

With agreement of the Chair of the meeting and being of the opinion that the joint report of the Group Director of Prosperity, Development and Frontline Services and the Director of Corporate Estates be considered, in accordance with the provision of Section 100(b)4(B) of the Local Government Act, 1972, as a matter of urgency by reason of special circumstances i.e. the need for the Climate Change Cabinet Steering Group to consider the Council's medium to longer term plans to develop its EV charging infrastructure.

RHONDDA CYNON TAF COUNTY BOROUGH COUNCIL

CLIMATE CHANGE CABINET STEERING GROUP

17 MARCH 2021

ELECTRIC VEHICLE CHARGING INFRASTRUCTURE: DRIVING CHANGE

JOINT REPORT OF THE GROUP DIRECTOR OF PROSPERITY, DEVELOPMENT AND FRONTLINE SERVICES AND THE DIRECTOR OF CORPORATE ESTATES IN DISCUSSION WITH THE CABINET'S CLIMATE CHANGE CHAMPION (COUNCILLOR RHYS LEWIS)

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1. PURPOSE OF THE REPORT

- 1.1 The purpose of the report is to provide the Steering Group with an overview of the Council's medium to longer term plans to develop its EV charging infrastructure which aims to run alongside the wider work of the City Deal on the current situation regarding RCT's potential approach to be adopted for Electric Vehicle (EV) charging solutions across the County Borough and to be used to develop an EV charging strategy for the Council as a whole.

2. RECOMMENDATIONS

It is recommended that the Steering Group:

- 2.1 Note the content of the report and acknowledge that there is a real ambition within the Council to drive change in respect of the EV charging infrastructure across the County Borough.
- 2.2 Agree to continue with the good work already ongoing such as continuing with a trial of EV's for use in the Council's fleet.
- 2.3 Agree that officers develop an EV Charging Infrastructure Strategy to sit alongside a Transport Strategy and future Planning Policies.

- 2.4 Agree that an implementation plan will be developed to deliver projects alongside the Strategy.

3. **BACKGROUND**

- 3.1 In January 2020 the Steering Group received a report on 'Transportation – How Do We Reduce Our Carbon Emissions' which provided an update on the situation regarding carbon emissions and transport and also identified the steps that could be taken to reduce such emissions.

- 3.2 Within the report it was identified that transport accounts for 14% of Wales' carbon emissions and in order to make the sector more resilient, efficient and low carbon in a cost-effective way the report discussed many topics such as; an integrated metro, active travel enhancements, electric vehicles and the charging infrastructure, home to school transport, land use planning, technology, car parking strategies, congestions charging or workplace car park charging and taxation.

- 3.3 As identified in the previous report, the Welsh Government strategy for reducing carbon is set out in Prosperity for All: A Low Carbon Wales; https://gov.wales/sites/default/files/publications/2019-06/low-carbon-delivery-plan_1.pdf

This establishes a commitment to;

....putting Wales at the forefront of a shift towards active travel and a low carbon public transport system which is accessible to all and contributes to liveable and sustainable communities. This is backed by a bold ambition for a zero emissions bus, taxi and private hire vehicle fleet by 2028.

- 3.4 More recently, in December 2020 the Climate Change Committee report The Path to a Net Zero Wales recommended a set of targets to a Net Zero Wales by 2050, which included taking up low carbon solutions for new cars , vans by 2030 and HGVs by 2050. Furthermore, in November 2020, the UK Government announced the end of the sale of new petrol and diesel cars by 2030.
- 3.5 Within the Welsh Governments Strategy, it is forecasted that the take up in electric vehicle usage will accelerate with the Welsh Government supporting investment in electric vehicle charging infrastructure. *Prosperity for All* establishes high level policies covering carbon emissions across the entire Welsh community and economy.
- 3.6 On 25th January consultation closed on a new Wales Transport Strategy, *the first priority of which is;*

Priority 1: reduce greenhouse gas emissions by planning ahead for better physical and digital connectivity, more local services, more

home and remote working and more active travel, so that fewer people need to use their cars on a daily basis.

