

North Yorkshire County Council
Business and Environmental Services

Executive Members

6 May 2021

Submission to Department for Transport Traffic Signals Award Programme

Report of the Assistant Director – Highways and Transportation

1.0 Purpose of Report

- 1.1 This report requests the approval of the Executive Member for Access, in consultation with the Corporate Director – Business and Environmental Services (BES) to make a submission for funding from the Department for Transport’s Traffic Signals Maintenance Award programme.

2.0 Background

- 2.1 The Department for Transport has made available to all local authorities in England the opportunity to bid for additional capital funding for the maintenance of traffic signals assets.
- 2.2 There is a recognition that traffic signals equipment throughout the country is not maintained to the necessary standard through a shortfall in budgets and therefore impacting operation, efficiency and the performance of the network.
- 2.3 The purpose of making additional funds available is not only to provide support for local authorities to carry out additional necessary repairs but is also in recognition of the rapid technological development in traffic and transport management systems. In addition, there is a need to ensure traffic signals are able to cope with new integrated transport technology and connected vehicles. It is considered not appropriate simply to maintain the asset through replacing old technology with ‘new’ parts, they must be fit for the future.
- 2.4 The application is to be submitted to the DfT via Local Council Roads Innovation Group (LCRIG) and awards will be made in block allocations of £300k - £500k.
- 2.5 Officers are still working on the detail of the bid and subject to Executive Member approval, the submission will be made in time to meet the 7 May deadline.

3.0 NYCC Submission

- 3.1 The bid needs to demonstrate the County Council’s current asset management plan and prioritisation for maintenance and show how traffic signals are connected to the achievement of other strategic transport objectives and linked to wider technology, and carbon reduction strategy and polices.
- 3.2 Three key projects areas have been identified to form the basis of the funding which demonstrates the need for investment in aging assets as well as delivering technological improvements. These are;

3.2.1 Urban Traffic Control (UTC):

- a. As a busy tourist town and with high traffic, pedestrian and cyclist demand during the main season, the signals network in Scarborough would benefit from the introduction of adaptive real time plans that would take account of the prevailing traffic situation and contribute positively towards the recovery of the east coast economy.
- b. This project would include working with Siemens and relevant contractors to establish suitable plans for the area that better reflect the seasonality of traffic flows/demand on the network. To assist with staff resource, the potential exists for Siemens to be commissioned to create the plans and complete the work required to set up the system.
- c. The estimated cost of this work is £200k.

3.2.2 Major Signal Site Refurbishments:

- a. It is proposed that the additional funding would also be used to construct two major refurbishments of traffic signalised junctions in Harrogate, which would ordinarily account for a large percentage of the yearly budget (£250k). This would mean that these refurbishments could be completed without affecting the annual refurbishment programme and deliver the latest technology. These are:
 - i. Wetherby Road / Railway Road, Harrogate
 - ii. Leeds Rd / Pannal Bank / Follifoot Rad
- b. Both junctions are operating with aged equipment and technology that requires full refurbishment and upgrade improvements. As key junctions, the current performance is of some constraint to network performance and efficiency.
- c. Each site can be improved significantly not only in terms of traffic flow but also for pedestrian and cyclist facilities, particularly Railway Road that is one of the largest signalised junctions and does not have pedestrian crossing facilities. This work would also provide the opportunity for a full review and update of UTC plans to deliver further traffic control benefits.
- d. The estimated cost for both schemes is work is £200k.

3.2.3 Remote Monitoring System

- a. The objective of this improvement is to deploy across the asset, units that remotely report faults direct to the maintenance contractor (Dylniq). Currently, there are only 12 of these units installed across the county, six on junctions and the remaining six on standalone pedestrian crossings.
- b. The vast majority of traffic signals sites require faults to be identified and reported via the public or other 3rd party. By installing approximately 150 units, there would be remote reporting capability at every key junction and pedestrian crossing in the county. This would have significant benefit to both the County Council and the maintenance provider, by being instantly aware of any issues, particularly for faults at rural sites that are typically much slower in being reported.
- c. A further benefit is improved highway safety through efficient and accurate fault management, particularly concerning outlying sites and the rural nature of the roads.
- d. Consideration has been given to future maintenance costs. Given the product life expectancy and the typical trend of equipment/technology costs reducing over time, this is not considered to be prohibitive based upon existing budgets.
- e. The estimated cost of this work is £50k - £100k

4.0 Equalities Implications

4.1 There are not considered to be any equality implications arising from the proposal. See Appendix 1 Equalities Impact Assessment screening form.

