

Place and Resources Scrutiny Committee

Electric Vehicle Charging Performance For Review and Consultation

Cabinet Member: Cllr. Jon Andrews

Local Councillor(s): n/a

Executive Director: Jan Britton

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Statutory Authority: Dorset Council

Report status: Part exempt

1. **Executive summary (maximum of 500 words)**

- 1.1 This report provides a comprehensive review of Dorset Council's electric vehicle (EV) charging infrastructure programme, assessing its performance, financial implications, and alignment with strategic goals. Since the initial installation of five rapid chargers in 2015, the Council has significantly expanded its network, now supporting 379 public charging devices, 104 of which are Council-sponsored. This places Dorset in the top quintile nationally for total charger numbers, though below average when adjusted for population.
- 1.2 Please refer to Dorset Explorer for a map of EV chargers that have been delivered as part of the programme. Within Dorset Explorer, go to 'Highways' – 'Roadside Assets' – 'EV Charger'. Please note that a small number of chargers that we have facilitated on private land will not show on this map.
- 1.3 The expansion has been driven by a combination of public and private investment, notably through partnerships with Mer and Joju Solar, and supported by national funding schemes including LEVI and ORCS. The infrastructure serves both "destination" and "residential" charging needs, particularly benefiting households without off-street parking.
- 1.4 Key performance indicators show a steady increase in charger usage, reflecting both improved availability and rising EV ownership, which now

accounts for approximately 5% of vehicles. Financial analysis indicates that EV chargers have not negatively impacted parking income. In fact, income has generally increased across sites with chargers, and no significant difference was found compared to control sites. Penalty Charge Notices for misuse of EV bays have also generated modest revenue.

- 1.5 The programme has delivered over 200 sockets across multiple phases, with a total capital investment exceeding £19 million. However, delivery has faced challenges including grid capacity limitations, legal and planning barriers, and site viability—particularly in rural areas. Despite these, the Council has maintained momentum, with ongoing work to install town centre hubs and expand on-street charging.
- 1.6 Environmental and public health benefits are clear. The infrastructure supports the Council's climate strategy by reducing transport-related CO₂ emissions and airborne particulates. It also contributes to economic development by attracting EV users and enhancing the appeal of public spaces.
- 1.7 Looking ahead, Dorset Council is well-positioned to meet future demand, with assets transferring to local ownership post-2035 and significant projected annual revenues by 2040. Continued investment, community engagement, and strategic planning will be essential to ensure equitable access and long-term sustainability.

2. **Recommendation(s)**

- 2.1 To note the performance data outlined in the report that addresses these key lines of enquiry:
 - a. Usage per site- how often it is used, Income generated, power drawn
 - b. The effect on parking income per site
 - c. Funding sources
 - d. Roll out time and delivery progress in comparison to original targets
 - e. Key Performance Indicators and trend analysis and of usage

3. **Reason for the recommendation(s)**

- 3.1 To enable the Place Scrutiny Committee to assess the effectiveness, financial impact, and strategic progress of Dorset Council's electric vehicle charging infrastructure programme, and to inform future decision-making and investment priorities.

4. **Report on EV Charging Infrastructure Performance**

Background

- 4.1 Dorset Council installed 5 rapid chargers using DfT funding in 2015. By 2020 it became apparent that these chargers were insufficient to meet the growing demand for EV charging from residents, businesses, and visitors prompting a decision to use the Central and Southern Electric Vehicle Charging Infrastructure framework to make a direct award to Joju Solar working with their business partner Mer to install EV infrastructure across multiple sites. Public car parks were identified as the most suitable location for EV charging infrastructure serving the dual purpose of offering “destination charging” (charging near facilities such as shops and town centres) and “residential charging” (charging for households lacking off-street parking).
- 4.2 According to predictions made by the Office for Zero Emission Vehicles by 2030 at current rates of growth around a third of cars and light vans will be electric. By 2040, nearly all cars and vans are expected to be electric. As it stands in 2025 EVs make up about 4-5% of small vehicles on the road. It has to be acknowledged that new technologies such as hydrogen fuel cell could also factor in the make-up of future car types.
- 4.3 Since 2021 using funding from various sources but with the largest share (75%) coming from the chargepoint operator Mer, Dorset’s EV charging infrastructure has expanded steadily.
- 4.4 In 2023 Dorset Council was awarded £1.02m Local Electric Vehicle Charging Infrastructure pilot capital funding to install electric vehicle charging infrastructure in rural locations and settlements which currently have limited or no access to local charging.
- 4.5 A further award of £2.49m was made by OZEV in 2024 to support the installation of residential on-street charging infrastructure. This programme supported by private sector funding commences in 2026 and is likely to continue until beyond 2030. The principal aim is to provide EV charging for households without access to off-street parking.

