TORBAY COUNCIL

Meeting: Cabinet/Council **Date:** 18 November/11 December 2025

Wards affected: All

Report Title: Streetlighting Central Management System and Light Emitting Diode (LED) Upgrade Project

When does the decision need to be implemented? ASAP

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1. Purpose of Report

1.1. Torbay Council have 14,794 individual streetlights on the public highway, they are currently managed as individual assets which is expensive and time consuming and an outdated practice in comparison to other local authorities. This project seeks approval to proceed with the procurement and installation of Telensa's Central Management System (CMS) and install 3,431 Holophane LED lanterns for our streetlighting inventory. The cost to deliver this project is £2,261,870 of borrowing to fund the delivery of the scheme. Based on the savings from the solution and the repayment of the loan, the estimated payback for the project is 12 years.

1.2. Technology and innovation now provide the ability to manage, monitor and control all the streetlights from a single laptop.

1.3. Telensa allows a degree of control over energy costs and in particular energy cost spikes that we currently do not have.

2. Reason for Proposal and its benefits

2.1. The proposals in this report help us to deliver our vision of a healthy, happy, and prosperous Torbay by reducing the carbon emissions of the Council's largest carbon emitter by nearly half, from 504 tonnes to 230 tonnes a year, also reducing the energy costs by £292,291.00 a year and allowing the authority to be able to manage lighting levels to suit all the demands and needs on the service.

2.2. The reasons for the proposal, and need for the decision are, we can be at the forefront of innovation and technology to assist us to manage and meet our carbon zero goals by 2030.

2.3. The roll out will benefit equally all three towns that make up Torbay and allow the innovation to be utilised in every lit street in the bay. The proposal includes the removal of dated lanterns to be replaced with new LED Holophane Lanterns that are more energy efficient and reduce the carbon footprint of our streetlights.

2.4. The proposal allows to fully maximise the potential of our streetlight assets and to use the asset in a different way. Currently they would be viewed as either on or off, the computer management system of Telensa allows us to set lighting levels and roll out dimming regimes that will help people sleep better at night. Lighting levels close to our coastline can be reduced to prevent light pollution which affect marine biodiversity.

2.5. The proposal importantly allows a degree of managing energy cost spikes that currently we have no control over, lights can be dimmed or switched off depending on the necessity of the situation to reduce energy costs in times of need which keeps a strong grip on finances.

2.6. During summer events like the firework displays which attract large crowds onto our seafront areas, the lights can be switched off to enhance the visual experience, alternatively lighting levels can be increased around Torquay United homes games for people to get away safely. Public realm areas at the weekends can have an increase in lighting to assist CCTV and anti-social behaviour.

3. Recommendation(s) / Proposed Decision

3.1. That subject to 3.2 below, Cabinet approve Option 3 as set out in Section 7 of the submitted report, with borrowing for the sum of £2,261.870, including 5% contingency for the purchase and hosted service of Telensa Computer Management System, and 3,431 new LED lanterns to upgrade streetlighting in Torbay; and

3.2. That Council be recommended to approve prudential borrowing of £2,261.870 including 5% contingency for the purchase and hosted service of Telensa Computer Management System, and 3,431 new LED lanterns to upgrade streetlighting in Torbay.

4. Appendices

Appendix 1: Streetlighting CMS and LED Upgrade Full Business Case

Appendix 2: Climate Impact Assessment Report - Streetlighting LED & CMS upgrade project

5. Background Documents

Not Applicable.

Supporting Information

6. Introduction

6.1. The Council's total spend on electricity and gas between April 2024 to March 2025 was £3,304,966. The energy consumption of our streetlighting made up £777,683 of this total,

making it the highest energy consuming asset on our Council asset list, and therefore key to explore solutions to reduce the energy consumption and make financial savings. In the 2024/25 financial year, our streetlighting accounted for 504 tonnes of carbon emissions, which makes up 11% of our Council's carbon footprint.

6.2. The current service model is the traditional method of lighting which is now very dated. Each existing light is an individual piece of lighting infrastructure fed by a low voltage cable. Each light has a preset lighting output which can be adjusted, which is known as dimming, but it requires the contractor to visit each light and replace the driver. The cost of this attendance and driver replacement is upwards of £120 per unit. Each light fitting has a sensor that detects light changes (dawn/dusk) and switches the light on or off. Maintenance of our lighting is both hands on and very time consuming which carries costs with it. Currently, SWISCo employ contractors to carryout night scouts on twelve preset routes in the bay to see if there are any lights out at night that may need fixing, whilst also relying on members of the public to report faults with specific streetlights, including lights that are on during the daylight hours or day 'burners'.

