

Report

Report to:	Executive Committee
Date of Meeting:	24 August 2022
Report by:	Executive Director (Community and Enterprise Resources)

Subject:	Electric Vehicle (EV) Infrastructure Proposed Tariffs
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1. Purpose of this Report

1.1. The purpose of the report is to:-

- ♦ provide an update on the status of the Electric Vehicle Charging Infrastructure Network, propose the introduction of tariffs, and set out potential future opportunities for a more commercial approach

2. Recommendation(s)

2.1. Committee is asked to approve the following recommendation(s):-

- (1) agree the information in this report relating to the current and future costs, assumptions and plans associated with operating the public electric vehicle (EV) charge points in South Lanarkshire including future commercial opportunities; and
- (2) agree that tariffs will be set initially and will track the market, increasing energy, and other costs with delegated authority given to the Executive Director, Community and Enterprise Resources to set the initial tariff and make any necessary ongoing tariff amendments.

3. Background / Current Status

- 3.1. The Scottish Government has pledged to phase out the need for new petrol and diesel cars and vans across Scotland by 2032. The National Transport Strategy 2 Delivery Plan and Climate Change Update as published in December 2020 contains several specific proposals to deliver these commitments. UK Government has pledged to end the sale of new petrol and diesel cars (excluding some hybrids) from 2030. Whilst, to date, free electric charging has been offered to incentivise car owners to move to electric vehicles, the ban on fossil fuel car sales means a free fuel subsidy incentive will no longer be necessary.
- 3.2. There are several different funding programmes available to help increase the adoption of electric vehicles and the development of an appropriate EV charging infrastructure network to support this growth. None of these programmes preclude the introduction of tariffs.
- 3.3. The Electric Vehicle Infrastructure Fund (EVIF) has replaced the Local Authority Installation Programme (LAIP) and is an annual funding programme which further develops EV charging network so that EV drivers can confidently travel throughout Scotland, across both urban and rural locations. The programme is funded by the Scottish Government and administered by Transport Scotland.

- 3.4. In 2022/2023, £60,000 has also been made available from this fund to support planning for future delivery of public EV charging infrastructure. The necessary strategy / development work associated with this is progressing and part of this funding is expected to be pooled together with City Region partners to continue progress on a wider regional strategy. The EVIF has been developed to encourage investment in the provision of electric vehicle charging infrastructure.
- 3.5. The public charge points across South Lanarkshire are included within the Charge Place Scotland network. Charge Place Scotland is Scotland's national Electric Vehicle (EV) charging network and is a well-known and established brand owned and developed by the Scottish Government / Transport Scotland.

4. Current Public EV Infrastructure

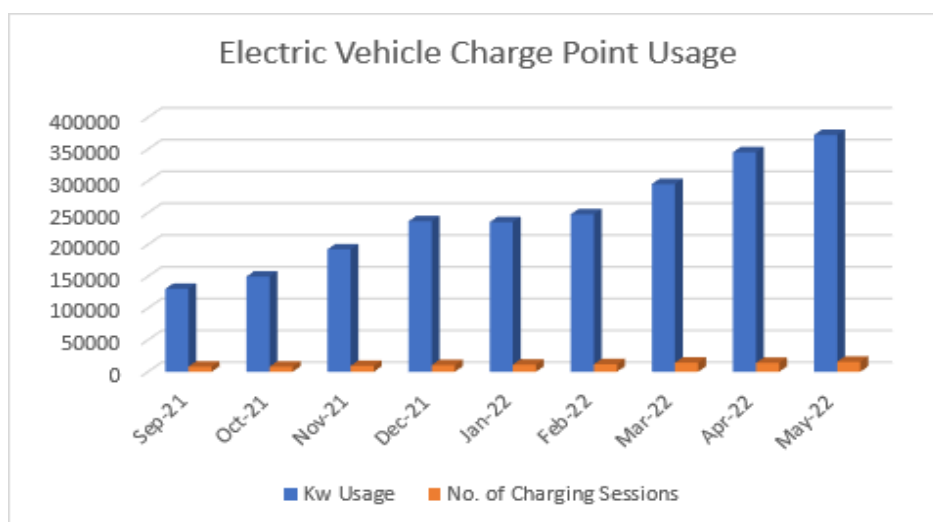
- 4.1. Current EV infrastructure numbers across South Lanarkshire are summarised in the below table with those in brackets representing additional installations in progress.