5. EV Charging Infrastructure

- 5.1 According to the latest Office for National Statistics figures the Dorset Council area has 379 public charging devices. Of these 104 are Dorset Council sponsored. Dorset Council ranks in the top quintile for total charger numbers but falls into the lower quintile for chargers per 100,000 residents.
- 5.2 **Usage per site: frequency of use, Income Generated and Electricity Supplied**

See appendix 1 for frequency of use and electricity supplied per site and chargepoint income. Dorset Council currently receive £0.0153 per kW dispensed. The authority has received £31,727 in EV charger income since 2021 to end of April 2025. This figure includes a charging bay fee of £691 (2025) per charging bay currently levied at three sites.

Effect on Parking Income per Site

- 5.3 In Dorset Council public car parks where a parking fee is applied drivers are required to pay for parking during charging.
- 5.4 Parking income could be affected in three ways with the introduction of EV chargers in a car park:
 - ◆ Loss of bays due to charging bays being made wider. Charging bays are made wider to be accessible to all users as per PAS1899 guidelines. Meeting PAS1899 guidelines is considered industry best practice and compliance is a condition of funding for some sites.
 - ◆ Impact on income due to bay underutilisation because of bays designated exclusively for EV charging
 - ◆ Impact on income where the bay is out of use whilst installation works are completed
- 5.5 Parking income at any given time will only be impacted when a car park is at maximum capacity, the charging bays are not in use, and the motorist opts to seek out free parking elsewhere or drives on. If they choose to park in an alternative Dorset Council car park there would be no loss of income.
- 5.6 Car park occupancy data for car parks where EV chargers are situated is available for Woolaston Fields, Top O'Town, and Trinity Street car parks in Dorchester. The data provides occupancy rates every 15 minutes. Data in the table below covers a seven-month period (Jan-July 2025) It shows the number of occasions the car parks were more than 90%, 95% and 100% full. What the data cannot show is how many EV charging bays are being used at any given point in time. Using this method, we can deduce that for these car parks, the impact on parking income due to underutilised charging bays is negligible. Data is not available for any other car parks but if this level of occupancy is mirrored across all car parks, then it is easy to see how unoccupied EV charging bays will have no discernible impact on parking revenue.

					Number of hours in a 7 month period (Jan-July 2025) when car park occupancy was:			
Car Park	Town	Total No. Bays	No. EV Bays	EV Bays as % total Bays	>90%	>95 %	100 %	Percentage of parking time in the period occupation >90%
Wollaston Fields	Dorchester	154	6	3.9%	4.25	2.25	0	0.084%
Top O' Town	Dorchester	216	2	0.9%	14.25	4.5	0.25	0.283%
Trinity Street	Dorchester	120	2	1.7%	7.5	3.25	1	0.149%

Table 1: Car park occupancy

- 5.7 2025 has seen work start on three charging hubs at Rope Walks car park, Bridport, Langton Road car park, Blandford Forum, and Lodmoor car park, Weymouth. All sites have encountered technical and legal issues which has meant the work has continued for longer than expected with bays being closed off for over 6 months.
- 5.8 Langton Road car park, Blandford Forum, makes a good test case. In this car park 10 spaces have been unavailable for parking since January 2025 due to unforeseen technical and legal issues. With 10 fewer bays one might expect parking revenue and car park usage to fall compared to a similar period the previous year. Langton Road car park showed a 13% increase in income despite a 3% reduction in transactions between January-July 2025 compared to the same period the year before. It is inconclusive that the reduction in the number of parking bays has a tangible impact on income.
- 5.9 Parking data is unavailable at parking bay level. Parking Services record the number of transactions (parking episodes) and income by month. Parking income has increased over time as have the overall number of transactions. Where the data was available we compared the number of parking transactions and the level of parking income car parks where EV chargers have been installed to see if there was a difference in levels prior to the devices being installed. In every case car park income increased. The number of car parking payment transactions increased in some car parks and decreased in others over the same period. The data showed no significant difference compared to control sites of car parks where there is no EV charger installed. Parking services report that the number of parking transactions and income can be affected by a range of factors from economic and social factors to seasonal trends in visitor numbers, or from roadworks to weather.