6.3. Our lighting inventory is currently controlled by photoelectric cells that bring the lights on when dusk falls and turn them off at dawn. The current issue for the streetlighting team is when these cells fail, the team experience "day burners", which is where a light doesn't switch off and stays on 24 hours a day, until an issue is raised and a contractor is sent to replace the cell. Depending on access to the column (often on busy main roads) and the current work stack, it can take several weeks for an operative to be able to repair the light. This leads to wasted energy and associated carbon emissions. In 2024, there were 91 day burners raised on the streetlighting system, with the average attendance time to repair these faulty streetlights being 17 days, which leads to a waste of 21.7kwh of electricity and 8.7kg of carbon emissions for one lantern.

6.4. As seen in recent years, global events such as the Ukraine war have led to often erratic and fluctuating energy prices in the UK. It has become vital to be able to quickly adapt to these price rises, particularly for our key and high energy consuming assets in order to be more resilient to these external impacts. It is also vital the Council implements innovative solutions that allow them to limit the financial impacts from these events.

6.5. Based on the current streetlighting capabilities, to change our streetlighting dimming regimes would mean an operative attending every one of our 14,794 streetlights at a cost of approximately £20 per unit. This would take 147 days to make the desired changes (based on the assumption that one operative could attend 50 units a day) and importantly, would cost the Council £295,880.

6.6. As this example highlights, our current system is too slow and costly to make changes to our streetlights. Therefore, as a forward-thinking Council, we need to introduce innovative technologies that gives the Council the capacity to react to future events and that permit the Council to implement changes that deliver energy savings through proactive actions.

7. Options under consideration

7.1. Option 1: A business as usual (BAU) approach for our streetlighting inventory. Under this option, the Council continues with the current streetlighting system and processes which are to manually manage our streetlighting assets. This current system is outdated and limited in its capabilities, particularly in being able to implement energy efficient dimming regimes in both a cost effective and timely manner.

7.2. Option 2: To procure and install 3,431 Holophane LED lanterns for the remaining streetlight inventory that have not been upgraded as part of the current streetlighting LED replacement programme. This option would bring the remaining streetlighting inventory up to modern standards in terms of their energy efficiency and can deliver an estimated £151,473 of annual energy savings and 127 tonnes of carbon emissions savings, for a cost of £896,968.

7.3. Option 3: Added to all the benefits of option 2, the implementation of the CMS solution will provide our streetlighting team with the ability to make real time changes to our streetlights and importantly implement a more energy efficient dimming regime in a timely and cost-effective manner. This option will deliver £292,291 of energy savings and save 230 tonnes of carbon emissions, operational savings, create an adaptable system and deliver a range of co-benefits including environmental and health and wellbeing.

8. Financial Opportunities and Implications

8.1. This is additional borrowing of £2,261,870.00 that is being requested in order to make energy savings of £292,291.00 per annum, based on the estimated savings the payback has been forecasted at 12 years. Full explanation in the business case.

9. Legal Implications

9.1. Not Applicable

10. Engagement and Consultation

10.1 The current 10-year Streetlighting Contract is a joint contract between Torbay Council and Devon County Council. After a trial area in Devon with Telensa over the last 2 years, they have had cabinet approval to roll out across Devon, this has been well supported and evidenced by the approval for Devon wide rollout.

10.2 Communications & Stakeholder engagement

Communications plan

Given the nature of this project and impact on a public service, an extensive communications package will be delivered to ensure that all members of the public are aware and given full details of the CMS and the estimated energy and carbon savings. This includes highlighting the numerous co-benefits that CMS provides such as;

- Reduction in energy bills and carbon emissions
- Reduce the impact of ALAN on our unique biodiversity and landscapes

- Reduced impact on public health
- Reassurance on safety considerations

Key messages:

- Torbay will soon benefit from completing the changeover to state-of-the-art new LED street lighting which will not only lower carbon emissions across the Bay but also save money in the long term, saving thousands of pounds over its lifetime.
- The lighting will be centrally controlled and upgrade our remaining streetlights to LED Holophane Lanterns and to procure Telensa' s Control Management System (CMS). The benefit of the lighting being centrally controlled via a laptop is that the brightness can be adapted at the touch of a button.
- Better, more modern streetlighting will also help address anti-social behaviour and reduce the impact on biodiversity from artificial streetlighting.
- A key outcome from the project is that the estimated energy savings from the project can be reinvested into our Council budgets to deliver further improvements to our Council infrastructure and services.
- The new lighting innovation is one of several key infrastructure projects to help reduce the Council's carbon emissions as part of our Climate Change Action Plan.

