

Equality impact assessment (EIA) form: evidencing paying due regard to protected characteristics

(Form updated October 2023)

ENV 03 Street (Footway) Lighting Investment Programme and ENV 04 Street Lighting Energy Savings

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যদি আপনি এই ডকুমেন্ট অন্য ভাষায় বা ফরমেটে চান, তাহলে দয়া করে আমাদেরকে বলুন।

如欲索取以另一語文印製或另一格式製作的資料，請與我們聯絡。

اگر آپ کو معلومات کسی دیگر زبان یا دیگر شکل میں درکار ہوں تو برائے مہربانی ہم سے پوچھئے۔

Equality Impact Assessments (EIAs) are public documents. EIAs accompanying reports going to County Councillors for decisions are published with the committee papers on our website and are available in hard copy at the relevant meeting. To help people to find completed EIAs we also publish them in the Equality and Diversity section of our website. This will help people to see for themselves how we have paid due regard in order to meet statutory requirements.

Name of Directorate and Service Area	Environment; Highway Operations
Lead Officer and contact details	Neil Jackson Electrical Engineering Manager neil.jackson2@northyorks.gov.uk
Names and roles of other people involved in carrying out the EIA	Nigel Smith – Head of Highway Operations Nigel.smith@northyorks.gov.uk
How will you pay due regard? e.g. working group, individual officer	Individual Officer, reviewing and following on from larger NYCC LED scheme undertaken between 2018 and 2022
When did the due regard process start?	May 2023

Section 1. Please describe briefly what this EIA is about. (for example, are you starting a new service, changing how you do something, stopping doing something?)

1. LED PROGRAMME:

The proposal is to accelerate the installation of energy efficient LED lanterns on footway lighting columns, formerly owned by the seven District and Borough Councils prior to Local Government Reorganisation.

Previously NYCC replaced over 40,000 older-style street lighting lanterns with LED equipment.

Following the same principles, this proposal will be to replace approximately 4000 obsolete non-LED lanterns with new energy efficient LED equipment over a manageable 3-year period. The proposal also covers the replacement of equipment approaching the end of useable life (columns/brackets) and the possibility of implementing of part-night lighting.

The scope is limited to footway lighting, now owned by NYC. Parish or Town Council streetlights are not part of this proposal.

- 2. ENERGY SAVINGS:** Additionally, due to a change (reduction) in overall energy prices, a reduction in energy costs for all street lighting assets will be realised, resulting in £2m in energy savings identified corporately as an underspend

Section 2. Why is this being proposed? What are the aims? What does the authority hope to achieve by it? (for example, to save money, meet increased demand, do things in a better way.)

1. LED PROGRAMME:

Between 2015 and 2019, EU legislation effectively made High Pressure Mercury and Low Pressure Sodium lighting obsolete. As a result, NYC is no longer able to maintain these lantern types which make up a large proportion of the former District Councils' footway lighting stock. These lights will gradually fade and cease to operate over the next 4-5 years.

All non-LED lamp types are very inefficient when compared with LED technology.

LED technology offers a number of technical and financial benefits over the range of older technology non-LED lights.

- a. Use less energy.
- b. Longer lasting – requiring less routine maintenance.
- c. More resilient – require less reactive maintenance.
- d. Throw a more focused light beam downwards onto pavements and highways (ie the areas that we want to light), with less light thrown upwards and sideways (reduced light pollution).

The proposal will see an investment of £2.49m over a 3-year timeframe.

We expect it to deliver a revenue budget saving of £250k per year at current energy rates.

The proposal will also reduce the environmental footprint of North Yorkshire streetlighting by reducing CO2 emissions

- 2. ENERGY SAVINGS -** due to a change (reduction) in overall energy prices, a saving in energy costs for all street lighting assets will be realised, resulting in £2m in energy savings identified corporately as an underspend

Section 3. What will change? What will be different for customers and/or staff?

LED programme

The proposal is to accelerate the replacement of footway lights with LED alternatives. To this point about 5000 LED footway lights have previously been installed by the former District Councils, primarily Hambleton District, however many have been upgraded in Richmondshire, Ryedale and Scarborough area also.

Over a 3 year period, many North Yorkshire residents will see these lights migrate to energy efficient equipment so that by 2026, all NYC owned footway lights will utilise LED technology. The proposal does not include any change to the location of streetlights however, it may include a reduction in burning hours as some lights could switch off between midnight and 5am whilst road use is at a minimum.

The proposals will not impact on lights owned by Town, or Parish Councils.

Footway lighting is not designed to any standard however the replacement of inefficient lanterns with LED is likely to generate a marginal improvement in performance of the lights with a significant saving in energy.

Any impact on residents will be due to the different look and feel of LED lights. All new lighting will have a colour temperature of 2700k in keeping with the requirements of International Dark Sky reserves.