5.0 Financial Implications

5.1 Should it be successful, the submission will reduce the pressure on the traffic signals capital block allocation.

5.2 Although a successful application would result in additional equipment installed, all of which will have a future maintenance liability, that equipment will be added to the asset inventory and included as part of the long-term traffic signals maintenance contract with Dynniq. Therefore, it should not result in any meaningful increase in annual maintenance costs. Any cost of replacement would be associated with any future refurbishment or upgrade. Typically, traffic signals equipment has an expected operational lifespan of 15 years.

5.3 There would however be additional annual costs associated with the communications links for the remote reporting units that require SIM cards or direct connection to existing BT (or other telecoms) infrastructure. Each site would accrue an annual cost of up to £100 per annum for this service, resulting in costs of £10k – 15k per annum. These costs would be covered by the annual traffic signals revenue budget which funds the current communications costs and has the capacity to absorb this additional expenditure. The service benefit of remote reporting however, would be significant, with the above costs, at least in part, could be off-set through improved fault detection, response and resolution efficiencies.

5.4 Should the application be successful, the County Council is expected to have spent the allocation in full by April 2023. Successful authorities will on award, be required to set out clear project management plans and profiled expenditure. There is no requirement for match funding or other NYCC investment as part of this bid.

5.5 The projects put forward have been estimated with the inclusion of contingency and are scalable, therefore can be delivered in full with a £500k award or as selected with a lower £300k award.

5.6 Regular updates to the DfT will be required to demonstrate progress in accordance with the project programme. Any potential risk to project delivery will be communicated direct to DfT and managed through this process. The staff time to administer this funding, if successful, is expected to be accommodated within existing staff resource for the junction refurbishment schemes and the deployment of remote monitoring units. However due to the specialist nature and scale of the UTC element, some additional resource is required to deliver this project. That cost has been accounted for in the cost estimate and would be funded from the award allocation.

6.0 Legal Implications

6.1 There are no legal implications arising from making the submission. Should the bid be successful the acceptance of the allocation will be approved through the appropriate governance process.

7.0 Climate Change Impact Assessment

7.1 There are considered to be only positive climate change impact arising from the improvement of traffic signals achieved through improved performance reducing congestion, delay and associated vehicle carbon emissions. See Appendix 2.

8.0 Recommendations

- 8.1 It is recommended that the Executive Member for Access, in consultation with the Corporate Director - BES approves that:
- i. A bid is submitted to the DfT Traffic Signals Maintenance Award for funding of the projects set out in section 3 of this report.

BARRIE MASON
Assistant Director, Highways and Transportation

Author of Report: David Kirkpatrick

Background Papers: None

<p>Initial equality impact assessment screening form (As of October 2015 this form replaces 'Record of decision not to carry out an EIA')</p> <p>This form records an equality screening process to determine the relevance of equality to a proposal, and a decision whether or not a full EIA would be appropriate or proportionate.</p>			
Directorate		Business and Environmental Services	
Service area		Highways and Transportation	
Proposal being screened		Bid for funding from the DfT Traffic Signals Maintenance Award	
Officer(s) carrying out screening		David Kirkpatrick	
What are you proposing to do?		Make a submission for funding to the DfT Traffic Signals Maintenance Award to secure capital investment for improvement to the county councils traffic signals asset	
Why are you proposing this? What are the desired outcomes?		This is an excellent opportunity to secure up to 500k of capital investment for the traffic signals asset. This additional funding will allow the county council to make significant improvements to key junctions, the UTC system and remote fault monitoring. This will deliver significant improvements to the traffic management capabilities and network efficiencies.	
Does the proposal involve a significant commitment or removal of resources? Please give details.		The funding allocation will be greater than the current annual budget so any successful bid will need to be appropriately resourced and additional staff required to help deliver the projects. This is being factored into the application.	
<p>Impact on people with any of the following protected characteristics as defined by the Equality Act 2010, or NYCC's additional agreed characteristic</p> <p>As part of this assessment, please consider the following questions:</p> <ul style="list-style-type: none"> To what extent is this service used by particular groups of people with protected characteristics? Does the proposal relate to functions that previous consultation has identified as important? Do different groups have different needs or experiences in the area the proposal relates to? <p>If for any characteristic it is considered that there is likely to be a significant adverse impact or you have ticked 'Don't know/no info available', then a full EIA should be carried out where this is proportionate. You are advised to speak to your Equality rep for advice if you are in any doubt.</p>			
Protected characteristic	Yes	No	Don't know/No info available
Age		No	
Disability		No	
Sex (Gender)		No	