- 5.10 The Transport Planning Team have carried out an extensive online search to see whether there is any empirical research on the impact of EV charging on public car park income but were unable to find anything.
- 5.11 From the data available there is no evidence that car park income is impacted by the installation of EV infrastructure.
- 5.12 Since 2022 Parking Services have issued 154 Penalty Charge Notices for contravention code 71 'Parked in an electric vehicle bay not charging'.

	2021-22	2022-23	2023-24	2024-25	Total
Penalty Charge Notices Issued	0	15	49	90	154
Penalty Charge Notices Paid (value)	£ -	£ 385	£2,415	£4,235	£ 7,035

Funding Sources: Capital Funding

- 5.13 EV infrastructure has been installed in phases. The following table shows the capital funding applied to each phase.

Installation Phase	Approx. Year	Deliverables	Funding Source	Amount (£m)
1	2021-22	52 Sockets, 26 Sites, 6 Rapids, 23 Fast	Private Sector (Mer)	0.50
2	2022-24	64 Sockets, 33 Sites, 2 Rapids, 4 Ultra-rapid,	On-street Residential Charging Scheme (ORCS)	0.20
			Private Sector (Mer)	1.00
3	2023-present	An ongoing programme of work that will deliver up to 150 EV chargepoints when complete	Private Sector (Mer)	1.60
			ORCS	0.10
			Local Electric Vehicle Infrastructure (LEVI) pilot funding	1.02

Installation Phase	Approx. Year	Deliverables	Funding Source	Amount (£m)
			Communi- ty Infrastru- cture Levy (CIL)	0.06
			Section 106	0.05
			Dorset Council Capital (assigne- d, not drawn down yet)	0.60
4	2023- present	An ongoing programme of work to deliver chargepoints in town centre locations in line with growing demand. 12 units delivered to date with 3 charging hubs (total 10 units) to be commissioned by autumn 2025	Private Sector (Mer)	4
5	2025- 2030	1125 on-street fast (7kW) dual headed on-street chargers	LEVI	2.49
			Private Sector (CPO)	8.5
Total Capital Funding All Years/Phases				19.62

Funding Sources: Capability (Revenue) Funding

5.14 Implementation of the above £19.62m programme has seen the delivery team grow from 0.2 FTE in 2021 to its current size of 3.2 FTE in 2025. Since 2023 the delivery team has been funded by Department for Transport LEVI capability funding. Moving forward, the concessionaire for the latest round of LEVI funding will contribute £50,000 revenue funding towards contract management.

Year	Resource (Full-time Equivalent)	Funding (£)	Funding Source
2020-21	0.2	8,000	Transport Planning Team Budget (Internal)
2021-22	0.5	20,000	Transport Planning Team Budget (Internal)
2022-23	0.5	20,000	LEVI Capability Funding (External)
2023-24	2.8	88,362	LEVI Capability Funding (External)
2024-25	2.8	139,699	LEVI Capability Funding (External)
2025-26	3.2	151,895	LEVI Capability Funding (External)

2026-27	3.2	188,091*	LEVI Capability Funding (External)
	Total	616,048	

*funding received includes an unused element to be carried forward to the next year

Roll Out Time and Delivery Targets

- 5.15 Installation of EV charging infrastructure is a relatively new phenomenon therefore working practices, culture and acceptance are still developing. Installations may stall mid-project, sometimes for prolonged periods when hit by unforeseen issues e.g. it is not unusual for the distribution network operator to discover that a point of connection is not where expected or requires upgrading potentially resulting in project delays or abandonment whilst the issue is addressed.
- 5.16 Phase 1 of the programme consisted of relatively straightforward sites that could be delivered swiftly. As each phase has progressed, the delivery has become increasingly complicated. Phase 3 is the programme to deliver up to 150 chargepoints in villages and other settlements. To date this programme has delivered 17 chargepoints (34 sockets). The programme got off to a slow start whilst resourcing and legal issues were resolved but is now gaining momentum. The identification of suitable viable sites remains challenging.
- 5.17 During the last 4 years of the programme the delivery team has faced these key challenges:
- 5.18 Grid Capacity and Power Provision
- Challenge: Many sites have insufficient electrical capacity, requiring costly grid reinforcement.
 - Impact: Delays and increased costs make it harder to meet rollout targets, especially for rapid or ultra-rapid chargers
- 5.19 Funding Constraints
- Challenge: Local authorities often lack both capital and revenue funding to plan, install, and maintain EV infrastructure.
 - Impact: Without dedicated staff or operational budgets, councils face difficulties delivering scalable, high-quality networks
- 5.20 Site Selection and Land Ownership
- Challenge: Identifying suitable sites involves complex negotiations with landowners, businesses, and communities.
 - Impact: This slows down deployment and can lead to suboptimal locations that reduce usage and impact
- 5.21 Planning and Legal Barriers

