

# Local Highways Maintenance Challenge Fund



Department  
for Transport

## Application Form

The level of information provided should be proportionate to the size and complexity of the scheme proposed. As a guide, for a small scheme we would suggest around 10 to 15 pages including annexes would be appropriate and for a larger scheme, 15 to 30 pages.

**A separate application form should be completed for each scheme up to a maximum of one large bid and one small bid for each local highway authority.**

### Applicant Information

**Local authority name(s)\*:** West Berkshire Council

*\*If the bid is a joint proposal, please enter the names of all participating local authorities and specify the lead authority*

**Bid Manager Name and position:** Nick Dale, Project Engineer (Electrical)

*Name and position of officer with day to day responsibility for delivering the proposed scheme.*

**Contact telephone number:** 01635 519882    **Email address:** ndale@westberks.gov.uk

**Postal address:** West Berkshire Council  
Market Street  
Newbury  
Berkshire  
RG14 5LD

When authorities submit a bid for funding to the Department, as part of the Government's commitment to greater openness in the public sector under the Freedom of Information Act 2000 and the Environmental Information Regulations 2004, they must also publish a version excluding any commercially sensitive information on their own website within two working days of submitting the final bid to the Department. The Department reserves the right to deem the business case as non-compliant if this is not adhered to.

**Please specify the weblink where this bid will be published:**

<http://info.westberks.gov.uk/index.aspx?articleid=27889>

## **SECTION A - Scheme description and funding profile**

**A1. Scheme name:** LED Street Lighting – Invest to Save

**A2. Headline description:**

Please enter a brief description of the proposed scheme (in no more than 50 words)

**To reduce energy usage and ongoing maintenance costs by replacing approximately 10,850 council owned highway street lighting lanterns with dimmable LED energy efficient lanterns. To reduce the risk to the public of column failure by replacing approximately 3,431 ageing columns with new aluminium columns suitable for LED lanterns.**

**A3. Geographical area:**

Please provide a short description of area covered by the bid (in no more than 50 words)

**The project will cover all street lit areas on the public highway within West Berkshire which are the responsibility of the authority.**

OS Grid Reference: **447073, 166800**

Postcode: **RG14 5LD**

Please append a map showing the location (and route) of the proposed scheme, existing transport infrastructure and other points of particular interest to the bid e.g. development sites, areas of existing employment, constraints etc.

**Please refer to Appendix 1**

**A4. Type of bid (please tick relevant box):**

**Small project bids** (requiring DfT funding of between £5m and £20m)

Major maintenance, strengthening or renewal of bridges, tunnels, retaining walls or other structures

Major maintenance or renewal of carriageways (roads)

Major maintenance or renewal of footways or cycleways

Major maintenance or renewal of drainage assets

Upgrade of Street Lighting

**Large project bids** (requiring DfT funding of between £20m plus)

Major maintenance, strengthening or renewal of bridges, tunnels, retaining walls or other structures

Major maintenance or renewal of carriageways (roads)

Major maintenance or renewal of footways or cycleways

Major maintenance or renewal of drainage assets

Upgrade of Street Lighting

#### **A5. Equality Analysis**

Has any Equality Analysis been undertaken in line with the Equality Duty?  Yes  No

## **SECTION B – The Business Case**

### **B1. The Scheme – Summary/History (Maximum 200 words)**

Please select what the scheme is trying to achieve (this will need to be supported by short evidence in the Business Case).

**To provide uniform LED “white” lighting across the District leading to: improved lighting levels generally; reduced light pollution; improvements in road safety; improvements in CCTV surveillance; benefits towards reducing anti-social behaviours and fear of crime; improvements in general wellbeing with potential increased use of outdoor evening activities in open spaces and around the highway network; potential enhancement of town’s night time economy, improved safety for cyclists, reductions in the region of 54% of street lighting energy and carbon consumption and reduction in cyclic street lighting maintenance costs.**

### **B2. The Strategic Case (Maximum 650 words)**

This section should set out the rationale for making the investment and evidence of the existing transport problems, set out the history of the asset and why it is needed to be repaired or renewed. It should also include how it fits into the overall asset management strategy for the authority.

