

Impact Assessment



Assessment of: Central Management System (CMS) Street Lighting Project

Service: Climate Change, Environment and Transport

Head of Service: Meg Booth

Version / date of sign off by Head of Service: 12/09/24

Assessment carried out by (job title): Highways Business Systems Coordinator

1. Description of project / service / activity / policy under review

Devon County Council (DCC) Street Lighting Trial and Policy Review

2. Proposal, aims and objectives, and reason for change or review

Background

Since the 2012/13 baseline, carbon associated with DCC's street lighting asset has been reduced by circa 80%. Equally, DCC have received requests from multiple Parishes wanting to 'do their bit' and decrease this further by reducing lighting in their areas. This is perhaps in contrast to places like Exeter where DCC have worked with partners to increase lighting through the Safer Streets Funds.

In parallel, DCC have been expanding the Street Lighting Central Management System (CMS) across Devon. The CMS enables remote dimming, fault monitoring, diagnosis and allows bespoke lighting requests. It therefore gives the flexibility to respond to the above conflicting demands/challenges

Aims/Objectives/Reasons for Change

[DCC's Street Lighting Policy](#) was last reviewed by Cabinet in 2019 and thus requires review. In those 5 years, there have been fundamental changes in carbon reduction commitments, local government finances and the technology available in the sector. The aim of this project is to ensure the policy remains fit for the future.

Furthermore, DCC are aware that numerous other Highway Authorities are progressing similar projects

If the trial is successful, DCC and Devon's residents/visitors could see benefits in multiple areas:

- Environmental
- Economic

- Social Value

Proposal

DCC are proposing to review the street lighting policy as follows:

- Winter '23/'24 – Trial of further dimming/switching regimes in Sidmouth, The Kerswells and Holcombe Rogus. These areas have expressed an interest and would provide a good balance of geography/urban/rural etc. A trial period of 6-weeks is proposed whereby every 2-weeks the time that the lights dim, and turn off, will be brought forward.
- Spring/Summer '24 – Measure the outcomes from the trial
- Ongoing – If the trial is considered successful, make recommendations for an updated Street Lighting Policy which could then be implemented across

3. Risk assessment, limitations and options explored (summary)

The findings of the equality analysis consider several groups to not be affected by the proposed trial (geographic area, age, race, sexual orientation). However, consideration has been given to disability, sex and gender identity and how a reduction in lighting could affect these groups.

Any disadvantages posed by the trial are considered reasonable as the lighting can be changed immediately should any urgent requests be received. Communities put themselves forwards as wishing to participate in the trial. Other stakeholders such as the Police and Road Safety Team have been consulted to ensure a considerate approach to risk.

There were no human right considerations highlighted in this analysis.

Environmental analysis did not highlight any negative consequences as a result of the proposed trial. Benefits of the trial include those to wildlife, a reduction in emissions, minimising greenhouse gasses and pollution and enhanced resilience for climate changes. It is not considered that the street lighting project will impact reduction in water consumption positively, or neutrally.

Findings of the economic analysis highlight that knowledge, skills and employment will not be impacted as a result of the trial. Local businesses could be affected, with no lighting being a possible deterrent for custom, however, as this can be remedied immediately through the CMS system, this will be monitored throughout the trial.

Overall, project risks are detailed in the project Risk Management Plan.

Limitations

Limitations of the analysis include that the Equality Impact Assessment has predominantly relied on input from the Project Manager.

Devon has limited diversity as a County therefore, differing community needs will favour a demographic different to other locations where similar lighting changes are proposed or implemented.

Options explored

Options explored to ensure reasonable adjustments include that any lighting amendments can be made 24/7 by the Network Operations Control Centre in conjunction with the Police in response to any incident. Further, the Street Lighting Team are able to change programmed lighting during operational hours (09:00-17:00, Monday-Friday).

4. People affected, diversity profile and analysis of needs

Holcombe Rogus	
Age	Mid-Devon District Council constituency. 16.4% of the population are under 15 years, 59.5% 15-64 years and 24% 65 years and over.
Ethnicity	Census 2021 data estimates that 99% of Holcombe Rogus Parish class themselves as white.
Health and disability	Mid-Devon District Council constituency. 6.6% of people are disabled under the equality act, where day to day activities are limited a lot, 10.9% have daily activities limited a little, and 82.4% not disabled under the equality act.
Sex	Holcombe Rogus Parish is 51.2% female and 48.8% male from 2021 ONS data.