Dual Outlet Standard (7kW) Charge Points	Dual Outlet Fast (22kW) Charge Points	Dual Outlet Rapid (50kW) Charge Points	Total
58	39 (4)	36 (2)	133 (6)

- 4.2. The existing EV Network has been funded through Scottish Government grants, which also included funding for an initial 5-year maintenance period. The last few years saw the network grow significantly with the delivery of the PACE partner project with Transport Scotland, Scottish Power Energy Networks (SPEN) and North Lanarkshire and we continue to explore ambitious plans through the Levelling Up funding programme.
- 4.3. During the early phases of implementation of EV charge points there was an initial expectation by Transport Scotland that there would be no tariff for users of the EV chargers. This provided initial help to support a wider uptake of electric vehicles. At present, the Council (through Community and Enterprise Resources) pays for energy consumed by all users although there is no defined budget allocation. This includes private sector businesses, Council fleet and any other public sector partners, however it is not presently possible to provide a split of this information and internal Council recharges require to be considered
- 4.4. Electricity costs associated with the EV charge points for the last 3 years demonstrating ongoing additional growth have been: -
- ◆ 2018/2019 - £38,039
 - ◆ 2019/2020 - £43,731
 - ◆ 2020/2021 - £51,470
 - ◆ 2021/2022 - £275,676
- 4.5. The most recent charge point installation was completed in November 2021. Since that time there has been 71,290 charging sessions within South Lanarkshire with a total energy consumption of 1,552,636 kWh. This represents the usage over a full 6-month period from November 2021 through to the end of April 2022. 74% of the electricity drawn was from our rapid (50kW) charge points.
- 4.6. In the 6-month period from the end of January 2021 through to the end of July 2021 there were 7,808 charging sessions within South Lanarkshire with a total energy

consumption of 110,591 kWh. This recent increase therefore demonstrates a fourteen-fold increase in usage.

- 4.7. The gradual increase in electricity costs since 2018/19 is due to increased demand as EV ownership has increased. The significant increase in electricity costs between 2020/2021 and 2021/2022 is due to the overall increase in the cost of electricity and significant increased usage which has also been influenced by the introduction of an additional 80 dual outlet charge points installed as part of Project Pace.
- 4.8. Given the wider strategic commitments to decarbonise the transport network in line with Climate Change targets this will see an ongoing expansion of the public EV charging network. The costs associated with operating and maintaining the charge points will continue to increase. Whilst the initial provision of this electricity at no cost will have aided the initial transition to EV use, continuing to cover the costs of the electricity consumed along with ongoing maintenance costs has created an unsustainable pressure on Council budgets.
- 4.9. Given the planned ban on the sale of petrol / diesel vehicles, it will also not be necessary to incentivise drivers, by way of free electricity, to transition to electric vehicles.
- 4.10. Projected electricity costs for 2022/2023 could be in the region of £715,000. This is based on usage over a full 6-month period from November 2021 through to the end of April 2022 and doubled to represent a full 12-month period. The following graph provides an indication of the growing demand across our network; as noted above this cost is unbudgeted and unsustainable.



5. Tariff Models / Commercialisation

- 5.1. The aim of a tariff model is to move towards a point where the growing EV network and infrastructure is financially sustainable and, as a minimum, covers the costs of the charging opportunity provided to the users of EVs. This would include electricity, maintenance, and where necessary expansion, and replacement costs.
- 5.2. Discussions have taken place with partner organisations including Transport Scotland (TS) regarding implementing a cost recovery model. A move towards charging is being encouraged with TS confirming that future funding support is likely to be conditional on a tariff regime / strategy.