In particular please provide evidence on the relevant questions/issues at paragraph 15 onwards of the accompanying Challenge Fund guidance.

Supporting evidence may be provided in annexes – if clearly referenced in the strategic case. This may be used to assist in judging the strength of your strategic case arguments but is unlikely to be reviewed in detail or assessed in its own right. So you should not rely on material included only in annexes being assessed.

What are the current problems to be addressed by your scheme? (Describe any economic, environmental, social problems or opportunities which will be addressed by the scheme.

**The authority currently has an ageing and inefficient street lighting stock with circa 3500 columns and lanterns continuing well past their intended design life out of a total stock**

**of 10800 non LED lanterns. Whilst limited progress has been made installing LED lanterns to reduce energy and maintenance costs, at the current level of funding it would take around 40 years to replace existing lanterns with energy efficient LED lanterns.**

**Why the asset is in need of urgent funding?**

**In addition to delivering the benefits in B1, the current Council budgets are under severe pressure and the need to find further early savings is paramount. Furthermore, as part of the lantern replacement approximately 3500 ageing lamp columns will require replacement as they are unsuitable for the new LED lanterns.**

**What options have been considered and why have alternatives have been rejected?**

**The Council have been very prudent in managing its street lighting stock and this approach is clearly set out in our Street Lighting Lifecycle Plan (please refer to the Council's HAMP Appendix D which may be viewed on the following link:**

**<http://info.westberks.gov.uk/CHttpHandler.ashx?id=36908>**

**The Plan explains how we prioritise column replacement and how we have implemented a strategy of gradually replacing steel and concrete columns with extruded aluminium on the basis of minimising whole life cost. The Council has set aside an annual investment of £100,000 in its Capital Programme in each of the past 5 years to enable the existing lighting to be replaced with more modern and energy efficient LED lanterns.**

**The Council Plan includes a target of 15% of our street lights to be converted to LED by the end of 2014/15 which we are on track to achieve. There is currently insufficient funding to fully modernise the street lighting stock, hence this invest to save proposal with the Council funding 30% of the cost.**

**The Council have considered funding options for modernising its lighting stock including an Energy Saving Performance Agreement with Anesco, a loan from the Green Investment Bank as well as more conventional borrowing from the Public Works Loan Board. The method offering the best value for money for the Council appears to be a loan from either the Green Investment Bank or the Public Works Loan Board, however, Members have concerns regarding a long term arrangement given the uncertainty over future energy prices. No options have been rejected at this present time.**

**What are the expected benefits / outcomes?**

**Maintaining the status quo funding position would result in the following outcomes at the 25 year payback period:**

**Fitting of 6250 LED's out of 10,800 lanterns  
Installation of 2035 columns out of a total of 3500 in need of replacement  
Reduction in energy consumption/carbon circa 1,602Mwh and 866 tonnes respectively.**

**An invest to save scheme over the same 25 year period would result in the following:**

**Fitting of 10,800 LED's out of 10,800 lanterns  
Installation of 3500 columns out of a total of 3500 in need of replacement  
Reduction in energy consumption/carbon circa 2804Mwh and 1516 tonnes respectively.**

**With remote monitoring and dimming, a saving of circa 54%.**

**We also anticipate: improved light quality, reduced light pollution, improved public amenity and improved road safety making the night time environment feel a safer place to be.**

Please provide information on the geographical areas that will benefit from your scheme. You should indicate those areas that will directly benefit, areas that will indirectly benefit and those areas that will be impacted adversely.