Socio-economic status	<p>10 Categories</p> <ul style="list-style-type: none"> • L1, L2 and L3: Higher managerial, administrative and professional occupations (16.1%) • L4, L5 and L6: Lower managerial, administrative and professional occupations (21%) • L7: Intermediate occupations (10%) • L8 and L9: Small employers and own account workers (24.3%) • L10 and L11: Lower supervisory and technical occupations (2.6%) • L12: Semi-routine occupations (9.1%) • L13: Routine occupations (8.6%) • L14.1 and L14.2: Never worked and long-term unemployed (3.3%) • L15: Full-time students (4.9%) • Does not apply
References	<p>2021 CENSUS FOR HOLCOMBE ROGUS PARISH</p> <p>Disability, England and Wales - Office for National Statistics (ons.gov.uk)</p>

Sidmouth	
Age	<p>East Devon District Council constituency. 8.7% of people are under 15 years, 40.5% 16-64 years, 50.9% 65 years and older.</p>

Ethnicity	97% white, 1.3% Asian, Asian British, Asian Welsh and 1.1% mixed or multiple ethnic groups.
Health and disability	East Devon District Council constituency. 6.3% of people are disabled under the equality act where day-to-day activities are limited a lot, 10.8% where day-to-day activities are limited a little and 82.9% are not disabled under the equality act.
Sex	53.5% female and 46.5% male as per 2021 ONS data.
Socio-economic status	<p>10 Categories</p> <ul style="list-style-type: none"> • L1, L2 and L3: Higher managerial, administrative and professional occupations 14.4% • L4, L5 and L6: Lower managerial, administrative and professional occupations 24.5% • L7: Intermediate occupations 12.6% • L8 and L9: Small employers and own account workers 15.1% • L10 and L11: Lower supervisory and technical occupations 4.9% • L12: Semi-routine occupations 12.2% • L13: Routine occupations 8.1% • L14.1 and L14.2: Never worked and long-term unemployed 4.7% • L15: Full-time students 3.6%
References	Age - Census Maps, ONS

	Disability, England and Wales - Office for National Statistics (ons.gov.uk) 2021 CENSUS FOR SIDMOUTH PARISH
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Abbotskerswell	
Age	Ipplepen & Broadhempston layer for ONS indicates 14% of people are 15 years and under, 53.5% are 16-64 years old and 32.4% are 65+ years old.
Ethnicity	Census 2021 data estimates that 98.1% of people in Abbotskerswell are white, 1.2% are mixed or multiple ethnic groups.
Health and disability	Teignbridge local authority district reports 7.2% of people are disabled under the equality act, 11.4% where day to day activities are limited a lot, have daily activities limited a little, and 81.4% not disabled under the equality act.
Sex	Abbotskerswell Parish is 52.5% female and 47.5% male from 2021 ONS data.
Socio-economic status	<p>10 Categories</p> <ul style="list-style-type: none"> • L1, L2 and L3: Higher managerial, administrative and professional occupations (15.3%) • L4, L5 and L6: Lower managerial, administrative and professional occupations (23.1%) • L7: Intermediate occupations (11.1%)

	<ul style="list-style-type: none"> • L8 and L9: Small employers and own account workers (14.1%)
	<ul style="list-style-type: none"> • L10 and L11: Lower supervisory and technical occupations (5.6%) • L12: Semi-routine occupations (10.7%) • L13: Routine occupations (8.3%) • L14.1 and L14.2: Never worked and long-term unemployed (7.3%) • L15: Full-time students (4.5%)
References	2021 CENSUS FOR ABBOTSKERSWELL PARISH Age - Census Maps, ONS Disability, England and Wales - Office for National Statistics (ons.gov.uk)

Kingskerswell	
Age	15.3% of people are 15 years and under, 55.9% of people are aged 16-64 years, 28.8% of people are 65+
Ethnicity	Census 2021 data estimates that 97.8% of people are white, whereas 1% of people are mixed or multiple ethnic groups.