The long-term stated ambition is for a transport system that responds to the climate emergency including decarbonising each transport mode and facilitating ultra-low emission vehicles.

3.7 RCT is proactive at a regional level through the Cardiff Capital Region City Deal (CCRCD) and the Cardiff Capital Region Transport Authority (CCRTA), as well as driving forward projects and proposals that are more specific to RCT.

3.8 Working with the WLGA; evidence was submitted to the Welsh Government's *Economy, Infrastructure and Skills Scrutiny Committee* regarding *De-Carbonising Transport and Prosperity for All*.

This evidence was presented on 13th November 2020;
<http://senedd.assembly.wales/documents/g5732/Public%20reports%20pack%20Wednesday%2013-Nov-2019%2009.25%20Economy%20Infrastructure%20and%20Skills%20Committee.pdf?T=10>

3.9 By 2030 the total number of licensed electric vehicles (EV) in the UK is estimated to reach 13.6 million and achieve 60% of vehicle market share. The On-Street Residential Grant Scheme- The Office for Low Emission Vehicles (OLEV) has allocated £20m of funding for 2020/21 for on-street residential projects. The funding available is for 75% of the capital costs of procuring and installing the charge point and an associated dedicated parking bay (where applicable).

3.10 The following sections of this report focuses on one aspect of the transport proposal (EV Charging) which will be integral if we are to reduce carbon emissions associated with Transportation.

4. WHAT ARE WE DOING?

4.1 Design briefs for all major projects and 21 Century School Band B projects have been amended to include for the provision of EV charging points in all future projects.

4.2 At Llys Cadwyn, six EV charging points have been installed with ducting laid within the basement for future expansion to avoid too much disruption in the future. More recently we have installed a charging point and additional ducting at the new Hirwaun Primary School which is the first Education Band B project. We also have an EV charging point at Ty

Glantaff for use for the fleet cars however, this is not available to staff/public.

- 4.3 Two recently completed public car park projects have had ducting installed to allow for the future introduction of EV charging systems. The design brief for all new public parking facilities has been amended to incorporate ducting as a minimum together with the installation of EV charging stations if the demand is identified.
- 4.4 Planning Policy Wales 10 (PPW10) provides guidance on Ultra Low Emissions Vehicles (ULEV's) and sets out WG's expectation that the planning system should encourage the provision of ULEV charging points as part of any new development. For non-residential development a minimum figure of 10% of parking spaces to have ULEV charging points has been set. PPW does suggest that LPA's should "take a strategic approach to ULEV charging in their area and, where appropriate develop policies in their development plans and specify local policies".
- 4.5 As previously reported, the Council is currently working with the Cardiff Capital Region City Deal (CCRCD) and the Cardiff Capital Region Transport Authority (CCRTA) to develop a regional approach to the introduction of EV charging infrastructure across strategic Council owned sites and on a strategy to convert all taxis to EV by the Welsh Government target date of 2028.
- 4.6 The CCRTA Taxi Strategy for South East Wales has generated further work across the ten councils and their respective Taxi Licencing teams and taxi operators;
<https://www.cardiffcapitalregion.wales/wp-content/uploads/2019/11/item-6-taxi-strategy-for-south-east-wales-appendix-1.pdf>

Following successfully securing £1.3M of WG funding during 2020/21, a contract has been let to establish a network of EV charging points for taxis across the region, together with a scheme to procure a fleet of wheelchair accessible electric taxis that can be leased to operators on a "try before you buy" basis. Other initiatives to encourage taxi operators to switch from predominantly diesel fleets to electric vehicles will also be rolled out, such as incentivisation schemes and webinars to provide information and support towards the transition to electric vehicles.