**With the exception of areas lit by heritage style lighting, all of West Berkshire's highway network will benefit from improved street lighting. Please refer to Appendix 1 for the areas that will benefit from the scheme.**

What will happen if funding for this scheme is not secured - would an alternative (lower cost) solution be implemented (if yes, please describe this alternative and how it differs from the proposed scheme)?

**The Council is committed to reducing its energy consumption. If funding is not secured through the Challenge Fund then the Council would consider the alternative options described which may include maintaining the current funding arrangement.**

What is the impact of the scheme?

**In addition to the significant energy reduction, the most immediate and highly visible impact will be improved lighting and reduced light pollution through the installation of highly controlled optics using LED lanterns and a Central Management System (CMS). The CMS will also provide automatic fault reports to the Council resulting in faster response and repair times and potentially fewer complaints.**

### **B3. The Financial Case – Project Costs**

Before preparing a scheme proposal for submission, bid promoters should ensure they understand the financial implications of developing the scheme (including any implications for future resource spend and ongoing costs relating to maintaining and operating the asset), and the need to secure and underwrite any necessary funding outside the Department's maximum contribution.

Please complete the following tables. **Figures should be entered in £000s (i.e. £10,000 = 10).**

**Table A: Funding profile (Nominal terms)**

<b>£000s</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>Total</b>
<i>DfT Funding Sought</i>	3,041	2,028	0	5,069
<i>LA Contribution</i>	1,303	869	0	2,172
<i>Other Third Party Funding</i>	0	0	0	0

**Notes:**

- 1) Department for Transport funding must not go beyond 2017-18 financial year.
- 2) A minimum local contribution of 10% (local authority and/or third party) of the project costs is required.

#### **B4. The Financial Case - Local Contribution / Third Party Funding**

Please provide information on the following points (where applicable):

- a) The non-DfT contribution may include funding from organisations other than the scheme promoter. Please provide details of all non-DfT funding contributions to the scheme costs. This should include evidence to show how any third party contributions are being secured, the level of commitment and when they will become available.

**We are seeking 70% DfT funding with the remaining 30% funded by the local authority either through the Green Investment Bank or the Public Works Loan Board.**

- b) Where the contribution is from external sources, please provide a letter confirming the body's commitment to contribute to the cost of the scheme. The Department is unlikely to fund any scheme where significant financial contributions from other sources have not been secured or appear to be at risk.

Have you appended a letter(s) to support this case?       Yes       No       N/A

**Please refer to Appendix 6**

- c) Please list any other funding applications you have made for this scheme or variants thereof and the outcome of these applications, including any reasons for rejection.

**The Council have not made any funding applications for this project, however, informal meetings have been held with representatives of Anesco and the Green Investment Bank to discuss options and payment mechanisms. None of these options have been rejected to date.**

#### **B5. The Financial Case – Affordability and Financial Risk (maximum 300 words)**

This section should provide a narrative setting out how you will mitigate any financial risks associated with the scheme (you should refer to the Risk Register – see Section B10).

*Please ensure that in the risk register that you have not included any risks associated with ongoing operational costs and have used the P50 value.*

Please provide evidence on the following points (where applicable):

- a) What risk allowance has been applied to the project cost?

**A total of £55k/annum has been included in the project cost to mitigate against risks. Refer also to the Risk Register (please refer to Appendix 2).**

- b) How will cost overruns be dealt with?

**It is anticipated that any cost overruns are unlikely, however, if they do occur they will be managed within the Highway and Transport capital programme.**

- c) What are the main risks to project delivery timescales and what impact this will have on cost?