- 5.3. TS also confirmed that Councils have an important role in continuing to create the conditions to attract private sector investment and that the introduction of tariffs for the use of public charge points should be set at an appropriate level. Tariffs will need to recover whole life cost of owning, operating, and replacing charge points and to enable business models that will be supported through the EVIF. The approach to tariffs should be identified as part of any Strategy and Expansion Plans.
- 5.4. Transport Scotland has been working with the Scottish Futures Trust (SFT) to review financing and delivery models in which future investment in Scotland's public EV charging network can be provided. This work has shown that whilst it is necessary to ensure the availability of public EV charging infrastructure continues to grow ahead of demand, there is a need to transition away from the current model to accelerate greater private investment models in Scotland.
- 5.5. Transport Scotland are encouraging 'mixed-economy' approaches to enable the private sector to assume greater responsibility for installation, operation and maintenance of public EV charge points as well as accepting revenue risk. This could be achieved, for example, through five-to-ten-year concession-type agreements with Councils and other public sector partners. The Council also has its own ambitions to develop this approach including the potential for Arm's Length External Organisation (ALEOs) or shared partnerships with private sector.
- 5.6. To facilitate this approach, it is recommended that a tariff be set at such a level that it does not undercut the private sector which would discourage future investment and allows the Council to compete with and remain competitive with the private sector, potentially leveraging in further investment or partnership arrangements.
- 5.7. By way of background, Fastned, a European rapid charging company, has opened its latest EV charging station in the Palace Grounds Retail Park in Hamilton, South Lanarkshire. This facility is the first within South Lanarkshire to have ultra-rapid charge points that have the capacity to add up to 186 miles (300km) of range to all electric vehicles (EVs) in 15 minutes.

6. Current Public Sector Tariffs

- 6.1. A review of tariffs applied across other Councils and the private sector has been undertaken and this demonstrates a complex and varied picture. It is understood that Glasgow City Council will be proposing tariffs during 2022/2023. Locations and tariffs can be viewed at <https://chargeplacescotland.org/live-map>
- 6.2. There are 3 main options for tariffs for EV charge points:
- ◆ Option A - Fixed Rate: A single rate is applied regardless of amount of electricity consumed
 - ◆ Option B - Costs Only: Customers are charged a rate based on the number of units of electricity consumed, which could have a minimum charge and encompass all costs.
 - ◆ Option C - Fixed Rate Plus Costs: A fixed rate is applied to use the charge point and customers are also charged per unit of electricity consumed
- 6.3. After considering the available cost recovery options, it is recommended that Option B offers the most equitable and flexible charging model for the user and the Council. Incorporating all costs to the Council (energy, maintenance, administrative and management) into the cost per unit of electricity consumed allows for full cost

recovery to be borne equally by all customers based on actual usage. Transport Scotland support this tariff model.

- 6.4. Under this current model, the per energy unit cost to the customer will consider the following elements:
- ◆ Cost of energy
 - ◆ Cost of maintenance
 - ◆ Cost of transaction (CPS administrative and management cost)
 - ◆ Employee Costs
 - ◆ Cost of capital (where not fully funded by external grant).
- 6.5. The majority of capital investment costs to date have been provided by Transport Scotland funding grants including for the upgrading of previous EV chargers. At the proper time upgrades and replacement costs will fall to the Council and this has been included in the model. Such capital investment is not expected to continue with a move to a more commercially driven expansion expected to emerge. In the short term though the expansion of the network will be funded through continuing government grants, but that will not continue indefinitely.
- 6.6. Annual maintenance costs are presently covered by agreements and warranties for a period of 5 years from the date of installation. This effectively reduces the maintenance costs to zero until the 5year periods run out, and to date the maintenance cost for the first installations has been zero.
- 6.7. The warranties for seven of the existing charge points are due to expire in December 2022. Thirty-seven warranties are due to expire in 2024 and the remaining 95 in 2025/2026. As we develop our commercial approach and, as existing warranties expire, there could be scope to deliver this type of annual maintenance 'in house' not only for South Lanarkshire, but for other Councils, business, and partners.
- 6.8. Implementing a cost recovery model introduces additional transactional costs for administration and management. When a tariff is applied to charge points, Charge Place Scotland, the 'back office' will collect the revenue generated and forward this to the host (in this case the Council) on a quarterly basis, minus fees. This 'back office' in the future may be a further area that the Council could consider delivering itself.
- 6.9. The City Region consideration of EV tariffs has discussed the potential of a benchmark cost to use 7/22kW charge points being comparable to the costs of charging at home. The intent is to ensure that those without off-street parking and the ability to install a home charge point are not disadvantaged. However, to keep this cost low, the costs to use the 50kW charge points would need to subsidise the use of the 7/22kW units which has the potential to compromise the commercial setting of tariffs.
- 6.10. The tariff for the use of 50kW charge points will therefore be set at a level to compete with and remain competitive with the private sector, potentially leveraging in further investment. It also acknowledges increasing use of rapid chargers by the private sector (e.g., delivery / courier firms, taxi operators).