Health and disability	For Teignbridge District Council constituency, 7.2% of people are disabled under the equality act, 11.4% where day to day activities are limited a lot, have daily activities limited a little, and 81.4% not disabled under the equality act.
Sex	The parish is 52% female and 48% male from 2021 ONS data.
Socio-economic status	10 Categories
	<ul style="list-style-type: none"> • L1, L2 and L3: Higher managerial, administrative and professional occupations (10.4%) • L4, L5 and L6: Lower managerial, administrative and professional occupations (22.2%) • L7: Intermediate occupations (12.7%) • L8 and L9: Small employers and own account workers (14.6%) • L10 and L11: Lower supervisory and technical occupations (5.3%) • L12: Semi-routine occupations (12.5%) • L13: Routine occupations (10.6%) • L14.1 and L14.2: Never worked and long-term unemployed (7.1%) • L15: Full-time students (4.7%)
References	<p>2021 CENSUS FOR HOLCOMBE ROGUS PARISH</p> <p>Disability, England and Wales - Office for National Statistics (ons.gov.uk)</p>

The ONS found in their 2022 study of the UK night-time economy that:

- The total number of night-time workers fell from 9.5 million in 2016 to 8.7 million in 2022
- In 2022, 15% of night-time workers worked from home compared with 25.1% of purely daytime workers
- The night-time economy relies heavily on people born outside of the UK: between 2012 and 2022, the number of night-time workers born outside of the UK rose by 32.6% to 2.0 million; in the 24-hour health and personal services grouping of industries, this number rose by 69.1% to 0.5 million.

[The night-time economy, UK - Office for National Statistics \(ons.gov.uk\)](https://ons.gov.uk)

5. Stakeholders, their interest and potential impacts

Stakeholder title	Internal or external	Project role	Requirements	Concerns
Street Lighting Team	Internal	Contract management	Frequent progress/decision direction	Capacity, contract management issues
Senior Management	Internal	Project promotion	Promote project interaction. Update and raise concerns	Capacity, not significantly updated
Customer Service Centre	Internal	Customer engagement and enquiries	Awareness of trial for informed customer communications	Capacity, not significantly updated
Customer Relations Team	Internal	Complaint management	Awareness of trial for informed customer communications	Capacity, not significantly updated

Local Councillors	Internal	Elected Members	Update on area progress, manage expectations	Managing local community expectations
Communications Team	Internal	Customer engagement and enquiries	Awareness of trial for informed customer communications	Capacity, not significantly updated
Advisory	Internal	Environmental Team	Advise on area to ensure appropriate consideration	Limited capacity, project context unclear

Advisory	Internal	Equality, Diversity, and Inclusion Team	Advise on area to ensure appropriate consideration	Limited capacity, project context unclear
Cabinet Member	Internal	Elected Members	Update on area progress, manage expectations	Managing local community expectations
Advisory	Internal	Legal Team	Advise on area to ensure appropriate consideration	Limited capacity, project context unclear
Advisory	Internal	Road Safety Team	Advise on area to ensure appropriate consideration	Limited capacity, project context unclear

Supplier	External	Contractor	Issues raised directly, decisions recorded, monitor outstanding inventory	Lack of capacity to deliver
Contractor	External	Contractor	Issues raised directly and decisions recorded	Lack of capacity to deliver, outstanding work outside of timescales
Inventory status system (system support)	External	System Support	Update on system users/permission levels, contact via nominated member	Restricted resources, slow response times
Customers/members of the public	External	Customers	Update on progress and contact in reasonable timescales, manage expectations	Local needs not met, not consulted effectively
Local Town and Parish Councils	External	Customers	Update on progress and contact in reasonable timescales, manage expectations	Local needs not met, not consulted effectively

6. Additional relevant research used to inform this assessment

The LED roll-out programme, along with the introduction of part-night lighting and a

stepped dimming regime have achieved substantial reductions in DCC's carbon footprint and revenue costs. This project seeks to continue this trend.