**As shown in the attached Risk Register, the main risks are as follows:**

**Inadequate supply of LED lanterns due to changes in market demand**  
**Insufficient Client resource**  
**Insufficient Contractor resource**  
**Completed scheme does not achieve project objectives**  
**Unforeseen site conditions**

**B6. The Economic Case – Value for Money**

- a) **If available for smaller scheme bids, promoters should provide an estimate of the Benefit Cost Ratio (BCR) of the scheme.**
- b) **For larger schemes costing £20 million or more we would expect the bid to include a BCR and this should align with WebTAG - <https://www.gov.uk/transport-analysis-guidance-webtag>**

Where a BCR is provided please provide separate reporting in the form of an Annex to the bid to enable scrutiny of the data and assumptions used in deriving that BCR. This should include:

- A description of the key risks and uncertainties in the data and assumptions and the impact these have on the BCR;
- Key assumptions including (but not limited to): detail of the data used to support the analysis, appraisal period, forecast years, level of optimism bias applied; and
- A description of the modelling approach used to forecast the impact of the scheme and evidence to demonstrate that it is fit-for-purpose.

**c) Please provide the following data which may form a key part of our assessment:**  
 Note this material should be provided even if a BCR estimate has been supplied (unless already covered in a VfM Annex).

A description of the do-minimum situation (i.e. what would happen without Challenge Fund investment).	<b>If the bid is unsuccessful then the authority would continue to install LED lanterns at current capital expenditure levels.</b>
Details of significant monetised and non-monetised costs and benefits of the scheme (quantified where possible)	<ul style="list-style-type: none"> <li>- <b>Reduction in energy consumption of 2804Mwh</b></li> <li>- <b>Carbon reduction saving of 1516 tonnes</b></li> <li>- <b>Improved uniform LED “white” lighting</b></li> <li>- <b>Reduced light pollution</b></li> <li>- <b>Improvements in road safety</b></li> <li>- <b>Improvements in CCTV surveillance</b></li> <li>- <b>Benefits towards reducing anti-social behaviors and fear of crime</b></li> <li>- <b>Potential increased use of outdoor evening activities</b></li> <li>- <b>Potential enhancement of town’s night time economy</b></li> <li>- <b>Potential reduction in cyclic street lighting maintenance costs from late 2016.</b></li> </ul>
Length of scheme (km)	<b>Approximately 550km</b>
Number of vehicles on affected section (AADT in vehicles and if possible split by vehicle type) – to include details of data (age etc.) supporting this estimate.	<b>Not relevant</b>

**d) Other VfM information where relevant - depending on type of scheme bid:**

Details of required restrictions/closures if funding not provided (e.g. type of restrictions; timing/duration of restrictions; etc.)	Not relevant
Length of any diversion route, if closure is required (over and above existing route) (km)	Not relevant
Regularity/duration of closures due to flooding: (e.g. number of closures per year; average length of closure (hrs); etc.)	Not relevant
Number and severity of accidents: both for the do minimum and the forecast impact of the scheme (e.g. existing number of accidents and/or accident rate; forecast number of accidents and or accident rate with and without the scheme)	Not relevant
Number of existing cyclists; forecasts of cycling usage with and without the scheme (and if available length of journey)	Not relevant

### **B7. The Commercial Case (maximum 300 words)**

This section should set out the procurement strategy that will be used to select a contractor and, importantly for this fund, set out the timescales involved in the procurement process to show that delivery can proceed quickly.

What is the preferred procurement route for the scheme? For example, if it is proposed to use existing framework agreements or contracts, the contract must be appropriate in terms of scale and scope.

**In early 2014, the Council considered joint procurement with the other 5 Berkshire Unitary Authorities. During the course of discussions, it was established that the preferred procurement timeline within some of the authorities did not align with this Council's objective to make savings at the earliest opportunity. As a consequence, the preferred procurement route is to utilise the Council's existing Highways and Electrical Term Contracts (2006-2016) which combined currently delivers an annual spend of approximately £9m. Further information is provided in B8 below.**

**The Term Contractor, Volker Highways, are very experienced in this type of work and have expert local knowledge. Working in close collaboration with the bid manager, discussions have taken place with the supply chain to ensure availability of the most suitable units at the best price. This level of forward planning will ensure that a start on site is possible in the first quarter of 2015/16, hence the funding profile described in Section B3.**