- 4.7 The Cardiff Metro Infrastructure Review includes independent review of the area and offers a number of recommendations regarding a way forward which are currently proceeding;
<https://www.cardiffcapitalregion.wales/wp-tent/uploads/2019/02/appendix-3-cardiff-metro-infrastructure-review-cenex.pdf>
- 4.8 Three bus companies; Newport Bus, Cardiff Bus, Stagecoach (Caerphilly) have invested in new electric buses and charging infrastructure and these

initiatives will be expanded further in coming years. An electric charge point for buses is currently being installed at the new bus station at Merthyr. Funding will be sought for further interventions towards more widespread electric bus fleets during 2021/22.

- 4.9 The CCRTA has also been developing proposals to install 22KW charge points at a range of council owned sites across the region; such as public car parks and a bid has recently been submitted to WG for delivery in 2021/22. This will greatly expand the limited opportunities for residents of electric vehicles to charge their vehicles whilst visiting public car parks in RCT and other councils in the region. A list of sites included in the bid is included as Appendix I. The CCRTA is also developing a bid to the Office for Zero Emissions Vehicles, part of the UK Government, to expand this programme with further support and match funding from City Deal – this could provide up to £100,000 per local authority for charging infrastructure.
- 4.10 The Council's own fleet is predominantly diesel based and is regularly reviewed with the intention of moving towards more sustainable forms of fuel as the market for suitable vehicles matures and cost effective and fit for purpose solutions emerge. The Council has been trialling hybrid and EV options as well as monitoring the potential for other sustainable fuel solutions for larger fleet vehicles (such as hydrogen). Also, the RCT Fleet and potential direct EV charger requirements from possible changes (including for Pool car use) is currently being formally evaluated in conjunction with the Welsh Government ULEV project (Ultra Low Emissions Vehicles). The purpose of this project is to identify the measures required to transition to a low emissions vehicles fleet and data gathering commenced in December 2020. The resource for this study is largely provided by Welsh Government (after RCT Council successfully bid for Transition support from WG in the summer) and when completed the report will provide information on the various aspects of road transport emissions and the potential actions to move the area towards the overall Net Zero goals.
- 4.11 We are currently exploring a case study and looking at the feasibility of installing car park solar canopies at one of our leisure centres and have the opportunity to incorporate EV charging points in the scheme if it becomes a live project.

5. WHAT ARE OTHERS DOING?

- 5.1 Consultation for the [Electric Vehicle \(EV\) charging strategy for Wales](#) was issued by WG on 2nd December 2020 and closes for comment on 24th February 2021. After the consultation, the strategy will be accompanied by an Action Plan which will be used to track and manage delivery which will be monitored and reviewed annually. The strategy proposes £30 million investment from the Welsh Government over the next 5 years to deliver the

- aims of the EV Charging Strategy. The strategy aims to support the public sector by providing a common framework for understanding and collaboration.
- 5.3 Of the 22 Local Authorities, it has been established that the majority of LA's in Wales have progressed with some form of EV Infrastructure roll out. There is a range of approaches adopted and whilst some have been successful with OLEV funding bids, others have teamed up with the private sector to deliver their EV ambitions.
 - 5.4 A group of LA's in Gwent are working in partnership to deliver projects to install public car park charging to benefit those with on street parking with 65 EV charging points being installed at 34 sites.
 - 5.4 As previously reported, local supermarkets are now installing EV charging points to allow customers to charge vehicles while they shop. Tesco and Volkswagen have partnered within our area and have charging points in Aberdare and Pontypridd. It is uncertain whether these are available for use outside of normal trading hours of the supermarket.
 - 5.5 Private sector companies such as The Royal Mint Experience, Penderyn Whiskey Distillery, Renault Garage in Cwmbach and the Nissan garage in Treforest have EV charging points available for their customers also. GB Sol is a manufacturer of solar panels in Treforest and they have an EV charging point available for customer use on the Industrial Estate. According to Dept of Transport statistics dated October 2020 there were [13 Public Charging points](#) in RCT as shown on the Map included in Appendix II and included here; <https://www.zap-map.com/live/>.
 - 5.6 The Cwm Taf Morgannwg University Health Board have installed four EV charging points at locations around the County Borough for fleet vehicles but they are not available to staff/members of the public at this point in time.
 - 5.7 Across the UK many other Councils are in an advanced stage of rolling out EV infrastructure providing a mix of open fast charging, charging hubs, EV Fleet and further trials of EV solutions.