- 6.11. Tariffs will be set at the time of implementation by the Executive Director, Community and Enterprise Resources, and will be introduced as soon possible should the Executive Committee approve the recommendations.
- 6.12. The initial tariff for the use of 7/22kW charge points will consider the comparable cost to charge at home and the tariff for the use of 50kW charge points will be comparable to existing private sector charge points.
- 6.13. The tariffs will initially be devised to ensure the recovery of costs associated with the operation and management of the EV charger network in South Lanarkshire and to assist in managing wider cost pressures being experienced across Council services and to contribute to a new EV Infrastructure sinking fund.
- 6.14. The tariffs will be set initially and reviewed / tracked regularly throughout the year in line with market changes, as the wider cost of electricity fluctuates and to ensure that the tariffs realistically track costs being incurred.

7. Regulation of Bays

- 7.1. Bay blocking, which is the behaviour of drivers of electric vehicles using charging bays when not charging or remaining in the bay once charging is complete is becoming an increasing problem.
- 7.2. To ensure that charge points are available to all those that need them it is therefore proposed that a restriction of 1-hour maximum stay be applied to rapid charging facilities. The maximum stay for 7/22kW charging points requires to be greater as the time to charge a vehicle can vary greatly using these charge points.
- 7.3. The introduction of a Traffic Regulation Order (TRO) to limit the time permitted to stay in a charging bay and to include an overstay fee in the tariff will be progressed in the usual TRO manner.

8 Employee Implications

- 8.1. There are presently no employee implications associated with the proposals to introduce tariffs, however this will remain under review as we continue to progress and develop our EV commercial or expansion programmes.

9. Financial Implications

- 9.1. Based on similar demands over the last six months the total annual income projection based on the tariff range detailed above is expected to provide a sustainable financial model going forward and would cover the costs of the charging opportunity provided to the users of EVs. This would include electricity, maintenance, and where necessary expansion, and replacement costs.
- 9.2. It should also be noted that demand per charge point remains uncertain, as does the cost associated with electricity. The introduction of tariffs is expected to discourage use of our network to an extent and this may affect the level of income expected, in the short term at least.
- 9.3. A large-scale replacement / refurbishment programme will be required in the future. Such costs will continue to be considered as part of the tariff setting and ongoing review exercise. The creation of a sinking fund to allow a replacement investment programme to be funded is also proposed. Once demand is clearer and tariffs are

established there could also be scope to expand the network using tariff generated income, complementing, in the short term, any continuing external funding sources.

10 Climate Change, Sustainability and Environmental Implications

- 10.1. There are no significant implications in terms of climate change, sustainability and environmental implications associated with this report, however, the delivery of a sustainable financial model for the provision of EV charging infrastructure will encourage greater uptake in terms of low carbon vehicles and contribute to the Council's climate change and wider sustainability ambitions.

11 Other Implications

- 11.1. There are no other significant implications as result of the contents of this report.

12. Equality Impact Assessment and Consultation Arrangements

- 12.1. A screening determination was completed in relation to the Strategic Environmental Assessment (SEA) which confirmed there is no need for a separate SEA for these proposals.
- 12.2. An equality impact assessment (EQIA) has been undertaken during the development of the proposals to identify and mitigate any negative impacts and seek opportunities to promote equality.
- 12.3. The assessment is that the proposals do not have any adverse impact on any of the protected characteristics groups.
- 12.4. No formal consultation is proposed in relation to this proposal, however, the process of implementing tariffs requires notice to be provided to Charge Place Scotland to begin the process of driver notification both electronically to existing members and physically with signage to be applied to EV charge points. Advanced notices will also be erected at EV charge points. Local press and social media channels will also be used to promote the intent to introduce a tariff for charging.

Davie Booth

Executive Director (Community and Enterprise Resources)

3 August 2022

Link(s) to Council Values/Priorities/Outcomes

Values

- ◆ Focused on people and their needs
- ◆ Accountable, effective, efficient, and transparent
- ◆ Ambitious, self-aware, and improving
- ◆ Fair, open and sustainable

Priorities

- ◆ We will work to put people first and reduce inequality
- ◆ We will work towards a sustainable future in sustainable places
- ◆ We will work to recover, progress, and improve

Outcomes

- ◆ Good quality, suitable and sustainable places to live
- ◆ Thriving business, fair jobs and vibrant town centres
- ◆ Caring, connected, sustainable communities

Previous References

- ◆ None

List of Background Papers

- ◆ None

Contact for Further Information

If you would like to inspect the background papers or want further information, please contact: -

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