*\*It is the promoting authority's responsibility to decide whether or not their scheme proposal is lawful; and the extent of any new legal powers that need to be sought. Scheme promoters should ensure that any project complies with the Public Contracts Regulations as well as European Union State Aid rules, and should be prepared to provide the Department with confirmation of this, if required. An assurance that a strategy is in place that is legally compliant is likely to achieve the best value for money outcomes is required from your Section 151 Officer below.*

### **B8. Management Case - Delivery (maximum 300 words – for b)**



Deliverability is one of the essential criteria for this Fund and as such any bid should set out any necessary statutory procedures that are needed before it can be constructed.

- a) An outline project plan (typically in Gantt chart form) with milestones should be included as an annex, covering the period from submission of the bid to scheme completion. The definition of the key milestones should be clear and explained. The critical path should be identifiable and any contingency periods, key dependencies (internal or external) should be explained.

Has a project plan been appended to your bid?

Yes

No

**Please refer to Appendix 3**

- b) Please summarise any lessons your authority has learned from the experience of delivering other DfT funded programmes (such as pinch point schemes, local majors, Local Sustainable Transport Fund, and Better Bus Areas) and what would be different on this project as a result.

**West Berkshire Council has successfully delivered Pinch Point (A4 Calcot Journey Time Improvements) and Local Sustainable Transport Fund (in partnership with Reading Borough Council) projects.**

**Successful delivery of these programmes within tight timescales demonstrates that WBC are realistic when programming the delivery and execution of complex projects.**

**The main lesson learned surrounds procurement. For example, the A4 Calcot pinch-point scheme was procured through a tender process using a NEC Contract Option B. The timescale to deliver this project was limited due to conditions placed on the funding. Going through a lengthy conventional tender route meant the contractor was only appointed relatively late on in the delivery process and opportunities for collaboration and value engineering may well have been missed. This is particularly relevant where engagement with the statutory undertakers was concerned, particularly in relation to diversions. As a result and in order to maximise and realise early savings, it is our intention to procure this project through the current term maintenance contract which is fully scoped for column and LED replacement.**

#### **B9. Management Case – Governance (maximum 300 words)**

Please name who is responsible for delivering the scheme, the roles (Project Manager, SRO etc.) and set out the responsibilities of those involved and how key decisions are/will be made. An organogram may be useful here. This may be attached as an Annex.

**The delivery team is outlined in the attached organogram (please refer to Appendix 4). The Head of Highways and Transport has overall responsibility for service delivery, supported by the Highways Manager, one of four senior managers reporting to the Head of Service.**

**Day to day management of the operation is the responsibility of the Bid Manager and his Line Manager, the Senior Lighting Engineer. These Officers work collaboratively with the Project Manager at Volker Highways and working in this way they have established an excellent track record of delivering lighting improvement schemes on time and within budget.**

Overall governance is provided by the Council's Capital Strategy Group, chaired by the Corporate Director for Environment. The Group consists of senior elected Members and senior Officers representing all 3 Directorates. In addition, a Highway Term Contract Project Board was established during 2014 to oversee the final two years of the existing Term Contract and the development of the successor arrangement, thus ensuring a smooth transition.

This Project Board will also oversee the delivery of the LED Project, if our bid is successful, whilst the Capital Strategy Group will monitor the financial situation

#### **B10. Management Case - Risk Management**

A risk register covering the top 5 (maximum) specific risks to this scheme should be attached as an annex including, if relevant and in the top 5, financial, delivery, commercial and stakeholder issues.

**Please refer to Appendix 2.**

*Please ensure that in the risk register cost that you have not included any risks associated with ongoing operational costs and have used the P50 value.*

Has a risk register been appended to your bid?

Yes

No

### **SECTION C – Monitoring, Evaluation and Benefits Realisation**

#### **C1. Benefits Realisation (maximum 250 words)**

Please provide details on the profile of benefits, and of baseline benefits and benefit ownership. This should be proportionate to the size of the proposed scheme.

