

Lower Thames Crossing toll charge calculations

Dartford crossing finances

From the 2023/24 accounts¹, the latest set available, there was:

- £221.458m of toll and enforcement income
- £134.9m of expenditure
- £86.7m net proceeds ('profit')

Estimating traffic flows²

Traffic through Dartford in 2023/24

To calculate the number of passenger car units (PCUs) passing through Dartford (2023/24) in a chargeable day (06:00 - 22:00) we took the halfway point between the 2016 and 2030 traffic figures as follows:

- AM peak for both (15,225) * 3hrs = 45,675 PCUs
- PM peak for both (14,070) * 3hrs = 42,210 PCUs
- Interpeak for both (13,100) * 10hrs = 131,000 PCUs

Total at Dartford in 2023/24 (06:00 – 22:00) = 218,885 PCUs

Traffic through Dartford and LTC in 2032

To calculate the number of passenger car units (PCUs) through Dartford and the LTC in 2032, the opening year, for a chargeable day (06:00 - 22:00) we took the 2030 figures and added 2/15 of the difference between the 2030 and 2045 traffic figures as follows:

- AM peak for both (13,280 + 212 + 8,040 + 120 = 21,652) * 3hrs = 64,956 PCUs
- PM peak for both (12,020 + 203 + 7,990 + 112 = 20,325) * 3hrs = 60,975 PCUs
- Interpeak for both (10,780 + 265 + 6,510 + 139 = 17,694) * 10hrs = 176,940 PCUs

Total at Dartford and LTC in 2032 (06:00 – 22:00) = 302,871 PCUs

Traffic change factor

Dividing traffic in 2032 across both crossings by traffic in 2023 at Dartford gives the **traffic change factor = 302,871 / 218,885 = 1.38**

¹ [Dartford-Thurrock River Crossing Charging Scheme Accounts 2023-2024](#), National Highways, 30 January, 2025

² Data based on traffic modelling from [Lower Thames Crossing 7.7 Combined Modelling and Appraisal Report - Appendix C - Transport Forecasting Package](#), Table 1.1, page 3, National Highways, October 2022

Costs estimates

Operational and maintenance costs

From the accounts there are annual costs of £134.9m associated with running the Dartford crossings.

Most likely all these costs would rise with the addition of the LTC: extra staff, more tolls and more write-offs, more technology and structures to maintain, etc.

Multiplying current costs by the traffic change factor gives an estimate of total operational and maintenance costs across both crossings in 2032.

Total operational and maintenance costs of both crossings = £134.9m * 1.38 = £186.2m

This is the amount that tolls will need to cover, in addition to any loan debt. This could be an underestimate as there are substantial lengths of road included in this private contract to maintain and operate. Not just the tunnels/bridge as at Dartford.

Finance costs

National Highways says that £6.3bn of private finance would be required but that would be needed in advance of the private entity receiving any toll payments, due to spending up front on construction. Therefore, there is likely to be at least £8bn of debt (that's charging 8% for three years as not all funding would be required up front) before the private entity could start receiving any income.

On that basis toll charges would need to cover interest charges on £8bn. Assuming 8% interest that would require £640m of annual interest payments.

If there was a £1.5bn increase in costs (over National Highways' projections) to £7.8bn, that would result in a £9.83bn debt (after 3 years at 8%), requiring an annual interest repayment of £786m.

If there was a £3bn increase in costs (over National Highways' projections) to £9.3bn, that would result in a £11.715bn debt (after 3 years at 8%), requiring an annual interest repayment of £937m.

Total annual costs – to finance, maintain and operate both crossings

- £6.3bn private finance results in annual costs of £640m + £186m = £826m
- £7.8bn private finance results in annual costs of £786m + £186m = £972m
- £9.3bn private finance results in annual costs of £937m + £186m = £1123m

Estimation of toll income across both crossings

From Dartford's 2023/24 accounts, total toll income was £221.458m. Multiplying that by the change in traffic (PCU levels) factor across both crossings (1.38), gives the projected income across both crossings in 2032 = $£221.458 * 1.38 = \textbf{£305.612m}$

For £6.3bn private finance (National Highways' projections accurate – unlikely)

Factor increase in toll income required = $£826\text{m (required annual income)} / £305.612\text{m (projected annual income from combined tolls)} = 2.7$

Applying that factor to all tolls:

- Toll for private car (no pre-paid account) = $£2.50 * 2.7 * 1.2 \text{ (VAT)} = \textbf{£8.10}$
- Toll for HGV on account reclaiming VAT = $£5.19 * 2.7 = \textbf{£14.01}$

For £7.8bn private finance, a £1.5bn rise in core costs (very likely)

Factor increase in toll income required = $£972\text{m} / £305.612\text{m} = 3.18$

Applying that factor to all tolls:

- Toll for private car (no pre-paid account) = $£2.50 * 3.18 * 1.2 = \textbf{£9.54}$
- Toll for HGV on account reclaiming VAT = $£5.19 * 3.18 = \textbf{£16.50}$

For £9.3bn private finance, a £3bn rise in core costs (very possible)

Factor increase in toll income required = $£1123\text{m} / £305.612\text{m} = 3.67$

Applying that factor to all tolls:

- Toll for private car (no pre-paid account) = $£2.50 * 3.67 * 1.2 = \textbf{£11.01}$
- Toll for HGV on account reclaiming VAT = $£5.19 * 3.67 = \textbf{£19.05}$

Other factors:

1. Includes no profit for the private company
2. The £90m annual surplus (from Dartford) would be lost to the public purse
3. Not including costs of running the regulator
4. Not including £4bn of public money for other schemes in addition to £1.9bn of capital to enable private finance model

Current Dartford toll charges and discounts

You must pay the charge if you use the Dartford Crossing between 6am and 10pm. Charges apply every day - including weekends and bank holidays.

How much you pay to cross depends on the type of vehicle you're driving and whether you:

- make a one-off payment without an account
- have a pay as you go account
- have a pre-pay account

Cars and motorcycles

	Vehicle class	One-off payment	Pay as you go	Pre-pay
Motorcycles, mopeds and quad bikes	A	Free	Free	Free
Cars (including trailers), motorhomes and any minibuses that have 9 or less seats (including the driver's seat)	B	£2.50	£2.50	£2.00

Buses, coaches, vans and other goods vehicles

	Vehicle class	One-off payment	Pay as you go	Pre-pay
Vehicles with 2 axles	C	£3.00	£3.00	£2.63
Vehicles with more than 2 axles	D	£6.00	£6.00	£5.19

Count droppable axles whether they're up or down. Only count trailer axles for articulated vehicles.

If you're disabled

You do not need to pay the charge if you get free UK vehicle tax because of a disability. Your vehicle will be checked automatically when you cross - you do not need to do anything.

Local resident discount

You can apply for a discount if you live in the council boundaries of Dartford or Thurrock.
You can [find out which is your local council](#).

You can pay an annual fee of either:

- £20 a year to use the Dartford Crossing as many times as you want
- £10 a year for 50 crossings

If you're on the £10 plan and you run out of crossings you can either pay:

- £5 for 25 additional crossings
- £10 to upgrade to the £20 plan and get unlimited crossings

The total amount you pay in a year will not be more than £20.