6. **WHAT IS THE LIKELY TAKE UP OF AN EV CHARGING INFRASTRUCTURE IN RCT?**

- 6.1 In early 2018, there were 145 Ultra Low Emission Vehicles (ULEV) registered in Rhondda Cynon Taf, compared with 3,275 in Wales and 157,304 in the UK. Across the UK, demand is predicted to rise rapidly with one million ULEVs projected by the early 2020s and as many as nine million by 2030. If realised, and if growth in ULEV ownership continues to rise in RCT at a similar rate to the UK, there could be over 900 ULEVs in RCT by the early 2020s and over 8,000 by 2030.

- 6.2 RCT Council – we need to lead by example, we could incorporate more EV's into our fleet moving forwards and provide a suitable infrastructure to also encourage staff to purchase EV's. Owning an electric car without the ability to charge it at a place of work may deter staff from moving away from the traditional petrol/diesel vehicles.
- 6.3 Public – visitors/residents travelling within the County Borough require a suitable infrastructure to charge their vehicles while at work, shopping or going about other business such as visiting leisure centres. The use of charging stations in public car parks, kerb side, leisure centres, key tourism sites and other publicly accessible sites may be required to meet an increased demand in the future.
- 6.4 Public Sector Organisations – whilst there is some evidence of these organisations rolling out EV's for fleet, there are opportunities for staff and visitors to their sites to benefit from charging facilities.
- 6.5 Private Sector Businesses – privately owned businesses may follow the lead of RCT if we are seen to be encouraging our staff, residents and visitors to switch to EV's. Large organisations located on industrial estates may be encouraged to develop charging stations for their staff and/or visitors which could increase availability to strategically placed sites across the County Borough.
- 6.6 Residents – those living in existing housing stock within the County Borough Council will need to install an EV charging point within their house if they opt for an EV. However, it is recognised that not all houses have access to an off street parking space and some will find it difficult/almost impossible to charge an EV if they live in a terrace and do not have access to a safe means of charging for their property. In this instance, some residents may benefit from charging stations located in RCT car parks, leisure centres or other publicly accessible sites that are open outside of normal operating hours such as those identified in Appendix II.
- 6.7 At the present time, the Council is unable to accommodate requests from individual residents to install charge points in streets with no off-street parking, nor are we permitting requests to allow residents to run charging cables across footways.
- 6.8 Battery technology is rapidly evolving which means that newer electric vehicles have a greater range between charge points. Higher powered charge points are also enabling shorter charge times. The combination of these factors means that “range anxiety” will become less of an issue and the current demand to accommodate private on street charge points or cables should subside.

- 6.9 Commercial – bus companies and taxi companies will have an increasing need to access suitable EV infrastructure, however, this type of use will place a much higher demand on the local electrical supply.