- Challenge: Planning regulations may not mandate EV infrastructure in new developments, and legal frameworks for public land use can be restrictive.
- Impact: Lack of enforceable planning requirements hinders proactive infrastructure growth

5.22 Rural Accessibility

- Challenge: Rural areas often lack commercial viability for private operators, and installation logistics are more complex.
- Impact: Councils like Dorset must subsidize or directly manage rural installations, which strains resources and slows progress

5.23 Data and Coordination Gaps

- Challenge: Absence of live, open data on charger locations, usage, and status limits strategic planning.
- Impact: Poor data makes it hard to prioritize areas, measure progress, or coordinate with private providers

5.24 Community Engagement and Acceptance

- Challenge: Residents may resist installations due to perceived loss of parking, visual impact, or lack of understanding.
- Impact: Without strong engagement, projects may encounter delays or resistance, especially in heritage or conservation areas

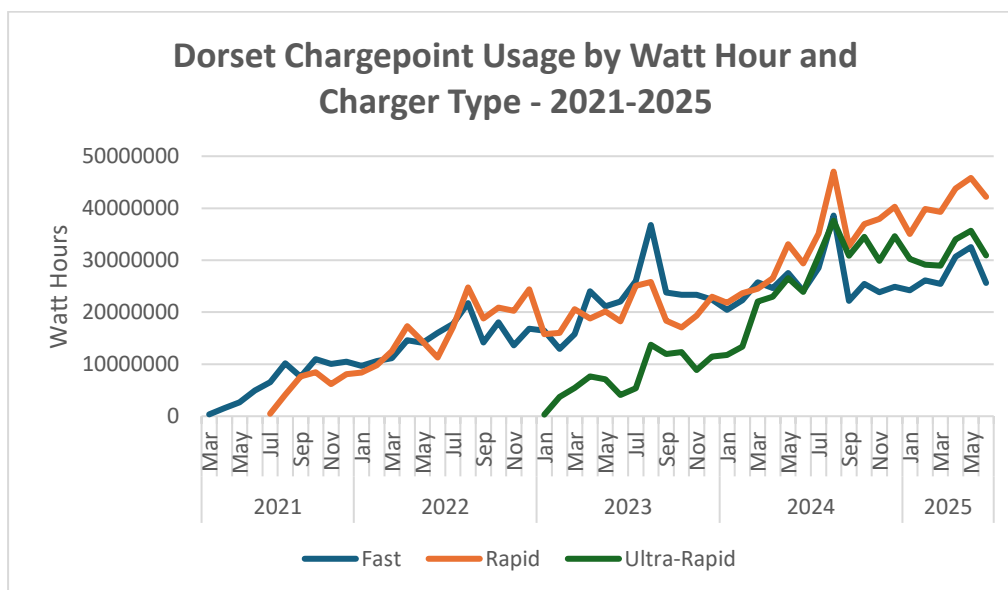
5.25 All the above make delivery targets hard to apply

KPI's and trend analysis of usage

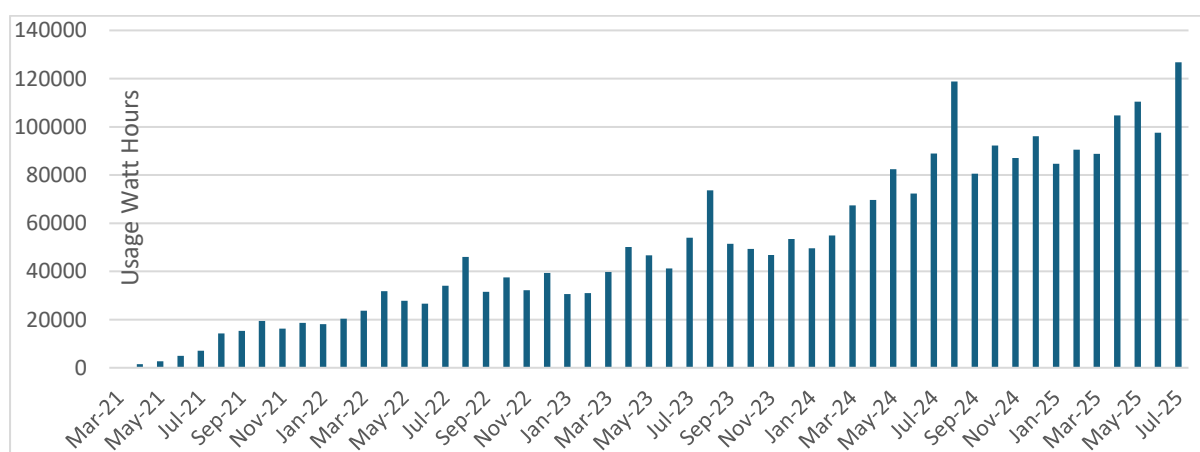
- 5.26 The number of EV sockets installed is a Dorset Council corporate performance indicator. To date we have aimed to install 30 sockets per year. The table below shows that this has largely been achieved except in 2022 when post COVID the programme was hit with EV device supply chain issues:

Year	Number of Units Installed	Number of Sockets/Bays
2021	20	40
2022	6	12
2023	44	86
2024	19	38
2025	15	30
Qtr1	7	14
Qtr2	8	16
Grand Total	104	206

Chargepoint Usage:



- 5.27 The above graph shows that overall charge point usage is increasing. This growth is attributable to both the increased availability of EV chargers but also the steady growth in electric vehicles from less than 1% of cars and vans on the road in 2022 to near to 5% in 2025. On average fast (7-22kW) chargers are used for 2:48 hours per day whilst rapid/ultra-rapids (50+ kW) are used an average of 39 minutes per day. The faster the charger the shorter the “dwell time”. Around 75% of charging episodes take place during daytime



- 5.28 EV Chargepoint Usage: All charger types since March 2021. The above graph shows how usage across all chargers is increasing steadily with regular peaks during the summer months due to the number of visitors to Dorset.

Tracking Real Time Performance

- 5.29 The EV Infrastructure Team have access to the CPO's back-office system which enables them to track charger usage in real time. It is in everyone's interest to ensure uptime is maximised. The below charts are a snapshot of the type of information available. The delivery team meet the installers on a weekly basis to agree progress and address programme issues.



Key performance indicators that will be used for the forthcoming on-street programme can be found in appendix 3.