**The baseline and profiled benefits in energy savings are summarised in Appendix 5. If this bid is successful, a total saving of circa £14m is expected over the 25 year period and will be to the full benefit of the Council.**

**We anticipate future maintenance savings as lamp changes and night scouting will no longer be required when we have moved to an LED lantern stock with remote monitoring via the Councils street lighting Central Management System. This will be reflected in the maintenance specification of the new term contract due to start in October 2016.**

**Improvements in road safety and the promotion of walking and cycling along our streets after dark as a result of improved white light.**

**Reduction of the impact of street lighting on the environment through a 54% reduction in carbon emissions and reduced light pollution.**

**An overall improvement in the quality of the street lighting asset by upgrading to a modern and fit for purpose lantern and column stock.**

#### **C2. Monitoring and Evaluation (maximum 250 words)**

Evaluation is an essential part of scheme development and should be considered and built into the planning of a scheme from the earliest stages. Evaluating the outcomes and impacts of schemes is important to show if a scheme has been successful.

Please set out how you plan to measure and report on the benefits identified in Section C1, alongside any other outcomes and impacts of the scheme

**Energy savings and carbon reduction will be monitored through assessment of our monthly energy bills and energy reports generated by our street lighting Central Management System. To realise the savings in the shortest possible time, changes to the LED inventory will be reported to the Distribution Network Operator and the Meter Administrator on a monthly basis.**

**Improvements in road safety will be checked by monitoring accident data on a quarterly basis.**

**Overall public satisfaction levels for street lighting will be monitored on a quarterly basis:**

- through the Council's customer services reporting system
- feed back to the Council through regular participation in the National Highways and Transport (NHT) survey.

**Improvement in quality of the asset will be monitored by measuring and comparing levels of faults on street lights and obtaining feedback from planned maintenance inspections in line with our HAMP.**

*A fuller evaluation for large schemes may also be required depending on their size and type.*

## **SECTION D: Declarations**

### **D1. Senior Responsible Owner Declaration**

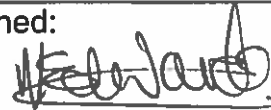
As Senior Responsible Owner for the LED Street Lighting – Invest to Save Challenge Fund Bid, I hereby submit this request for approval to DfT on behalf of West Berkshire Council and confirm that I have the necessary authority to do so.

I confirm that West Berkshire Council will have all the necessary powers in place to ensure the planned timescales in the application can be realised.

Name: **MARK EDWARDS**

Signed:

Position: **HEAD OF HIGHWAYS & TRANSPORT.**



### **D2. Section 151 Officer Declaration**

As Section 151 Officer for West Berkshire Council, I declare that the scheme cost estimates quoted in this bid are accurate to the best of my knowledge and that West Berkshire Council.

- has allocated sufficient budget to deliver this scheme on the basis of its proposed funding contribution
- will allocate sufficient staff and other necessary resources to deliver this scheme on time and on budget
- accepts responsibility for meeting any costs over and above the DfT contribution

requested, including potential cost overruns and the underwriting of any funding contributions expected from third parties

- accepts responsibility for meeting any ongoing revenue requirements in relation to the scheme
- accepts that no further increase in DfT funding will be considered beyond the maximum contribution requested
- has the necessary governance / assurance arrangements in place
- has identified a procurement strategy that is legally compliant and is likely to achieve the best value for money outcome
- will ensure that a robust and effective stakeholder and communications plan is put in place

Name:

ANDY WALKER

Signed:



### Submission of bids:

The deadline for bid submission is 5pm, **9 February 2015**

An electronic copy only of the bid including any supporting material should be submitted to:

[roadmaintenance@dft.gsi.gov.uk](mailto:roadmaintenance@dft.gsi.gov.uk) copying in [steve.berry@dft.gsi.gov.uk](mailto:steve.berry@dft.gsi.gov.uk)