7. WHAT DO WE NEED TO DO?

- 7.1 Whilst the use of electric vehicles is increasing year on year we need to assess the future demand for an EV charging infrastructure in RCT. Future projections indicate that approx. 8,000 EV's will be owned by residents in RCT by 2030. Whilst this is a relatively small proportion of the vehicles within RCT, they clearly need to be supported with a suitable charging infrastructure.
- 7.2 We need to determine the best location and type of charging points across the County Borough. Rapid/Ultra rapid chargers (43 – 350kW) can be located at sites such as short term car parks and transport hubs, Fast chargers (7-22kW) can be located at public buildings such as leisure centres/long stay car parks and Slow chargers (<7kW) can be installed at workplaces/homes. If we are unsuccessful with the OLEV bid referred to above, a map of RCT showing potential EV charging locations is attached at Appendix III. This map is indicative of early considerations but can be developed as part of a strategy moving forwards to take account of the recent OLEV application made for off-street residents parking to ensure there is a suitable geographical distribution of charging points across the County Borough. As demand rises, further consideration of EV charging points at tourist attractions and future park and ride proposals.
- 7.3 The trajectory of growth of EV's in RCT is uncertain at this point in time, both in terms of the number and importantly the location of where these may be parked overnight. If we are unsuccessful with bids for funding for off-street charging facilities mentioned above, it is possible to assess future take up by installing a trial of public charging points in key locations within RCT with a view to obtaining live data on the number of uses, energy consumption, installation and operational costs including any pay-back period if appropriate. For example, we could install Fast charging points in 3 key short term car parks, 3 fast chargers in long stay car parks and a slow charger point in Ty Elai? However, an important point to note at this stage is the impact of the Covid-19 pandemic and the fact that people are not travelling as they once were. Once normality returns, the impact of these trials would be better judged so we must therefore allow sufficient time to enable an accurate assessment of any trials.
- 7.4 We need to identify and prioritise the users of EV and progress with a programme of projects to address their needs. Our approach could be a phased approach looking at the trial sites in the first instance with a natural progression to roll out further infrastructure as and when demand is predicted to rise.

- 7.5 We need to continue working closely on a regional basis and benefit from joint working and available funding to deliver projects that meet the needs of some of the commercial sector such as taxis and buses but ensure that any major projects such as transport hubs are able to maximise the opportunities that may exist in the future.
- 7.6 The Council has commenced a review of its Local Development Plan (LDP). This will consider a) how appropriate land use can reduce the need to travel or b) how land use can influence travel choices. It is proposed that we develop a strategic approach to ULEV charging in our area and develop specific local policies in accordance with PPW10 which has placed a new emphasis on sustainable forms of development.
- 7.7 To pull all of this together, we need to develop an Electric Vehicle (EV) Charging Strategy for the Council with short, medium and long term goals. This strategy would sit alongside new planning policies we adopt within the Council but would need to be reviewed and updated as and when regional initiatives and/or demand for EV changes in the future.
- 7.8 Installation of a suitable EV charging infrastructure will be highly dependent upon the electrical infrastructure in the local areas. Consultation and close working relationships with Western Power Distribution (WPD) will be crucial to determine the wider electrical supply network required to match our needs. It is likely that local substations may require upgrading by WPD to meet the demands of an EV charging infrastructure so we will need to prioritise proposals and ensure programmes include timescales for WPD works.

8. PROCUREMENT

- 8.1 It was previously reported that further work on commercialisation was being concluded and was likely to lead to a procurement process involving numerous councils (and potentially Welsh Government) to secure a commercial delivery partner by the CCCRD. It is hoped this will provide an initial framework of public EV charging points upon which the commercial providers will be expected to develop a wider offer.
- 8.2 Officers are working closely with CCCRD at a regional level and are fully engaged with the regional proposals. However, it is recognised that we need to undertake some local level procurement ourselves to commence the roll out of EV charging across the County Borough – in particular if we begin the implementation of a trial as set out in section 7.3 above.
- 8.3 Numerous national frameworks exist such as the Crown Commercial Service Framework (CCS) RM6213, the ESPO Framework 636 - Vehicle Charging Infrastructure and the SBS/NHS Framework for Electric Vehicle

Charging Points - Reference: SBS/18/JC/ZDC/9317 which give us options to explore the best procurement route(s) to help deliver these short term ambitions.

9. EQUALITY AND DIVERSITY IMPLICATIONS

- 9.1 Equality and Diversity issues will be considered as part of determining the final detail of proposed schemes or emerging strategies.