Audience: Councillors, residents in Torbay, Climate Partnership partners (Member organisations including private, public and voluntary and community sector), community partnerships, Brixham Town Council, SWISCo, Devon and Cornwall Police, Devon and Cornwall Police and Crime Commissioner.

Communications timeline:

- 5 November - Business case goes to CAD – Cabinet and Directors will receive information about the project.
- 18 November – Cabinet – this is the point where the project will become public knowledge so we will coincide the main initial publicity at this point. There will be a Members Briefing to all Councillors (email newsletter update), press release sent out to local media, included on the News page on our website, article in One Torbay and Staff News, social media posts across our channels including Facebook, LinkedIn, Next door and Instagram.
- 16 March 2026 – Installation of the new lighting – follow up opportunity for 'work in progress' photos, video etc for use on social media and in our newsletters.
- 16 November 2026 – Go live date – Press release, photo opportunity with Councillors and staff/contractors, article in One Torbay, social media posts, Members Briefing to update Councillors that the project is now live.

11. Procurement Implications

11.1. A joint-contract procurement was undertaken between Devon County Council (DCC) & Torbay Council in May of 2020. The purpose of this joint-contract was to appoint a supplier to undertake the supply, installation and maintenance of streetlighting apparatus located

within the county of Devon, including the Torbay area. The procurement was undertaken as an Open Procedure due to the value of the nature of the works, and a successful contractor was appointed on 1st July 2020. The current contract expiry date is 30th September 2030.

11.2. The joint contract included a provision for the replacement of the Central Management System (CMS) via the use of a Contract Option located under Section 16 of the contract. Devon County Council have since used this option to undertake CMS replacements across Devon on multiple occasions.

11.3. Torbay Council intend to exercise the same Contract Option to replace the CMS solution currently in place within Devon County Council. This change falls within the scope of PCR 72.(1)(b)(i) where a contract can be modified for additional works, services or supplies, to be carried out by the original contractor, in order to prevent issues arising with regard to interchangeability or interoperability.

11.4. Upon exercising the Section 16 Contract Option, Torbay Council will appoint Telensa Central Management System (CMS) to undertake the works as required.

12. Protecting our naturally inspiring Bay and tackling Climate Change

12.1. This project will provide a significant annual reduction in the Council's energy consumption through the upgrade of our remaining streetlights to more energy efficient LED Holophane lanterns but through the CMS, we can deliver proactive energy efficiency dimming regimes. Through these two solutions, we can make significant annual carbon emissions savings which will support Torbay Councils 2030 Net Zero target.

12.2. There is a growing body of evidence that shows how Artificial Light At Night (ALAN) can have negative impacts on the health of both terrestrial and marine ecosystems. The adaptable programming and control provided by CMS has the potential to allow Torbay to manage our street lighting more sensitively in order to protect our habitats and species. Torbay has the evidence to identify where its most sensitive and important habitats are located. This could be used in conjunction with the CMS solution to allow Torbay Council to adapt the way in which the bay is lit up, whilst being able to respond to its sensitivities and protecting our unique biodiversity, marine ecosystems and landscapes.

12.3. Overall, this project will deliver significant benefits in terms of it tackling climate change based on reducing the Council's energy consumption and carbon emissions whilst also supporting our local terrestrial and marine biodiversity from the effects of ALAN.

13. Associated Risks

13.1. Any delays in getting approval to proceed/fund this project in the 2025/26 financial year will likely cause an increase in costs due to the RPIX price index changing after 1st April 2026, therefore, approval is sought to fund this solution before the start of the 2026/27 financial year.

14. Equality Impact Assessment

Protected characteristics under the Equality Act and groups with increased vulnerability	Data and insight	Equality considerations (including any adverse impacts)	Mitigation activities	Responsible department and timeframe for implementing mitigation activities
Age	18 per cent of Torbay residents are under 18 years old. 55 per cent of Torbay residents are aged between 18 to 64 years old. 27 per cent of Torbay residents are aged 65 and older.	Younger and older people may feel less safe at night. 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 - GOV.UK For the calendar year 2023, the total number of collisions within Torbay in 2024 were 150 for all types, which was down from 191 for 2023 - Road Casualty Reduction Reports - Torbay Council. Older people may feel less safe walking in dimly lit areas, particularly in the evenings	Any negative impacts can be quickly remedied through the capabilities of the CMS system. During the early evening and to support the nighttime economy, bespoke lighting regimes can be implemented for town centre areas in particular taxi areas, road crossings and any other areas that require additional lighting. In addition, higher lighting levels can be put in place in areas with high footfall or near care homes, schools and youth centres.	Highways team – SWISCo

