

Case Study: Transport for London (TfL) Green Bond

Green Bond Stats:

Issue date: April 17, 2015

Size: £400m Tenor: 10-year

Coupon: 2.125 per cent

Rating: Aa2 Moody's / AA+ S&P / AA Fitch

Underwriter: Bank of America Merrill Lynch, Deutsche Bank

Second review: DNV GL

About Transport for London

Transport for London (TfL) is a statutory body responsible for London's transport network. It implements the Mayor's transport strategy and manages transport services across

London.

In April 2015, the timing was right for TfL to jump into the green bond market, after first identifying green assets

Transport for London (TfL) embarked on their green bond journey some time before issuing its first green bond in April 2015, actively observing the rapidly expanding green bond market to see if it could be suitable for them. The Treasury team were the ones who initiated the internal process.

Emanuela Cernoia-Russo, Assistant Treasurer in TfL, explained that at those early stages, TfL was particularly interested in getting a good understanding of the types of projects and assets being financed in the green bond market to see if their transport assets fit the bill. It became clear that TfL had plenty of assets that would be considered as green by the market under the "low-carbon transport" theme, and as the green bond market continued to mature, TfL made the decision to explore how to go about issuing their own green bond.

Next hurdle of getting internal buy-in from the Board, senior management and sustainability was passed

The next step was to discuss the concept internally with the relevant parts of the organisation, such as the TfL Board, senior management and the Sustainability team to get internal buy-in, as various teams would need to work together to ensure the success of the transaction. The main driver for issuing the green bond was achieving investor diversification, particularly attracting a more geographically diverse investor base, and promoting TfL's excellent environmental performance and impressive pipeline of green assets.

Once there was internal buy-in across the board, TfL worked with its underwriter Bank of America Merrill Lynch to establish the TfL Green Bond Framework.

TfL was confident of the bond's green credentials but followed best practice with a second review from DNV GL

Being a company whose core business is to move people from high-emission cars on London's overburdened roads into low-carbon public transport, TfL was more than confident in the environmental benefits of their green bond. However, they decided to get an independent second opinion on the green credentials of the bond anyway, particularly to help anticipate and prepare for any challenging questions investors might ask. TfL chose DNV GL to provide their second review. DNV GL assessed the alignment of TfL's green bond framework with the Green Bond Principles, a set of international best practice voluntary guidelines on transparency and reporting for green bonds.



Great market demand attracted diverse investors, leading to financial benefits

At issuance, TfL's green bond was a massive success with investors. The bond was oversubscribed by 50%, with the £400m offering receiving orders for £600m. Excitingly, the green label allowed for a larger size bond issuance with a better price than TfL would have otherwise achieved, according to the head of UK capital markets at Deutsche Bank, as 69% of investment came from green funds. One of the investors in the deal was Deutsche Bank Treasury, which has made a commitment to invest EUR1bn in green bonds

Not only did the deal see a lot of investor demand, TfL also achieved its aim of geographic investor diversification, with 61% of the investor funds from the UK, 18% from continental Europe, 15% from Asia and 6% from the Middle East - that's greater international diversity than TfL generally gets. The green bond also ticked the box on promoting the environmental credentials of TfL. Overall it was a whopping success story for the company.

Tracking of green bond proceeds was new but not burdensome

Proceeds from this green bond will fund low carbon transport projects from TfL's business plan to 2021, including station and line upgrades on rail and Underground, low-emission hybrid buses and cycling improvements. Since TfL already had lots of eligible low-carbon projects planned, it was straightforward to link the proceeds to these projects. TfL's existing treasury systems and processes only needed minor adjustments to track green bond proceeds - rather than setting up new systems, it just had to make sure the managing team understood the reporting requirements of a green bond.

Reporting on green bond use of proceeds and environmental impact

To provide transparency to the green bond investors, TfL will annually report how much of the green bond proceeds has been allocated as well as a range of key performance indicators. This information will be easily accessible and published on the TfL Investor website. This reporting was an important part of the green bond issuance to get right, as most questions from investors in the lead-up to the bond issuance related to how TfL would report on the use of green bond proceeds.

TfL will also report the environmental impact of projects funded by the green bond in its annual Health, Safety and Environment report. This makes it easy for TfL, as integrating the reporting with existing processes minimises any additional transaction costs. The environmental impact reporting will however be on a TfL level basis and not single out individual projects - as TfL's projects are interrelated, it makes it difficult to attribute environmental benefits to a single project.

Potential future green bond issuance: £4bn of eligible projects in the pipeline

The TfL Green Bond Framework identified £4bn of eligible projects which would allow further issuance under the framework should TfL choose to, having an existing framework would mean any future issuance would also be an easier process than the first green bond. As with all funding decisions though, TfL commented that any decisions on whether future bond issuances would be green or vanilla would be taken individually based upon market conditions at the time amongst other factors.

TfL's success paves the way for other low-carbon transport green bonds

TfL's issuance has paved the way for other issuers to come to market with green bonds to fund low-carbon transport, especially urban rail, investments. Rail falls in line with the Climate Bonds Standard, an international standards and certification scheme overseen by investors



representing \$34 trillion that sets criteria for the green bond market. The Climate Bonds Standard offers a screening tool for investors and stakeholders, allowing them to easily be confident that the funds are being used to deliver robust climate change benefits.

The Climate Bonds Standard makes all rail investments eligible for green bond issuance, given the evidence of a much lower emissions profile compared to other modes of travel. Rail infrastructure uses approximately 11 times less energy per transported unit than road, and every dollar invested in rail infrastructure results in 3-10 times less ${\rm CO_2}$ than for the equivalent dollar spent on road.

Green bonds can fund a wide range of rail investments. According to the Climate Bonds Standard: all new rail infrastructure, infrastructure upgrades and rolling stock (including urban underground rail). The exception is infrastructure and rolling stock for railway lines that are built with the over-riding objective of transporting fossil fuels, which do not qualify under the Standard.

The Committee that has developed the Climate Bond Standard for Low Carbon Transport includes expert representatives from, amongst others, the World Resources Institute, the Transport Research Laboratory in London and the Institute for Transportation and Development Policy in Washington DC.

Thinking of issuing a low-carbon transport related green bond?

TfL has been a market leader in issuing a green bond exclusively dedicated to low-carbon transport, and is happy to share its knowledge and experience gained from its inaugural green issuance with the market. Their green bond provides an excellent example to follow for other issuers with assets in rail and other low-carbon transport areas.

Ready to start exploring issuing a low-carbon transport green bond? Get in touch with Climate Bonds Initiative to learn more.

Thanks to Assistant Treasurer, Emanuela Cernoia-Russo, at Transport for London and Ben Shelby and Martin Mills from Bank of America Merrill Lynch, for their assistance with this interview.