually and reduce over 90% of the typical CSOs discharge in conjunction with the other infrastructure of the LTI plan. Wastewater will be redirected to the Beckton sewage treatment works where it will be treated. Furthermore, 40% of the works' power requirements will come from methane recovery. Our Green Evaluation includes the positive environmental impact from the increase of available fresh water in the tidal Thames from wastewater treatment as well as carbon savings. Other positive environmental impacts of the TTT currently outside the scope of our Green Evaluation include reducing water pollution and supporting local biodiversity.

Bazalgette Tunnel Ltd. has assessed the resilience of the new sewage system to population growth and climate change by 2080, including to the impact of changing rainfall patterns, CSO spills, and water quality. The assessment is based on population projections from the Greater London Authority, and the high, medium, and low emissions scenarios from the U.K. Climate Change Projections 2009.

Scoring Summary

This transaction received an overall score of 95 out of 100, equivalent to an E1, the highest Green Evaluation score on our scale (E4 is the lowest). We determined the E1/95 score by taking a weighted aggregate of the subscores derived from our review of the project's very strong Transparency (88) and excellent Governance (93) as well as an excellent environmental impact and resultant Mitigation score (97). The project's favorable environmental impact in our view and its Tier 1 position at the top of our water sector hierarchy also contribute to the overall score. In our opinion, this transaction is aligned with the Green Bond Principles 2018 (GBP).

Rationale

- The excellent Governance score (93) reflects the pure play and regulated nature of Bazalgette Tunnel Ltd. as sole owner of the TTT. The company has been set up solely to "design, build, own, maintain, and finance" the TTT and operates under a specific regulatory framework, which supports high scores for the management of proceeds and evaluation of the project's environmental impact.
- The very strong Transparency score (88) reflects the disclosure requirements set by the regulators. This includes annual reporting on the project's performance as well as comprehensive assessment of the environmental impacts associated with the construction and operational phases of the project.
- The excellent Mitigation score (97) reflects our view that system enhancement projects such as this one increase the availability of fresh water in the tidal Thames for general purposes and do not result in a significant byproduct with a negative water impact.

Key Strengths And Weaknesses

We expect proceeds of Bazalgette Finance's notes to be allocated exclusively through Bazalgette Tunnel Ltd. to the TTT project. In our view, water-related mitigation projects focus on using water resources and networks more efficiently and improving the quality of water treatment for various end uses and the environment. The key environmental impact of Bazalgette Tunnel Ltd.'s debt-financing program is improved water treatment compared with a baseline scenario. Importantly, the majority of projects in this sector incorporate regional water stress, which is a relative measure of supply and demand for potable water uses. Water stress is different from scarcity and can be high in places that are wet but where demand is high, and it can be low in places that are dry but where there is little or no demand. We rank the water stress for London as high due to the city's high population density, exposure to changing weather patterns, and strict regulation on water withdrawals. This results in a net benefit ranking of 89. The medium-high carbon intensity of the U.K. also factors into our evaluation of the power generation component of the Beckton sewage treatment works, which is being supplied with wastewater by the TTT. These factors, when combined with the large systemwide nature of the project and its position at the top end of our water sustainability hierarchy, results in a final Mitigation score of 97.

The excellent Governance score reflects the pure play and regulated nature of Bazalgette Tunnel Ltd. The company operates under a specific regulatory framework defined by the Department for Environment, Food and Rural Affairs, the Water Services Regulation Authority, and the Environment Agency. Under this framework, proceeds raised by Bazalgette Finance are ring-fenced for the design, construction, and operation of the TTT, supporting a high score on the management of proceeds. In addition, the development consent order (DCO) requires the company to monitor and measure the environmental impacts of the project during the construction and operational phases on key indicators. These key indicators will reflect the project's "legacy commitment" of reducing the amount of discharge and increasing the amount of treated wastewater in conjunction with the Lee Tunnel and the Beckton Sewage Treatment works. The project's performance on these indicators will be overseen by the regulators as well as an independent technical assessor over the delivery phase of the project.

The very strong Transparency score is also supported by the regulated nature of Bazalgette Tunnel Ltd. The company is required to disclose extensive information regarding the use of its proceeds given that it is only permitted to undertake the construction and operation of the tunnel. The company has also published an environmental statement describing the project's expected environmental impacts, in accordance with the U.K. Infrastructure Planning Regulations 2009, as well as an energy and carbon footprint report. These provide a detailed assessment of the water, waste, carbon, and energy impacts of the construction and operational phases of the project. Bazalgette Tunnel Ltd. is committed to tracking and reporting environmental impacts over the delivery phase of the project, including the reduction of discharge and improvement in water quality.

Second Opinion On GBP Alignment

Based on a Transparency score of 88 and Governance score of 93, and that 100% of proceeds have or will be allocated to green projects, we expect these notes to

meet the basics of the four pillars of the voluntary GBP given the issuer has committed to:

- Allocating the full amount of the net proceeds of notes to eligible green projects – as defined by the issuer,
- Using clear “green” criteria (as defined by the issuer) to select projects for funding,
- Managing and tracking proceeds (potentially with the use of sub accounts), and
- Committing to regular reporting of environmental impact and use of proceeds.