		during the winter months. Young people may be more active at night and affected by reduced visibility. However, there is no evidence that the proposed changes would lead to an increase in actual crime, however they may result in an increased fear of crime - Switching off street lights at night does not increase car crashes and crime | UCL News - UCL – University College London		
Carers	At the time of the 2021 census there were 14,900 unpaid carers in Torbay. 5,185 of these provided 50 hours or more of care.	No effect anticipated. Should there be any issues raised around equality once the lighting regime is in place, can be quickly remedied through the capabilities of the CMS system.	n/a	
Disability	In the 2021 Census, 23.8% of Torbay residents answered that their day-to-day activities were limited a little or a lot by a physical or mental health condition or illness.	This group could be potentially negatively impacted in terms of sensory implications with reduced 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 people with disabilities, and feedback from members of the public will be responded to as appropriately. For vulnerable road users, such as pedestrians, cyclists, motorcyclists, Horse riders, Users of mobility devices, there may an impact in terms of risk from reduced	Any negative impacts or disruptions for those with disabilities within specific streets can be reported to SWISCo who can adjust the streetlighting on a street-by-street basis to accommodate any specific lighting needs. Added to this, the lighting for road crossings, ramps, bus stops and other key accessible routes can have additional lighting to ensure safety of all users	Highways team – SWISCo

		lighting on roads. In terms of road accidents in Torbay, the number of collisions have dropped from 191 in 2023 to 150 in 2024 - Road Casualty Reduction Reports - Torbay Council. This group may have concerns that this will increase their risk of road accidents and collisions from a reduction in lighting particularly on road crossing, ramps and other accessibility routes. However, the proposal to retain lighting, albeit at a reduced level, should help reduce the adverse impacts to some extent.	but can be adapted for those with disabilities to ensure they meet minimum standards for accessibility. To monitor the impacts, complaints and feedback can be monitored to adapt any lighting requirements within specific areas.	
Gender reassignment	In the 2021 Census, 0.4% of Torbay's community answered that their gender identity was not the same as their sex registered at birth. This proportion is similar to the Southwest and is lower than England.	Trans individuals may be disproportionately impacted by this decision as due to their risk of hate crime. They may feel more vulnerable in poorly lit areas due to risk of harassment. There were 151 incidents of hate crime that were gender reassignment orientated in Devon in 2024. Hate Crime | Annual Equality Report 2024 | Devon & Cornwall Police	Any negative impacts can be quickly remedied through the capabilities of the CMS system. As part of the proposed dimming regime, the prioritisation of lighting in known safe spaces and community hubs can be implemented, with community feedback being used to refine lighting where required.	Highways team – SWISCo
Marriage and civil partnership	Of those Torbay residents aged 16 and over at the time of 2021 Census, 44.2% of people were married or in a registered civil partnership.	No adverse impacts are anticipated. Should there be any issues raised around equality once the lighting regime is in place, can be	N/a	

		quickly remedied through the capabilities of the CMS system.		
Pregnancy and maternity	Over the period 2010 to 2021, the rate of live births (as a proportion of females aged 15 to 44) has been slightly but significantly higher in Torbay (average of 63.7 per 1,000) than England (60.2) and the South West (58.4). There has been a notable fall in the numbers of live births since the middle of the last decade across all geographical areas.	No adverse impacts anticipated. Should there be any issues raised around equality once the lighting regime is in place, can be quickly remedied through the capabilities of the CMS system.	N/a	
Race	In the 2021 Census, 96.1% of Torbay residents described their ethnicity as white. This is a higher proportion than the South West and England. Black, Asian and minority ethnic individuals are more likely to live in areas of Torbay classified as being amongst the 20% most deprived areas in England.	People from minoritised ethnic groups may feel less safe at night or fear incidents of discrimination particularly with rising cases of hate crime for refugees and asylum seekers. Hate crime, England and Wales, year ending March 2024 - GOV.UK In Torbay in 2024/25, there were 39 reports of hate crime that were race oriented, up 9 from 2023/24. However, from Devon and Cornwall police figures for 2023, of the 2,100 hate crimes reported, over 48% were motivated by race highlighting that this a major issue for the area. Hate crimes motivated by hostility towards race	Any negative impacts from the proposed dimming regime can be quickly remedied through the capabilities of the CMS system. The lighting around places of worship or cultural centres can be provided with bespoke lighting without compromising safety and equality.	Highways team – SWISCo