10. CONSULTATION

- 10.1 There are no consultation requirements relating directly to this report, however, consultation on a future RCT EV Charging and Infrastructure Strategy is likely to be required in order to obtain the views of potential EV users in RCT and help gauge potential take-up now and in the future.

11. FINANCIAL IMPLICATIONS

- 11.1 This report provides information which highlights measures and initiatives that can support the de-carbonisation of transport. Creating the conditions to achieve modal switch to EV's and consider alternative modes of transport will require major capital investment in infrastructure and ongoing enhanced revenue investment in services, along with the strategies to win hearts and minds. Some of the cost may be offset by grants and income from demand management measures but these will generally be more regional in nature.
- 11.2 Actions or policy changes will require further reports which will involve detailed consideration of the financial aspects of any recommendations to include total costs and funding packages.
- 11.3 The Office for Low Emission Vehicles (OLEV) had previously allocated £20M of funding for 2020/21 for on street residential projects, with funding available for 75% of capital costs. They have recently announced a similar scheme for 2021/22 with another £20M being made available and RCT are currently preparing an application to help deliver our ambitions. However, all external funding opportunities will also continue to be investigated as we move forward.

12. LEGAL IMPLICATIONS OR LEGISLATION CONSIDERED

- 12.1 The report provides information regarding an EV charging infrastructure within RCT and actions or policy changes will require further reports which will involve detailed consideration of legal aspects of any recommendations.

13. LINKS TO THE CORPORATE AND NATIONAL PRIORITIES AND THE WELL-BEING OF FUTURE GENERATIONS ACT.

13.1 This report takes account of the UK, national and local priorities in respect of low carbon travel and transport.

13.2 The wider aim this work will reduce carbon emissions and help to clean the air in the County Borough. Developing EV charging infrastructure will also encourage visitors and businesses to a more environmentally friendly Rhondda Cynon Taf. This developing programme of work will contribute to each of the Council's priorities set out its Corporate Plan 2020 -24 [Making a Difference](#).

- Ensuring **People** *are independent, healthy and successful*
- Creating **Places** *where people are proud to live, work and play*
- Enabling **Prosperity** *creating the opportunity for people and businesses to: be innovative; be entrepreneurial; and fulfil their potential and prosper*

13.3 This work will also contribute to each of the three objectives set out in the [Cwm Taf Well-being Plan](#) of the Cwm Taf Public Services Board, in particular contributing to improved health of residents.

13.4 By starting this early work to introduce EV Charging points across the County Borough and Electric Vehicles in its fleet, the Council will maximise its contributions to the seven national goals as set out in the Well-being of Future Generations Act. Our contributions will develop further as our work programme becomes more ambitious.

14. CONCLUSION

14.1 There is a lot of evidence within Wales and the UK where EV charging infrastructure has been rolled out with some Councils in advanced stages.

14.2 By comparison, RCT has not progressed EV charging in the same timescales and now need to drive forward further change to roll out an EV charging infrastructure.