A Green Evaluation is a point in time assessment and is not monitored.

Sector level scores

Sector	Location	Technology	Use of Proceeds (GBP mil.)	Use of Proceeds treatment	Net Benefit Ranking
Water	London, U.K.	Wastewater treatment with energy recovery	75.00	Estimated	89
			75.00		

Water

Green Evaluation Process

88

Transparency

93

Governance

97

Mitigation

Weighted aggregate of three
(Transparency + Governance + Mitigation)

E1/95

Overall Score

Technology	Baseline Water Stress	Net Benefit Ranking	Water Stress and Hierarchy Adjustment	Environmental Impact Score	Proceeds (GBP mil.)
	High  Low London, U.K.				
Recycling wastewater for water (agricultural uses)					
Recycling wastewater for water (other uses)					
Wastewater treatment with energy recovery		89	Increasing freshwater availability through system enhancements	97	75
Wastewater treatment with no energy recovery					
Unspecified					
Reducing water losses in water distribution network			Improving delivery of existing freshwater supplies		
Unspecified					
Water desalination to supply municipal water			Increasing freshwater availability with significant negative environmental impact		
Unspecified					
Conservation measure in residential buildings					
Conservation measure in commercial buildings					
Conservation measure in industrial buildings					
Smart metering in residential buildings					
Unspecified			Reducing demand on potable water supplies		

Increasing Water Sustainability

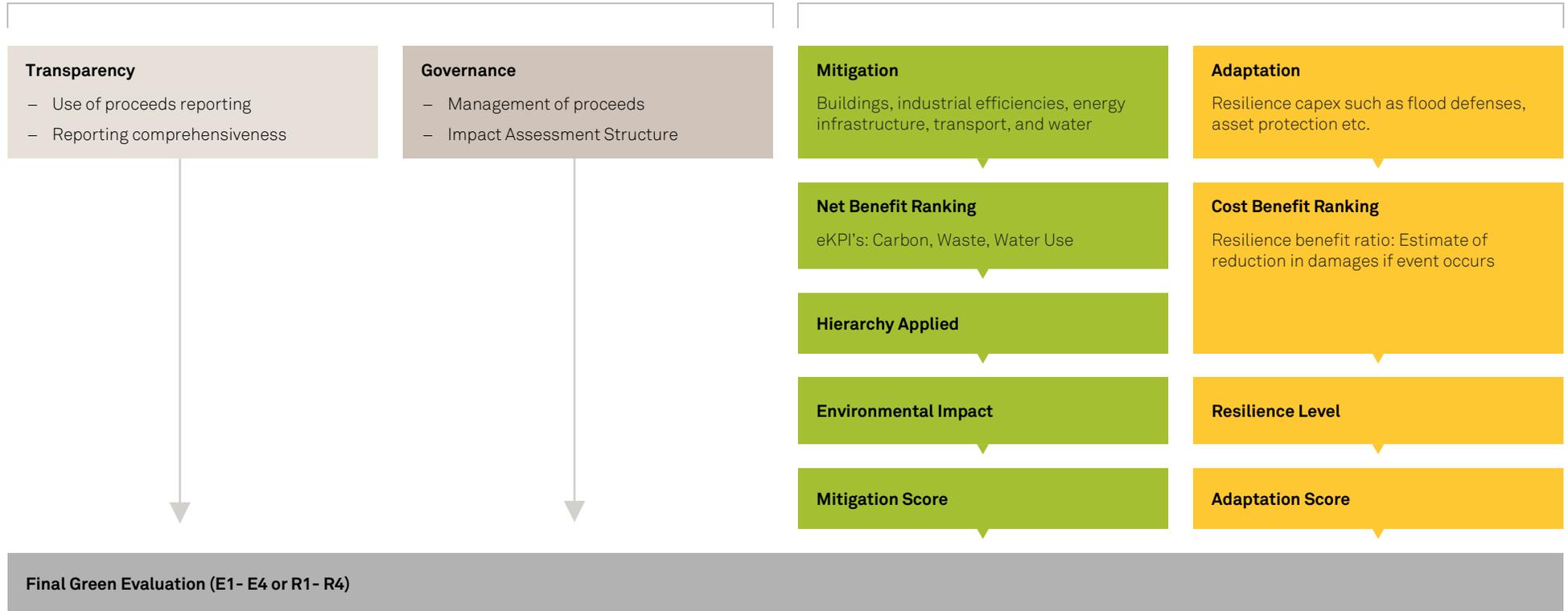
Our Green Evaluation Approach

Weighted aggregate of three:



Common approach used amongst opinion providers

Unique to S&P Global Ratings



eKPI – Environmental Key Performance Indicator

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