Research suggests that some residents including those with some visual impairments have reported finding 4000k and 5000k LED light harsh. Limiting the new light source to 2700k will minimise that effect, providing a warmer light while retaining the technical and financial benefits associated with LED.

There should be no difference for staff.

ENERGY SAVINGS – NO CHANGE FOR CUSTOMERS OR STAFF

Section 4. Involvement and consultation (What involvement and consultation has been done regarding the proposal and what are the results? What consultation will be needed and how will it be done?)

LED PROGRAMME:

engagement with Parish and Town Councils is commencing and will be undertaken in relation to both LED installation and the implementation of part-night lighting.

Many local authorities across the country, including NYC, have successfully adopted LED technology and the Council has already successfully converted over 26,000 street lighting columns to part-night operation.

There is likely to be some limited consultation with Parish/Town Councils to ascertain which footway lighting can be switched off between midnight and 5am.

ENERGY SAVINGS – N/A – THIS IS SIMPLY A BUDGET REDUCTION

Section 5. 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.

LED PROGRAMME

The proposal is to invest £2.49m over a three-year period, replacing approximately 5000 lanterns with LED technology. We expect this project to deliver an annual £250k revenue saving by the end of the project.

ENERGY SAVINGS

due to a change (reduction) in overall energy prices, a saving in energy costs for all street lighting assets will be realised, resulting in £2m in energy savings identified corporately as an underspend

Section 6. How will this proposal affect people with protected characteristics?	No impact	Make things better	Make things worse	Why will it have this effect? Provide evidence from engagement, consultation and/or service user data or demographic information etc.
Age		X		LED PROGRAMME: Marginal improvement in lighting performance, reduction in light pollution, reduction in energy consumption and subsequent reduction in carbon footprint. ENERGY SAVINGS N/A
Disability		X		As above. There is no reason to believe that the proposal will have any negative effect due to disability.
Sex		X		As above. There is no reason to believe that the proposal will have any negative effect due to Sex.
Race		X		As above. There is no reason to believe that the proposal will have any negative effect due to race.
Gender reassignment		X		As above. There is no reason to believe that the proposal will have any negative effect due to gender reassignment.

Sexual orientation		X		As above. There is no reason to believe that the proposal will have any negative effect due to sexual orientation.
Religion or belief		X		As above. There is no reason to believe that the proposal will have any negative effect due to religion or belief.
Pregnancy or maternity		X		As above. There is no reason to believe that the proposal will have any negative effect due to pregnancy or maternity.
Marriage or civil partnership		X		As above. There is no reason to believe that the proposal will have any negative effect due to marriage or civil partnership.

Section 7. How will this proposal affect people who...	No impact	Make things better	Make things worse	Why will it have this effect? Provide evidence from engagement, consultation and/or service user data or demographic information etc.
..live in a rural area?		X		LED PROGRAMME: Potential improvement in lighting levels and effectiveness of the new LED installations. ENERGY SAVINGS – N/A
...have a low income?	X			
...are carers (unpaid family or friend)?	X			
..... are from the Armed Forces Community	X			

Section 8. Geographic impact – Please detail where the impact will be (please tick all that apply)	
North Yorkshire wide	<p>LED PROGRAMME</p> <p>The proposal is for NYC to roll out 2700K (light colour temperature) lanterns which is a warm white as recommended for use in the International Dark Sky Reserves. Therefore, there is little reason to expect the new lighting to impact on sleep patterns.</p> <p>It is our intention to offer a directional shield around the streetlight for customers for whom the roll-out causes a specific problem. For example, where a streetlight is directly outside a window.</p> <p>Part-night operation may have an impact on residents who are particularly sensitive to crime, perceived crime and fear of crime and antisocial behaviour. These could include protected groups such as Age, Race, Gender, Sex etc.</p> <p>To mitigate this perception, an assessment will be undertaken on all streetlights to determine whether they should remain operational throughout the night. Criteria to be considered include:</p> <ul style="list-style-type: none"> • crime, • accidents,

	<ul style="list-style-type: none"> • presence of CCTV, • traffic calming, • proximity to sheltered accommodation, and/or • proximity 24hr emergency services. <p>As with the County Council's previous part-night exercise, consultation will be carried out with Parish and Town Councils to determine whether the existing lighting meets the criteria outlined above.</p> <p>ENERGY SAVINGS – N/A</p>
Craven	See above
Hambleton	See above
Harrogate	See above
Richmondshire	See above
Ryedale	See above
Scarborough	See above
Selby	See above
If you have ticked one or more areas, will specific town(s)/village(s) be particularly impacted? If so, please specify below.	
<p>LED PROGRAMME All settlements with former district / borough council footway lighting will be reviewed as part of this exercise</p> <p>ENERGY SAVINGS – N/A</p>	

Section 9. Will the proposal affect anyone more because of a combination of protected characteristics? (for example, older women or young gay men) **State what you think the effect may be and why, providing evidence from engagement, consultation and/or service user data or demographic information etc.**

LED PROGRAMME AND ENERGY SAVINGS:
There is no reason to expect that the proposals will have an increased effect due to a combination of protected characteristics.