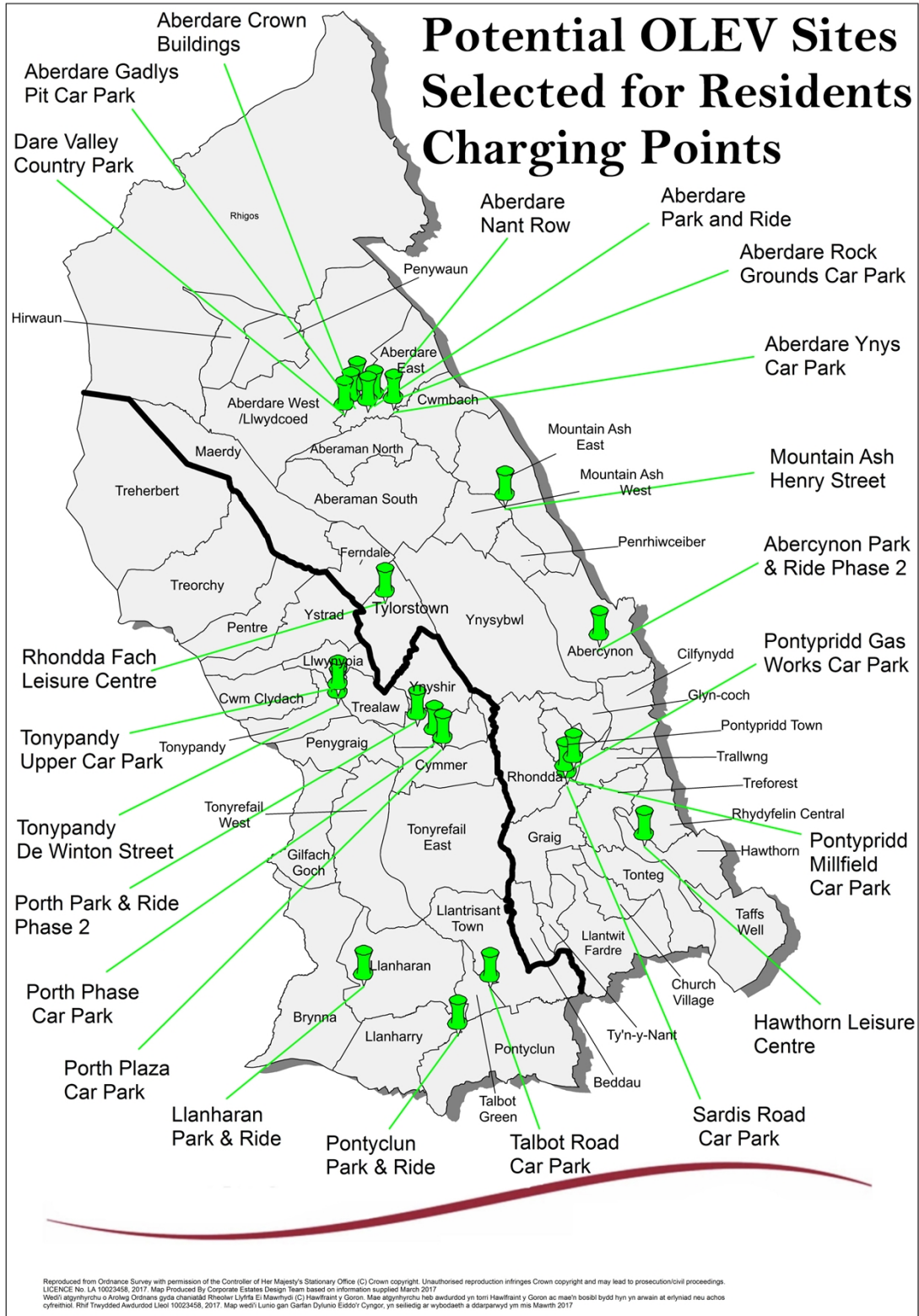
14.3 Our actions need to meet the demands of users within the County Borough.

14.4 The development of an EV Charging Infrastructure Strategy is required together with an implementation plan with short, medium and long term projects identified and funded appropriately.