6. **Alternative options considered**
Not Applicable to this report

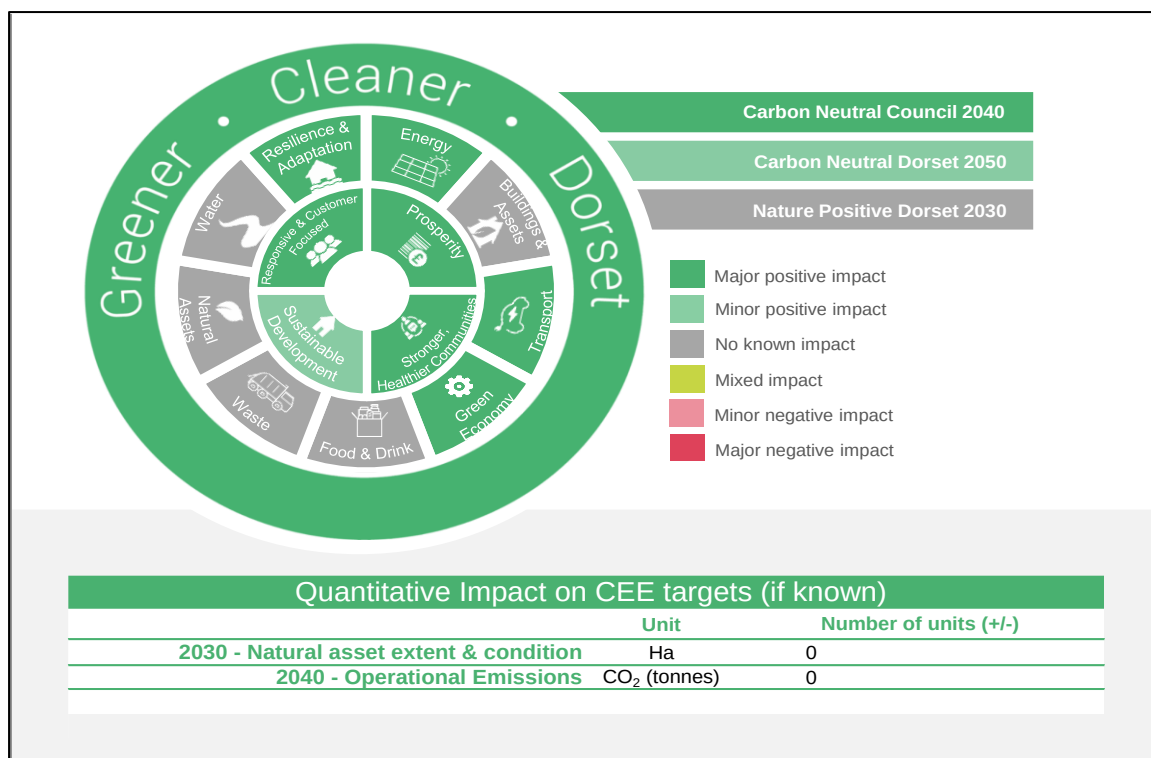
7. **Legal considerations**

None relevant to these key lines of enquiry

8. **Financial implications**

- 8.1 There is no evidence to suggest that EV chargepoints located in Dorset Council car parks have either a negative or positive impact on car park income.
- 8.2 The provision of electric vehicle charging infrastructure will bring in over £19m investment capital into Dorset by 2030. When the current order terms end from 2035 onwards the charging assets transfer to the local authority. If current Department for Transport projections are correct, EVs are predicted to be almost 100% of light vehicles on the road by 2040. A conservative estimate of the annual revenue turnover, of what will be by then Dorset Council owned Electric Vehicle Charging Infrastructure, will be between £35-50m per year at today's prices.
- 8.3 By 2040 it is not unreasonable to assume that a charging bay served by one of the 150kWh ultra-rapids and in use for just 10 hours in a 24-hour period, 365 days per year will generate an annual turnover of around £25,000 at today's prices. This compares to the average parking revenue per bay of just under £800.
- 8.4 A detailed online search using AI concluded that there is no documented evidence that EV chargepoints in public car parks reduce parking revenue. Instead, there are several studies that suggest EV chargers may:
 - Increase customer dwell time and spending
 - Attract higher-income EV users to a locality
 - Enhance the reputation and utility of public spaces
 - Support broader environmental and economic goals
 - Support the local economy by attracting EV-driving tourists

9. **Natural environment, climate & ecology implications**



9.1 The natural environment, climate and ecological decision tool wheel suggests that this project will have a notable reduction in CO₂e emissions particularly in the transport sector. See appendix 1 for accessible table showing the impacts.

9.2 The transport sector is responsible for around a third of all CO₂e emissions. Enabling the switch to electric vehicles is key to reducing these emissions. The Council's Charging Ahead programme and the electric vehicle charging infrastructure it supports is vital for households without access to off-street parking to switch to ultra-low emission electric vehicles, and supports all residents, visitors and businesses now and in the future who will be dependent on electric vehicles.

10. Well-being and health implications

10.1 This project supports the use of ultra-low emission vehicles which lower airborne particulate levels.

11. Other implications

11.1 None

12. Risk implications

12.1 **HAVING CONSIDERED:** the risks associated with this report; the level of risk has been identified as:

Current Risk: Low

Residual Risk: Low

13. Equalities

- 13.1 An EqlA for the installation of public electric vehicle charging infrastructure can be found at [Installation of Electric vehicle charge points \(EVCPs\) EqlA - Dorset Council](#)

14. Appendices

- 14.1 Appendix 1 – Excel Spreadsheet of Usage and other Data
- 14.2 Appendix 2 – Accessible Table showing carbon impacts
- 14.3 Appendix 3 – LEVI Key Performance Indicators

15. Background papers

- 15.1 None

Report sign-off

This report has been through the internal report clearance process and has been signed off by the Director for Legal and Democratic (Monitoring Officer), the Executive Director for Corporate Development (Section 151 Officer) and the appropriate Portfolio Holder(s)

Appendix 2

ACCESSIBLE TABLE SHOWING IMPACTS

Natural Environment, Climate & Ecology Strategy Commitments	Impact
Energy	major positive impact
Buildings & Assets	No known impact
Transport	major positive impact
Green Economy	major positive impact
Food & Drink	No known impact
Waste	No known impact
Natural Assets & Ecology	No known impact
Water	No known impact
Resilience and Adaptation	major positive impact

Corporate Plan Aims	Impact
Prosperity	strongly supports it
Stronger healthier communities	strongly supports it

Sustainable Development & Housing	minor positive impact
Responsive & Customer Focused	strongly supports it