Item 4

31st January 2023

Glasgow City Council

Environment and Liveable Neighbourhoods City Policy Committee

Report by Executive Director of Neighbourhoods, Regeneration and Sustainability

Contact: George Gillespie, Executive Director Ext: 79106

UPDATE ON PUBLIC ELECTRIC VEHICLE CHARGING INFRASTRUCTURE

Purpose of Report:

To provide Committee with an update on the council's public Electric Vehicle charging infrastructure.

Recommendations:

The Committee is asked to:

1) Note the contents of this report.

Ward No(s):	Citywide: ✓
Local member(s) advised: Yes ☐ No ☐	consulted: Yes ☐ No ☐

1 Introduction

1.1 The First Minister's announcement in September 2017 highlighted the Scottish Government's ambition to phase out all petrol and diesel internal combustion engine (ICE) vehicles in Scotland by 2032.

1.2 In October 2017, the First Minister also announced that Glasgow will become Scotland's first low emission zone (LEZ), further driving the demand for ultra-low emission vehicles (ULEV). The LEZ is now in place with the first phase applying to buses only and all other vehicles, excluding exemptions being included from June 2023.

1.3 Scottish Government outlined in the 2019/20 Programme for Scotland – "Protecting Scotland's Future" that they would work with public bodies to phase out the need for any new petrol or diesel cars and light commercials by 2025.

1.4 Added to this, Glasgow City Council (GCC) announced a state of climate and ecological emergency in May 2019 and has subsequently set a target of net zero carbon by 2030. The routemap for this is set out in Glasgow's Climate Plan, published in June 2021.

2 Background

2.1 Transport accounts for approximately 30% of the City's Carbon Dioxide (CO_2) emissions[1] and 12.4% of the Council's measured emissions[2], hence it is vital that Council fleet, commercial and private vehicles transition to low and zero emission alternatives.

2.2 Although they are not the sole solution to improving air quality within the city and to reducing CO_2 emissions, zero emissions vehicles are a key element when it comes to reducing transport related CO_2 emissions and improving air quality and providing a useful and equitable charging network is essential in supporting the LEZ.

2.3 The transition from fossil fuelled vehicles to electric vehicles requires correct charging infrastructure. Glasgow City Council has been working on this to support the transition as Action 52 of the Climate Plan *"Enable a rapid and strategic shift to electric vehicles through increasing the current rate of deployment of EV charging infrastructure."* and has identified the requirement for a comprehensive, city-wide charge point network to assist in the transition to zero-emissions vehicles. This is particularly required for users without access to off-street parking and charging.

2.4 The council committed to installing 300 chargepoints to act as a catalyst and "kickstart" the transition away from internal combustion vehicles.

---

[1] **UPDATE ON CITYWIDE CO_2 EMISSIONS**
[2] **UPDATE ON GLASGOW CITY COUNCIL CO_2 EMISSIONS**

2.5 In April 2021 the City Administration Committee (CAC) approved the Council's EV charge point policy and the introduction of a tariff and an overstay fee for the electricity consumed in the public electric vehicle charge point network. Due to various issues detailed in Section 6, implementation of the tariff has been delayed. The issues affecting the application of the tariff are being remedied and plans are in place to have the tariff live in financial year 2023/24.

2.6 A paper on Electric Vehicle Charging Infrastructure (EVCI) was previously taken to the Environment, Sustainability and Carbon Reduction City Policy Committee in March 2022. This paper provides an update on the public charging network and plans for its future operation and management.

3. Council Public EV Charging Infrastructure

Current network

3.1 As at December 2022, the council has installed 334 live charge points across 173 units for public use in Glasgow, more than any other Scottish Authority, including off-street hubs and 16 'Rapid' units that will charge most vehicles 80% in approximately 30 minutes.

Table 1 shows the locations and types of these charge points by Ward:

	7kW		22kW		35kW		43kW		50kW		150kW		Total	
	Unit	Bays	Unit	Bays	Unit	Bays	Unit	Bays	Unit	Bays	Unit	Bays	Unit	Bays
01 - Linn	3	6											**3**	**6**
03 - Greater Pollok	1	2											**1**	**2**
04 - Cardonald			1	2									**1**	**2**
04 - Govan	1	2											**1**	**2**
05 - Govan			2	4			1	3					**3**	**7**
06 - Pollokshields	2	4	1	2									**3**	**6**
07 - Langside	6	12	4	9									**10**	**21**
08 - Southside Central	9	18	3	6									**12**	**24**
09 - Calton	5	10	6	13					2	2			**13**	**25**
10 - Anderston/City/Yorkhill	39	77	15	30	1	3	1	3	13	15	1	1	**70**	**129**
11 - Hillhead	4	8	8	16									**12**	**24**
13 - Garscadden/Scotstounhil	6	12	7	14									**13**	**26**
14 - Drumchapel/Anniesland	6	12											**6**	**12**
16 - Canal	8	16	3	6									**11**	**22**
18 - East Centre	3	5											**3**	**5**
19 - Shettleston	1	2											**1**	**2**
20 - Baillieston			2	4									**2**	**4**
21 - North East			1	2					1	1			**2**	**3**
22 - Dennistoun	1	2	1	2									**2**	**4**
23 - Partick East/Kelvindale			4	8									**4**	**8**
Grand Total	**95**	**188**	**58**	**118**	**1**	**3**	**2**	**6**	**16**	**18**	**1**	**1**	**173**	**334**