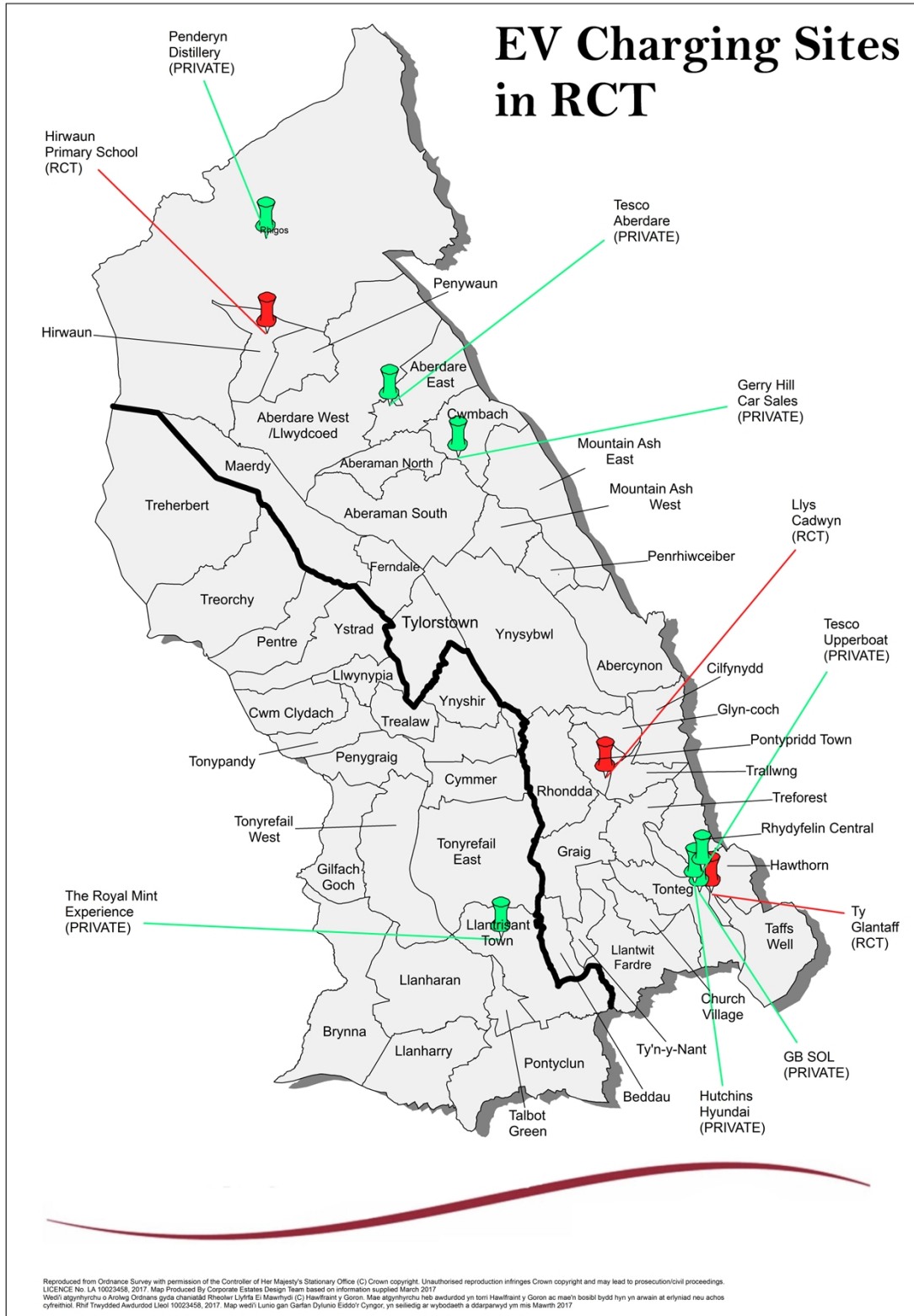
- 14.5 The strategy needs to sit alongside future Transport Strategy and Planning Policies.
- 14.6 We need to continue to work in collaboration with the Cardiff Capital Region City Deal, the Cardiff Capital Region Transport Authority and Welsh Government to introduce:
- i. EV Charging Infrastructure
 - ii. EV Taxis
 - iii. EV Public Bus Services
- 14.7 We need to continue with the trial of low carbon vehicles for our own fleet and introduce a programme for phased implementation of LCV's as appropriate and fit for purpose vehicles enter the market.

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Appendix I



Appendix II



Appendix III