Race		No	
Sexual orientation		No	
Gender reassignment		No	
Religion or belief		No	
Pregnancy or maternity		No	
Marriage or civil partnership		No	
NYCC additional characteristic			
People in rural areas		No	
People on a low income		No	
Carer (unpaid family or friend)		No	
Does the proposal relate to an area where there are known inequalities/probable impacts (e.g. disabled people's access to public transport)? Please give details.	No.		
Will the proposal have a significant effect on how other organisations operate? (e.g. partners, funding criteria, etc.). Do any of these organisations support people with protected characteristics? Please explain why you have reached this conclusion.	No		
Decision (Please tick one option)	EIA not relevant or proportionate:	<input checked="" type="checkbox"/>	Continue to full EIA: <input type="checkbox"/>
Reason for decision			
Signed (Assistant Director or equivalent)	Barrie Mason		
Date	29/04/21		



Climate change impact assessment

The purpose of this assessment is to help us understand the likely impacts of our decisions on the environment of North Yorkshire and on our aspiration to achieve net carbon neutrality by 2030, or as close to that date as possible. The intention is to mitigate negative effects and identify projects which will have positive effects.

This document should be completed in consultation with the supporting guidance. The final document will be published as part of the decision making process and should be written in Plain English.

If you have any additional queries which are not covered by the guidance please email climatechange@northyorks.gov.uk

Please note: You may not need to undertake this assessment if your proposal will be subject to any of the following:

Planning Permission
Environmental Impact Assessment
Strategic Environmental Assessment

However, you will still need to summarise your findings in in the summary section of the form below.

Please contact climatechange@northyorks.gov.uk for advice.

Title of proposal	DfT Traffic Signal Maintenance Award – NYCC bid for funding
Brief description of proposal	Submission of a bid for funding to repair and upgrade traffic signals equipment
Directorate	BES
Service area	Traffic Engineering
Lead officer	David Kirkpatrick
Names and roles of other people involved in carrying out the impact assessment	
Date impact assessment started	29/04/21

Options appraisal

Were any other options considered in trying to achieve the aim of this project? If so, please give brief details and explain why alternative options were not progressed.

None

What impact will this proposal have on council budgets? Will it be cost neutral, have increased cost or reduce costs?

Please explain briefly why this will be the result, detailing estimated savings or costs where this is possible.

A successful bid will result in an award of £300 - £500k to the County Council for capital maintenance and improvement works. This will significantly ease pressure on the existing annual traffic signals maintenance budget(s)

<p>How will this proposal impact on the environment?</p> <p>N.B. There may be short term negative impact and longer term positive impact. Please include all potential impacts over the lifetime of a project and provide an explanation.</p>	<p>Positive impact (Place a X in the box below where relevant)</p>	<p>No impact (Place a X in the box below where relevant)</p>	<p>Negative impact (Place a X in the box below where relevant)</p>	<p>Explain why will it have this effect and over what timescale?</p> <p>Where possible/relevant please include:</p> <ul style="list-style-type: none"> • Changes over and above business as usual • Evidence or measurement of effect • Figures for CO₂e • Links to relevant documents 	<p>Explain how you plan to mitigate any negative impacts.</p>	<p>Explain how you plan to improve any positive outcomes as far as possible.</p>
<p>Minimise greenhouse gas emissions e.g. reducing emissions from travel, increasing energy efficiencies etc.</p>	<p>Emissions from travel</p>	<p>X</p>		<p>Improving the operation of traffic signals results in more efficient highway network reducing congestion, delay and vehicle emissions. New technology also reduces power consumption and improves equipment reliability, reducing the need for engineers to travel to site to carryout repairs. Installing technology that is future ready also allows the asset to adapt and evolve with development of new intelligent traffic management systems and connected vehicles. Benefits will be relatively immediate but will increase with time.</p>		