Other Local Highway Authorities, such as [Hampshire County Council](#), [Leicestershire County Council](#), [Lincolnshire County Council](#) and [Somerset Council](#) are reducing their lighting cost through extending the time that streetlights are turned off at night and reducing their brightness at certain times. It is clear that due to financial pressures in local government, Street Lighting is being considered as a key area that savings, both financially and from reducing emissions, can be found.

Devon County Council are working in partnership with Devon and Cornwall Police to understand crime levels in each trial area.

7. Description of consultation process and outcomes

The consultation process has involved local communities that have contacted the Street Lighting Team with such requests (the Project Team note that there have been other requests too, but these 3 locations have been selected for the initial trial).

The police have been contacted for awareness and to highlight any areas of concern for the trial. The safety of women and girls has been considered under the Equality Analysis in section 8. It is considered that the trial is safe to proceed due to the possibility of immediate lighting changes using CMS i.e. In the event that lighting is required in a specific area, this can be remedied swiftly.

Each trial area has been consulted via elected members to understand their requirements and community desires, these have been documented in a spreadsheet to understand the need. Areas will be advised post-trial of the project, to ensure that feedback from residents is not prompted or influenced by detailed knowledge of the changes. However, local elected members and Parish Councils will continue to be made aware so that they are able to provide some insight, should they receive contact from residents. Some areas have highlighted higher-risk areas where they would like the current lighting regime to remain, such as: surrounding pubs, bus stops and schools, and local facilities.

Background information

8. Equality analysis

Under the Equality Act 2010, the local authority must consider how people will be affected by a service, policy or practice. In so doing we must give due regard to the need to: eliminate unlawful discrimination, harassment and victimisation; advance equality of opportunity and foster good relations across protected characteristics of age, disability, gender reassignment, pregnancy and maternity, marriage and civil partnership (for work), sex, sexual orientation, race, and religion and belief. The Equality Act 2010 and other relevant legislation does not prevent the Council from taking difficult decisions which result in service reductions or closures for example, it does however require the Council to ensure that such decisions are: informed and properly considered with a rigorous, conscious approach and open mind, taking due regard of the effects on the protected characteristics and the general duty to eliminate discrimination, advance equality and foster good relations; proportionate (negative impacts are proportionate to the aims of the policy decision); fair, necessary, reasonable, and those affected have been adequately consulted.

- a) Is this group negatively or potentially negatively impacted, and in what way?
- b) What could be done or has been done to remove the potential for direct or indirect discrimination, harassment or disadvantage and inequalities?
- c) In what way do you consider any negative consequences to be reasonable and proportionate in order to achieve a legitimate aim?
- d) What can be done to advance equality further? This could include meeting specific needs, ensuring equality of opportunity and access, encouraging participation, empowering people, making adjustments for disabled people and action to reduce disparities and inequalities.
- e) Is there a need to foster good relations between groups (tackled prejudice and promote understanding) and help people to be safe and protected from harm? What can be done?

[Answer the questions above for each of the characteristics below. Use the data, consultation and research sections 4 and 5 as evidence. If carrying out an options appraisal, explore the pros and cons of each option for each characteristic. Delete this note]

All residents by geographic area

- a) This group is not negatively impacted by the implementation of stepped dimming or reduced lighting as this has been specifically requested by the local town and parish councils, who consult and engage the town as necessary.

- b) Road safety audit being completed at all trial areas. Findings to be reviewed and any concerns to have safety measures/controls implemented. EIA and risk assessment being completed to highlight any areas for consideration.
- c) Any negative consequences will be monitored throughout the trial period. To achieve the reduction in Devon County Council's energy consumption costs and carbon footprint from the lighting asset with the current programme, any negative consequences will be proportionate. Legally, there is no obligation to provide light, it is purely to maintain the asset.
- d) Should there be any issues raised around equality once the lighting regime is in place, this can be updated and changed dynamically, without the requirement to attend site.
- e) Local needs and requirements have been considered when outlining the custom lighting for each trial area. Any particular locations with specific needs have been highlighted to ensure people are safe/protected from harm, such as around services, pubs, schools etc.

