

# Post-implementation review of ‘Free-Flow’ Road User Charging at the Dartford-Thurrock River Crossing

Department for Transport

RPC rating: **fit for purpose**

## Description of proposal

The policy under review implements a “free flow” charging scheme at the Dartford-Thurrock River Crossing (which forms part of the M25). The scheme’s objectives were to:

- Reduce journey times by improving traffic flows at the crossing; and
- Continue to collect road user charges, so as to maintain cashflows to the Highways Agency (now Highways England).

## Impacts of proposal

1. The main monetised impacts of the proposal, as originally envisaged were:
  - **Costs to government** of installing, maintaining and renewing the infrastructure needed to support the scheme (estimated at £78.6 million in one-off installation charges and £6 million per annum in recurrent maintenance and renewal charges);
  - **Costs to government** of managing payments and enforcing charges where necessary (estimated at £14.9 million per annum);
  - Additional **costs to users of the crossing** from charges as a result of increased use of the crossing driven by improved traffic flows (estimated at £4.5 million per annum);
  - **Costs to users of the crossing** as a result of incorrectly issued penalty charge notices (estimated at £0.2 million per annum); and
  - **Costs to society** of increased carbon emissions driven by improved traffic flows and consequent increases in traffic (estimated at £0.4 million per annum);
  - **Benefits to society** as a result of reduced journey times and more efficient use of vehicles, including consequential changes to journeys taken on other roads (estimated at £111.1 million per annum);
  - **Benefits to society** as a result of improved reliability of journeys, including consequential changes to journeys taken on other roads (estimated at £2.6 million per annum);

- **Benefits to society** as a result of reductions in accidents, mainly around the charging plaza (estimated at £0.3 million per annum);
  - **Benefits to government** of an increase in revenues from the scheme and of increases in fuel duty revenues (estimated at £15 million per annum).
2. The Department also envisaged non-monetised benefits as a result of improvements to the townscape in the local area, in particular the replacement of some areas of tarmac with grass and plants.
  3. The evidence presented in the PIR suggests that these costs and benefits have largely been realised as expected; the Department notes that reductions in journey times over the evaluation period have been lower than predicted in the original impact assessment, which it attributes in part to interactions with roadworks, and that increases in predicted revenues have been higher than predicted.
  4. The Department also explains that it has not been able to evaluate the actual impacts of the scheme on accidents (because it has only one year of post-scheme accident data at the time of the evaluation, which is not sufficient to allow it to draw conclusions), or on carbon emissions (because it does not have data on types of vehicles). It expects that changes to carbon emissions will be broadly in line with those predicted, as changes to traffic flows are in line with predictions.
  5. The Department notes two sets of unintended consequences:
    - interactions with roadworks on the M25, which led to delays and decreases in journey reliability for users of the northbound tunnels; and
    - problems with the charging systems, which led to difficulty in paying for some users and to higher rates of incorrect issue of penalty notices than the Department had expected.

It believes that both of these have now been addressed, in the first case because the roadworks are complete, and in the second because the systems have been amended and the Department has run an awareness campaign to draw attention to different payment channels.

6. The Department notes that respondents to its survey expressed concerns about the levels at which penalty charges were set, and about the possibility that foreign nationals might evade penalty charges more readily than UK nationals. It states that it has now employed a European debt collection agency to facilitate collection of charges from EU nationals.

## Quality of submission

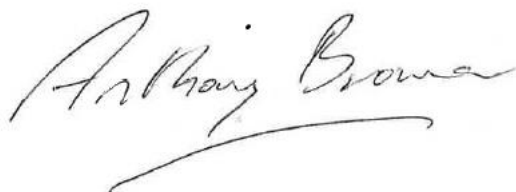
7. This was a high impact measure (with a monetised NPV of over £1.6 billion), and the Department has accordingly taken a high evidence approach to evaluating its impacts. The evaluation presented in the PIR was planned and data collection designed during the appraisal process, and was delivered by Highways England as part of a broader programme of evaluations. Highways England plans to continue to collect data and to evaluate the longer-term development of the scheme. It would be in line with the best practice observed elsewhere in the PIR for the Department to make a clear commitment to a further review at an appropriate time, and the RPC recommends that it do so.
8. As a result of the timely planning of the evaluation, Highways England has been able to set an appropriate baseline, and to collect data both before and during the implementation of the scheme. The RPC is pleased to see this best-practice approach to monitoring and evaluation.
9. The approach taken is a before and after evaluation, as the specificity of the scheme makes approaches such as modelled counterfactuals, staged roll-outs or area comparisons difficult. Where possible, the Department tries to correct for confounding effects; for example, it compares results for different periods of the implementation to try to isolate the effects of road works, and compares actual traffic flows to flows forecast in the absence of the changes. Some of its revised estimates of outcomes are modelled based on actual data for traffic flows. However, it notes that isolating the effect of the regulation from the effect of the infrastructure changes delivered to put the regulation into practice is problematic; in practice, the changes are treated as a package throughout much of the PIR.
10. The data collected include:
  - Routine traffic data from Highways England's database of traffic count sites;
  - Additional traffic data collected both by Highways England and by the operator in the immediate area of the crossing;
  - Data on charges and penalty charges collected, including breakdowns by nationality and by different payment channels;
  - Customer service metrics including complaints data;
  - Accident data for the area around the crossing;
  - Surveys of local businesses and users of the scheme (which had low response rates).
  - Petitions and unsolicited representations, mainly around flows in the northbound tunnel during the period of the roadworks and around the level of penalty charges.

11. Overall, the Department presents appropriate and proportionate evidence in support of its decision to retain the scheme with some changes to implementation to address concerns raised by users. The weakest element of the evidence base is the Department’s assessment of views from local residents and businesses and from users of the scheme. The Department notes that this analysis is based largely on a survey whose responses offered a small and unrepresentative sample. This could have been improved by widening the initial sampling frame to cover users of the scheme and local businesses other than those who followed the DartCharge Twitter account – for example by engaging with local chambers of commerce, business associations, or residents’ groups. Given the scale of the measure, it might also have been proportionate to run focus groups or “town hall” meetings in the local area. The Department has, however, made good use of other sources of evidence as to local feeling (including petitions and direct representations) to bolster its understanding of stakeholders’ views.
12. The original measure was out of scope of One In Two Out (which was the relevant framework at the time of the intervention) and so the original IA did not include an EANDCB figure (though it did include an NPV and business NPV). The present PIR includes revised forecasts of some impacts.

Departmental recommendation	Retain, with some small changes to implementation.
Estimated equivalent annual net cost to business (EANCB)	Not provided – original scheme was out of scope of One In Two Out.

### RPC assessment

Is the evidence in the PIR sufficiently robust to support the departmental recommendation?	Yes
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**Anthony Browne, Chair**