<p>How will this proposal impact on the environment?</p> <p>N.B. There may be short term negative impact and longer term positive impact. Please include all potential impacts over the lifetime of a project and provide an explanation.</p>	<p>Positive impact (Place a X in the box below where relevant)</p>	<p>No impact (Place a X in the box below where relevant)</p>	<p>Negative impact (Place a X in the box below where relevant)</p>	<p>Explain why will it have this effect and over what timescale?</p> <p>Where possible/relevant please include:</p> <ul style="list-style-type: none"> • Changes over and above business as usual • Evidence or measurement of effect • Figures for CO₂e • Links to relevant documents 	<p>Explain how you plan to mitigate any negative impacts.</p>	<p>Explain how you plan to improve any positive outcomes as far as possible.</p>																					
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Other		X																									
<p>Minimise waste: Reduce, reuse, recycle and compost e.g. reducing use of single use plastic</p>		X																									
<p>Reduce water consumption</p>		X																									

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<p>Minimise pollution (including air, land, water, light and noise)</p>	<p>X</p>			<p>The benefits of improved traffic signal operation will contribute to meeting air quality targets and noise reduction. In addition to this, LED signals are adaptive to light condition and dim during the dark to minimise light pollution. Greater reliability of equipment reduces the need for engineers to travel to site to carry out repairs reducing travel and vehicle emissions.</p>		
<p>Ensure resilience to the effects of climate change e.g. reducing flood risk, mitigating effects of drier, hotter summers</p>	<p>X</p>			<p>The reduction of vehicle emissions will contribute to lower carbon footprint and climate change effects.</p>		

<p>How will this proposal impact on the environment?</p> <p>N.B. There may be short term negative impact and longer term positive impact. Please include all potential impacts over the lifetime of a project and provide an explanation.</p>	<p>Positive impact (Place a X in the box below where relevant)</p>	<p>No impact (Place a X in the box below where relevant)</p>	<p>Negative impact (Place a X in the box below where relevant)</p>	<p>Explain why will it have this effect and over what timescale?</p> <p>Where possible/relevant please include:</p> <ul style="list-style-type: none"> • Changes over and above business as usual • Evidence or measurement of effect • Figures for CO₂e • Links to relevant documents 	<p>Explain how you plan to mitigate any negative impacts.</p>	<p>Explain how you plan to improve any positive outcomes as far as possible.</p>
<p>Enhance conservation and wildlife</p>		<p>X</p>				
<p>Safeguard the distinctive characteristics, features and special qualities of North Yorkshire's landscape</p>	<p>X</p>			<p>Improving the operation and efficiency of traffic signals will reduce congestion and delay and therefore create a better highway environment, reducing the impacts of vehicle emissions on the natural and historic built environment.</p>		
<p>Other (please state below)</p>		<p>X</p>				

Are there any recognised good practice environmental standards in relation to this proposal? If so, please detail how this proposal meets those standards.

None

Summary Summarise the findings of your impact assessment, including impacts, the recommendation in relation to addressing impacts, including any legal advice, and next steps. This summary should be used as part of the report to the decision maker.

The improvement of the operation of traffic signals can only bring about positive change through more efficient traffic flow management, reducing congestion, delay and vehicle emissions.

Sign off section

This climate change impact assessment was completed by:

Name	David Kirkpatrick
Job title	Traffic Engineering Team Leader
Service area	Traffic Engineering
Directorate	BES
Signature	
Completion date	29/04/21

Authorised by relevant Assistant Director (signature): **Barrie Mason**

Date: **04/05/21**