Age

- a) Any negative impacts from the implementation of stepped dimming or reduced lighting will be monitored throughout the trial. The Office for National Statistics (ONS) found in the Crime Survey for England and Wales 2016, that perceived perception of victimisation varies by age. They found that:
 - Those aged 16-24 years tended to underestimate victimisation amongst their age group
 - Those ages 25-34 years produced a better estimate of their likelihood of experiencing victimisation
 - Individuals 35 years and older tended to overestimate their likelihood of victimisation, when compared to victimisation rate

[Public perceptions of crime in England and Wales - Office for National Statistics](#)

- b) Road safety audit being completed at all trial areas. Findings to be reviewed and any concerns to have safety measures/controls implemented. EIA and risk assessment being completed to highlight any areas for consideration.
- c) Any negative consequences would be reasonable and proportionate to achieve the legitimate aim to reduce Devon County Council's energy consumption costs and carbon footprint from the lighting asset with the current programme. Legally, there is no obligation to provide light, it is purely to maintain the asset.
- d) Should there be any issues raised around equality once the lighting regime is in place, this can be updated and changed in the office, without the requirement to

attend site. To advance equality, any reasonable adjustment requirements should be asked of the local area prior to implementing any changes.

Local needs and requirements have been considered when outlining the custom lighting for each trial area. Any particular locations with specific needs have been highlighted to ensure people are safe/protected from harm, such as around services, pubs, schools etc

Disability (includes sensory, mobility, mental health, learning disability, neurodiversity, long term ill health) and carers of disabled people

- a) This group could be potentially negatively impacted in terms of sensory implications with reduced or no lighting. This could affect people with sensory processing disorder, autism, those that are partially sighted, or blind. Mitigation for these needs include that lighting can be adjusted at short notice to improve the experience of disabled people, and feedback from members of the public will be responded to as appropriate throughout the trial. Any impacts will be monitored as part of the trial.
- b) Road safety audit being completed at all trial areas. Findings to be reviewed and any concerns to have safety measures/controls implemented. EIA and risk assessment being completed to highlight any areas for consideration.
- c) Negative consequences are reasonable whilst undertaking the trial, as any need for lighting can be swiftly remedied using the CMS system in the office. Elected members and the public can feedback at any stage of the trial - if there are negative impacts for local communities, Devon County Council would welcome any response so that adjustments can be made accordingly.
- d) Should there be any issues raised once the lighting regime is in place, this can be updated and changed in the office. To advance equality, any reasonable adjustment requirements should be asked of the local area prior to implementing any changes, however, changes can be made once the trial has started.
- e) Any particular locations with specific needs have been highlighted to ensure people are safe/protected from harm, such as around services, pubs, schools etc.

Race and culture: nationality/national origin, ethnic origin, skin colour, religion and belief, asylum seeker and refugee status, language needs

Impact of a reduction in the lighting on this group will be monitored throughout the trial and feedback sought afterwards, through Parish and Town Councils.

Fear of crime was considered in the ONS Crime Survey for England and Wales,

2016. The percentage and number of people who had a fear of crime by ethnicity over time is highlighted below. [Fear of crime - GOV.UK Ethnicity facts and figures \(ethnicity-facts-figures.service.gov.uk\)](https://www.gov.uk/ethnicity-facts-figures)

Ethnicity	% of fear of crime (2013-14)	% of fear of crime (2014-15)	% of fear of crime (2015-16)
Asian	31%	28%	27%
Black	27%	24%	26%
Mixed	29%	20%	21%
White	18%	17%	18%
Other	25%	26%	27%

- b) Road safety audit being completed at all trial areas. Findings to be reviewed and any concerns to have safety measures/controls implemented. EIA and risk assessment being completed to highlight any areas for consideration.
- c) Any negative consequences would be reasonable and proportionate to achieve the legitimate aim to reduce Devon County Council's energy consumption costs and carbon footprint from the lighting asset with the current programme. Legally, there is no obligation to provide light, it is purely to maintain the asset.
- d) Should there be any issues raised around equality once the lighting regime is in place, this can be updated and changed in the office, without the requirement to attend site. To advance equality, any reasonable adjustment requirements should be asked of the local area prior to implementing any changes.
- e) Local needs and requirements have been considered when outlining the custom lighting for each trial area. Any particular locations with specific needs have been highlighted to ensure people are safe/protected from harm, such as around services, pubs, schools etc.