Section 10. Next steps to address the anticipated impact. Select one of the following options and explain why this has been chosen. (Remember: we have an anticipatory duty to make reasonable adjustments so that disabled people can access services and work for us)	Tick option chosen
1. No adverse impact - no major change needed to the proposal. There is no potential for discrimination or adverse impact identified.	✓.
2. Adverse impact - adjust the proposal - The EIA identifies potential problems or missed opportunities. We will change our proposal to reduce or remove these adverse impacts, or we will achieve our aim in another way which will not make things worse for people.	
3. Adverse impact - continue the proposal - The EIA identifies potential problems or missed opportunities. We cannot change our proposal to reduce or remove	

these adverse impacts, nor can we achieve our aim in another way which will not make things worse for people. (There must be compelling reasons for continuing with proposals which will have the most adverse impacts. Get advice from Legal Services)	
4. Actual or potential unlawful discrimination - stop and remove the proposal – The EIA identifies actual or potential unlawful discrimination. It must be stopped.	
Explanation of why option has been chosen. (Include any advice given by Legal Services.) LED PROGRAMME The financial and sustainability benefits are very significant and well understood. The proposal is also likely to deliver a range of difficult to measure benefits to a large group of people through improved personal safety on better lit roads and pavements, and improved perceptions of safety. ENERGY SAVINGS – NO ADVERSE AFFECT due to a change (reduction) in overall energy prices, a saving in energy costs for all street lighting assets will be realised, resulting in £2m in energy savings identified corporately as an underspend	

Section 11. If the proposal is to be implemented how will you find out how it is really affecting people? (How will you monitor and review the changes?) LED PROGRAMME Concerns and/or complaints about LED lighting have tended to be limited to requests for light screens which are generally provided whenever possible. With regard to part-night lighting, continuous monitoring of feedback from residents and the Police will be taken into consideration to make further changes where it is deemed necessary. For example, should North Yorkshire Police identify specific areas where there has been a significant increase in crime or accidents which they consider to be as a direct result of the part night scheme, we will immediately review the lighting in that area. The previous part-night project saw over 26,000 lights converted to part night operation. Since the implementation of that project in 2012, less than 100 lights have been switched back to all-night operation. The previous LED project on the County Council's roadway lighting was completed using 4000k LEDs. These were generally accepted with very few complaints about the neutral-cool white nature of the fittings, around 10-15 complaints/year. The current project acknowledges this and allows for 2700k colour lanterns which are a much warmer light, closer to the red end of the spectrum. These lanterns are also Dark Sky Complaint and acceptable within both of North Yorkshire's National Parks. Upon completion, any associated correspondence will be monitored and addressed
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ENERGY PROGRAMME – N/A: This is simply a saving in energy costs for all street lighting assets will be realised, resulting in £2m in energy savings identified corporately as an underspend

Section 12. Action plan. List any actions you need to take which have been identified in this EIA, including post implementation review to find out how the outcomes have been achieved in practice and what impacts there have actually been on people with protected characteristics.

Action	Lead	By when	Progress	Monitoring arrangements
This is an extension / continuation of principles of a previously successful project.	N Jackson	ongoing		See section 11

Section 13. Summary Summarise the findings of your EIA, including impacts, 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 financial and sustainability benefits of LEDs are very significant and well understood. The proposal is also likely to deliver a range of difficult to measure benefits to a large group of people through improved personal safety on better lit roads and pavements, and improved perceptions of safety.

Research suggests that LED lighting could negatively impact a small number of people with specific health or visual impairment issues. While the evidence is not fully understood, advice is to avoid using bluish-white light. The Council's previous LED project successfully introduced LED lighting to North Yorkshire with very few complaints or concerns raised. That project used LEDs with a colour temperature of 4000k. Advances in LED technology suggest that we can now install lighting at 2700k colour (warm white) which should mitigate any impact whilst still delivering the financial and technical benefits of LED lighting.

We will also mitigate any potential negative impact through offering to install front, side and rear shields around a lantern if it causes specific problems e.g. directly outside somebody's bedroom

window. These will only be offered in response to complaints as they can impact on the lighting performance.

Therefore, the overall conclusion is to continue the proposal, while being ready to offer potential solutions on a case by case basis to mitigate specific problems.

Section 14. Sign off section

This full EIA was completed by:

Name: Nigel Smith
Job title: Head of Highway Operations
Directorate: Environment
Signature: N Smith

Completion date: 7 January 2025

Authorised by relevant Assistant Director (signature):

Date: 7 Jan 2025