Table 1 EV Public Charging Units and Charge Points (Bays) by Ward

3.2 All council owned chargers are on the Charge Place Scotland (CPS) network.

Forward Programme

3.3 A further 119 charge points across 63 units for public use are currently planned to go live in 2023.

3.4 Grant funding from several sources including Transport Scotland, Energy Savings Trust (EST) and the Department for Business, Energy and Industrial Strategy (BEIS) has been awarded but the installation programme is subject to procurement, supply chain issues, site surveys and meeting the grant funding conditions and timetables.

Table 2 shows the locations and types of these charge points by Ward:

	7kW		22kW		**Total**	
Row Labels	Unit	Bays	Unit	Bays	**Unit**	**Bays**
Public	44	81	19	38	**63**	**119**
02 - Newlands/Auldburn	20	40	6	12	**26**	**52**
09 - Calton	2	4			**2**	**4**
10 - Anderston/City/Yorkhill	7	7			**7**	**7**
11 - Hillhead	2	4			**2**	**4**
14 - Drumchapel/Anniesland	6	12	4	8	**10**	**20**
18 - East Centre	3	6			**3**	**6**
19 - Shettleston			7	14	**7**	**14**
22 - Dennistoun	4	8			**4**	**8**
23 - Partick East/Kelvindale			1	2	**1**	**2**
15 - Maryhill			1	2	**1**	**2**
Grand Total	**44**	**81**	**19**	**38**	**63**	**119**

Table 2 – Planned Public Charge Units and Charge Points by Ward

4 Benefits

4.1 In the 12 months from January to December 2022, 15.8 thousand unique public driver accounts had used the council's public network in Glasgow for just under 160 thousand sessions, consuming 3.05 million kWh. This is the equivalent of approximately 10.4 million emission free miles[3] and a diversion of approximately 2 thousand tonnes of CO_2[4].

4.2 The expected annual consumption in 2023/24 by the public on the council network, assuming all units in the pipeline have been installed, is around 5 million kWh. It should be noted however that this figure could be impacted by changes in energy costs and consumer behaviour.

[3] Conversion factor of 3.4 miles/kWh
[4] Conversion factor of 120 g/km.

5 Operations and Maintenance

5.1 The council originally launched its network of EV chargers to act as a catalyst to “kickstart” the transition away from internal combustion vehicles to electric vehicles. This innovation was driven by the Sustainability Team within Neighbourhoods, Regeneration and Sustainability (NRS).

5.2 It has now exceeded its commitment of installing 300 charge points around the city and now manages a large scale operation.

5.3 The cost of the electricity consumed by the public on our publicly available network has been 100% subsidised by the council and is estimated to be around £640k in 2022 (including unit rate and various standing charges).

5.4 All units on the network are covered by warranty and maintenance contracts however driver damage and faults at feeder pillars are not covered and add to ad-hoc repair costs.

5.5 Staff resource is required for ongoing liaison with the network operator, Charge Place Scotland and the installers and maintenance contractors.

5.6 Latest analysis suggests that the total annual cost of operating and maintaining the network in 2023 would be £1.35m.

5.7 In order to provide the support needed for this service operation, the day-to-day management of the network will transfer to an operational service team. It is expected that handover will be in early 2023.

5.8 The implementation of a tariff will provide income to support the ongoing management of the operation. Considerations in the setting of a tariff include:

- covering all costs including rising electricity costs; repairs and staff resource.
- aligning the tariff with other local authorities in the Glasgow City Region to minimise “EV tourism” where drivers make longer journeys across authority boundaries to take advantage of lower tariffs.
- setting a rate that will not be a barrier to the private sector entering the market.
- determining an overstay fee to discourage bay blocking and align with existing parking enforcement.

6 Introduction of Tariff

6.1 The City Administration Committee approved the introduction of a tariff for EV charging in April 2021 and this was expected to be in place by May 2021.

6.2 The implementation has been delayed due to the pandemic; staff resource constraints; changes to the network operator who implements the tariffs; the requirement for technical updates to some chargers and the consideration of the payment mechanism. However, these are currently being remedied and all the issues as stated in section 5.8 above have now also been considered.