Sex and gender identity and reassignment (including men, women, non-binary and transgender people), and pregnancy and maternity (including women's right to breastfeed)

- b) All groups could potentially be negatively impacted by reduction in lighting due to risk of violence and harassment (in particular, women, non-binary and transgender people) - [Reclaim the Night 2023 - Exeter Observer, https://www.bbc.com/worklife/article/20210409-how-to-design-safer-cities-](https://www.bbc.com/worklife/article/20210409-how-to-design-safer-cities)

[forwomen](#). This depends on perception of safety, often linked to lighting levels: [How can lighting make our cities more inclusive? - Arup](#).

- people felt less safe walking alone in all settings after dark than during the day; with women feeling less safe than men in all settings after dark
- more women (27%) than men (16%) reported they had experienced at least one form of harassment in the previous 12 months ([Perceptions of personal safety and experiences of harassment, Great Britain - Office for National Statistics](#))

This will be monitored as part of the ongoing trial, including any issues raised, such as vegetation control.

- To remove potential for indirect or direct discrimination, each local area will be consulted upon trial completion to get their unique views on what is best for the community, allowing input.
- Any negative consequences as a result of the trial will be monitored throughout the period.
- Any adjustments found to be unsatisfactory upon implementation can be changed quickly in the office environment.
- Local needs and requirements have been considered when outlining the custom lighting for each trial area. Any particular locations with specific needs have been highlighted to ensure people are safe/protected from harm, such as around services, pubs, schools etc.

Sexual orientation, and marriage/civil partnership if work related

- It is unknown if this group will be negatively impacted by the trial due to a lack of data/research. This will be monitored as part of the trial.
- Road safety audit completed at all trial areas. Findings to be reviewed and any concerns to have safety measures/controls implemented. EIA and risk assessment being completed to highlight any areas for consideration.
- Any negative consequences would be reasonable and proportionate to achieve the legitimate aim to reduce Devon County Council's energy consumption costs and carbon footprint from the lighting asset with the current programme. Legally, there is no obligation to provide light, it is purely to maintain the asset.
- Should there be any issues raised around equality once the lighting regime is in place, this can be updated and changed in the office, without the requirement to attend site. To advance equality, any reasonable adjustment requirements should be asked of the local area prior to implementing any changes.

- e) Local needs and requirements have been considered when outlining the custom lighting for each trial area. Any particular locations with specific needs have been highlighted to ensure people are safe/protected from harm, such as around services, pubs, schools etc.
- f)

Other relevant socio-economic factors and intersectionality

This includes:

- people on low incomes, children in care and care experienced people, armed services veterans, family background (size/single people/lone parents/family carers etc.), sub-cultures, refugee status, asylum seeker no recourse to public funds.
- housing quality and tenure, education and skills, language and literacy skills, health and wellbeing.
- rural isolation, access to services and transport, access to ICT/Broadband, social connectivity.

Also consider intersectionality with other characteristics.

N/A

9. Human rights considerations:

We need to ensure that human rights are protected. In particular, that people have:

- A reasonable level of choice in where and how they live their life and interact with others (this is an aspect of the human right to 'private and family life').
- An appropriate level of care which results in dignity and respect (the protection to a private and family life, protection from torture and the freedom of thought, belief and religion within the Human Rights Act and elimination of discrimination and the promotion of good relations under the Equality Act 2010).
- A right to life (ensuring that nothing we do results in unlawful or unnecessary/avoidable death).

It is not considered that there are any relevant human rights considerations in relation to this project.

10. Environmental analysis

An impact assessment should give due regard to the following activities in order to ensure we meet a range of environmental legal duties. The policy or practice does not require the identification of environmental impacts using this Impact Assessment process because it is subject to (please mark X in the relevant box below and proceed to the 11, otherwise complete the environmental analysis information below):

Devon County Council's Environmental Review Process	
Planning Permission	
Environmental Impact Assessment	
Strategic Environmental Assessment	

- a) Description of any actual or potential negative consequences and consider how to mitigate against these.
- b) Description of any actual or potential neutral or positive outcomes and consider how to improve as far as possible.