		accounted for the largest proportion, with 1,246 crimes — a 26% increase from the previous year - Hate Crime | Annual Equality Report 2024 | Devon & Cornwall Police		
Religion and belief	64.8% of Torbay residents who stated that they have a religion in the 2021 census.	In 2024/25, there were 2 reports of religion-oriented hate crimes reported in Torbay. However, from Devon and Cornwall Police figures for 2023, of the 2,100 hate crimes reported, 128 were religion or belief motivated. Some religious groups may be disproportionately affected by the change in lighting due to cultural practices (e.g., late-night worship). Added to this, some minoritised ethnic communities may fear increased discrimination which has a detrimental impact to their ability to go to places of worship.	Any negative impacts from the proposed dimming regime can be quickly remedied through the capabilities of the CMS system. The lighting around places of worship or cultural centres can be provided with bespoke lighting without compromising safety and equality.	Highways team – SWISCo
Sex	51.3% of Torbay's population are female and 48.7% are male	All groups could potentially be negatively impacted by the dimming of streetlighting due to risk of violence and harassment in particular for women. In the UK, 74% of all victims of domestic abuse and sexual violence crimes recorded by police in the year ending March 2020 were female. This national picture roughly	There is an unequal chance of impact on women suffering increased harassment and violence as a result of this project. To reduce the potential impact, the streetlighting can be maintained on key	Highways team – SWISCo

		aligns with the figures in Torbay between 2018-21, with 72% of victims being female. - final-post-consultation-version-with-foreword-210223.pdf	pedestrian routes to provide additional lighting. Gender-based safety audits can be undertaken to get views on where additional lighting is required. In conjunction with this, working with community safety teams and consider lighting near transport hubs such as train stations, bus stops and taxi ranks.	
Sexual orientation	In the 2021 Census, 3.4% of those in Torbay aged over 16 identified their sexuality as either Lesbian, Gay, Bisexual or, used another term to describe their sexual orientation.	Potential impact of increased hate crime / violence towards the LGBT+ community In 2024, 17% of reported hate crime in Devon was sexual orientation motivated, with 9 hate crime reports in Torbay during the same period. Hate Crime | Annual Equality Report 2024 | Devon & Cornwall Police / Torbay Hate Crimes and Incidents – Q4 2024-25	Any negative impacts can be quickly remedied through the capabilities of the CMS system. As part of the proposed dimming regime, the prioritisation of lighting in known safe spaces and community hubs can be implemented, with community feedback being used to refine lighting where required.	Highways team – SWISCo

Armed Forces Community	In 2021, 3.8% of residents in England reported that they had previously served in the UK armed forces. In Torbay, 5.9 per cent of the population have previously served in the UK armed forces.	There may be an impact on those in the Armed forces community who have disabilities and require additional support.	Any negative impacts can be quickly remedied through the capabilities of the CMS system. Any negative impacts or disruptions within specific streets can be reported to SWISCo who can adjust the streetlighting on a street-by-street basis to accommodate the needs of those with disabilities. Added to this, the lighting for road crossings, bus stops and other key areas will have additional lighting to ensure safety of all users but can be adapted for those with disabilities.	Highways team – SWISCo
Additional considerations				
Socio-economic impacts (Including impacts on child poverty and deprivation)		No effect anticipated.	n/a	
Public Health impacts (Including impacts on		Positive Impact – The reduction in lighting pollution has been shown to reduce the	n/a	

the general health of the population of Torbay)		impact on public health and wellbeing - Light at Night and Disrupted Circadian Rhythms Alter Physiology and Behavior | Integrative and Comparative Biology | Oxford Academic		
Human Rights impacts		No effect anticipated. 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 • A right to life (ensuring that nothing we do results in unlawful or unnecessary/avoidable death).	n/a	
Child Friendly	Torbay Council is a Child Friendly Council, and all staff and Councillors are Corporate Parents and have a responsibility towards cared for and care experienced children and young people.	There is a potential impact of reduced lighting on young people's journeys to school and could impact on their choices about evening activities, which may mean an increase in social isolation for some. Whilst the streetlights will be dimmed, albeit at a reduced level, should help reduce the adverse impacts to some extent.	Any negative impacts can be quickly remedied through the capabilities of the CMS system. The retention of lighting around schools and public spaces, albeit at reduced levels, will mitigate the impact on making these spaces available to young people to access.	Highways team – SWISCo

15. Cumulative Council Impact

15.1. There will be no service impact to the current streetlighting maintenance carried out by the contractor as additional resources will be brought in to deliver Telensa alongside normal routine works.

16. Cumulative Community Impacts

16.1. There will be minimal impact on the community as the works are delivered via mobile works that have minimal disruption to residents or road users.