6.3 A reduction in electricity consumption and the number of charging sessions is anticipated immediately following the introduction of a tariff and usage would be monitored, however the general expectation is for increased demand for charging over the longer term as EV ownership increases.

6.4 Payments for use of the network will be managed through the network provider Charge Place Scotland (CPS) with payment mechanisms including invoicing, webpay and contactless.

6.5 A communication plan will be prepared in advance of the tariff implementation to ensure that users are well informed. This will include update of both the CPS and council websites with useful information, notification via the council's usual social media channels and the addition of signage at charging units. It is expected that this may be 4 weeks in advance of introduction.

6.6 It is envisaged that a tariff will be in place by April 2023.

7 Future Strategy

7.1 On 26 January 2022, The Cabinet Secretary for Net Zero, Energy and Transport made a parliamentary statement setting out the vision for EV infrastructure in Scotland. The new vision places consumers and businesses first and outlines the accessible, affordable and reliable public network required for the future. The vision identifies the need to attract commercial investment to meet surging demand.

7.2 There will be a requirement to facilitate a transition towards mixed economy models and partnering with the private sector wherever possible.

7.3 Transport Scotland planned to engage further on its draft Vison Statement during 2022 with a view to a final Vision Statement being published in the winter of 2022. This is currently still awaited.

7.4 Working alongside Scottish Futures Trust (SFT), Transport Scotland launched a new public electric vehicle charging funding programme in April 2022. It is intended that this fund will provide up to £60 million to local authorities over four years (2022 – 2026), with £30 million coming from the Scottish Government and a further £30 million anticipated to be invested from the private sector. This funding programme replaces the Local Authority Installation Programme (LAIP), which grant funds all Local Authorities for hosting and maintaining charging infrastructure to support the development of ChargePlace Scotland (CPS), the national network of EV charge points across urban and rural locations.

7.5 Glasgow City Council has engaged with Glasgow City Region (GCR) to commission a consultancy report on the EV landscape. This piece of work will assist in determining the various options available and future involvement of the council in EVCI. Officers will engage with consultants through early 2023.

7.6 This will assist the council in determining its future strategy for EVCI and facilitate the update of the council's EV Charging Policy.

7.7 The report will also provide data for submission for a proportion of the national funding mentioned in 7.4 above if this is determined to be required.

7.8 The EV Charging Infrastructure Strategy will be presented to Committee once prepared.

8 Policy and Resource Implications

Resource Implications:

Financial:	Implementation of a tariff is expected to generate revenue to support the ongoing management and growth of the network.
Legal:	There are no legal impediments to introduction of tariff and overstay fees.
Personnel:	Resource to support potential increase in enquiries and financial reconciliation will be required with costs covered by projected increase in income.
Procurement:	No procurement implications. The back-office is an existing service offered by the Nationally procured provider.

Council Strategic Plan: Specify which Grand Challenge (s) and Mission (s) the proposal supports. Where appropriate the relevant Commitment can also be listed.

The actions in this report support the Strategic Plan as follows:

Grand Challenge 3. Fight the climate emergency in a just transition to a net zero Glasgow

- **Mission 1**: Deliver sustainable transport and travel aligned with the city region
- **Mission 2:** Become a net zero carbon city by 2030

Equality and Socio-Economic Impacts:

Does the proposal support the Council's Equality Outcomes 2021-25? Please specify.	Not directly. However, the network, as part of a wider city provision, is critical to supporting the transition to EVs, particularly for users without a dedicated driveway.

What are the potential equality impacts as a result of this report?	An EQIA screening was undertaken and introduction of a tariff approved in April 2021. The tariff will be based on an equitable model that will ultimately improve the network for all.
Please highlight if the policy/proposal will help address socio-economic disadvantage.	Not directly

Climate Impacts:

Does the proposal support any Climate Plan actions? Please specify:	Yes – Ongoing EV network is Action 52 of the Climate Plan. Maintaining an EV network also supports Theme 3 – Health and Wellbeing via lower emissions
What are the potential climate impacts as a result of this proposal?	Maintaining an EV network in the city will assist in the transition from fossil fuelled vehicles and support the reduction of carbon use.
Will the proposal contribute to Glasgow's net zero carbon target?	Yes – the introduction of a tariff will support the route to net carbon by providing ongoing management of the council's existing EV network, further supporting the transition from fossil-fuelled vehicles.

Privacy and Data Protection Impacts:

Are there any potential data protection impacts as a result of this report Y/N	No
If Yes, please confirm that a Data Protection Impact Assessment (DPIA) has been carried out	

9 Recommendations

9.1 The Committee is asked to:

1) Note the contents of this report.