[If carrying out an options appraisal, explore the pros and cons of each option for each area]

Reduce, reuse, recycle and compost

- a) No negative consequences highlighted, there will be a reduction in the lighting usage, and therefore a reduction in financial cost and emissions from light.
- b) Benefits include a reduction in the lighting usage, causing a lesser cost and emission for the lighting asset

Conserve and enhance wildlife

- a) Having reduced or lighting turned off would only benefit local wildlife such as bats, birds, moths, and other insects. The in-house Ecology team have been consulted for their input to ensure that there are no unintended wildlife consequences.
- b) Positive impacts from reducing the lighting regime will include clear skies, fewer environmental interferences for wildlife and insects, specifically for those that are nocturnal.

Safeguard the distinctive characteristics, features and special qualities of Devon's landscape

- a) Some areas may not be as visible if travelling the network at night depending on the lighting regime applied.
- b) The project ties in with improved environmental action, therefore promoting a green Devon approach and recognising its unique offering in terms of landscapes etc. As community views are considered, this allows flexibility and best practice

Conserve and enhance Devon's cultural and historic heritage

- a) Potential negative consequences could include that Devon's attractions are less visible at night. Also, a potential reduction in business, for businesses operating in residential areas late at night due to poor lighting being a deterrent. This can be mitigated through ensuring members of the public know they can contact us and due to the CMS system, the lighting can be adjusted quickly and remotely to accommodate any specific needs or requests.
- b) Turning the lights off earlier will enhance dark skies.

Minimise greenhouse gas emissions

- a) Potential negative consequences include disposal of previous outdated inventory (previous system/bulbs that aren't LED). Possibility of recycling these for reuse with the contractor as they are not broken, DCC is upgrading.
- b) Positive impacts from this project due to reducing energy consumption to light the street lighting asset. Upgrading to LED also increases the energy efficiency and the CMS system allows more flexibility, reducing the demand for site visits to change programming.

Minimise pollution (including air, land, water, light and noise)

- a) Potential negative consequences include the decommissioned equipment being less efficient. This will be recycled to be used elsewhere by the contractor.
- b) Positive outcomes in terms of reducing lighting pollution, benefitting both wildlife and human health, improving sleep quality and reducing complaints causing site visits.

Contribute to reducing water consumption

- a) It is not considered that the street lighting project will impact reduction in water consumption negatively.
- b) It is not considered that the street lighting project will impact reduction in water consumption positively, or neutrally.

Ensure resilience to the future effects of climate change (warmer, wetter winters; drier, hotter summers; more intense storms; and rising sea level)

- a) It is not envisaged that there will be any negative consequences to climate change effects through reducing the lighting levels.
- b) Positive outcome being that the new lighting system is more resilient, the telecell on top of the lantern, used to adjust lighting levels, can withstand wetter weather and is more weatherproof than previous technology. Lighting level also able to be adjusted to accommodate for safety in weather events.

Other (please state below)

N/A

11. Economic analysis

- a) Description of any actual or potential negative consequences and consider how to mitigate against these.
- b) Description of any actual or potential neutral or positive outcomes and consider how to improve as far as possible.

[If carrying out an options appraisal, explore the pros and cons of each option for each area]

Impact on knowledge and skills

It is not considered that a reduction in the street lighting levels will have an impact on knowledge and skills.

Impact on employment levels

It is not considered that a reduction in the street lighting levels will have an impact on employment level.

Impact on local business

- a) Due to a reduction in the street lighting level, there is the potential negative consequence that any businesses operating later at night may have a reduction in custom. However, in the trial areas it is likely that local businesses are already closed before the lighting comes on and is dimmed or switched off around 11pm. Each of the trial areas are unlikely to attract business beyond daylight hours. If contact is received advising that business has been adversely impacted as a result of the lighting, this can be remedied quickly due to the CMS system.

Also, consideration for the fear of crime increasing, due to the reduction in lighting

levels. There is no evidence to suggest that the proposed changes would lead to an increase in crime, however, they may result in an increased fear of it occurring.

- b) The reduction in street lighting level could be positive for local businesses, if people are not familiar with the area, and therefore unaware businesses exist. Having increased lighting may make a business a more likely target for crime.