

## **Introduction of tariffs for Electric Vehicle Charging infrastructure**

**Report by Kevin Anderson Executive Director, Place**

### **Report for Decision**

#### **1 Recommendations**

Council is recommended to:-

- a. support the introduction of tariffs for electric vehicle charging infrastructure hosted by Midlothian Council as a response to increasing usage of the electric vehicle charging points.
- b. Implement the charging structure outlined in 2.6;
- c. Agree that the net projected income of £0.016 million in 2020/21 be added to Council reserves and the 2021/22 budget be adjusted accordingly.

#### **2 Purpose of Report**

Midlothian Council has been providing free electricity for electric vehicles on all EV charging points hosted by the council. The electricity cost for these EV chargers has been rapidly increasing every year, especially at our most popular rapid chargers at Sheriffhall Park & Ride.

Due to the increasing electricity costs it is no longer sustainable for the Council to provide free electricity for public EV infrastructure and Midlothian Council should introduce tariff for electric vehicle charging infrastructure.

**Date** 22 September, 2020

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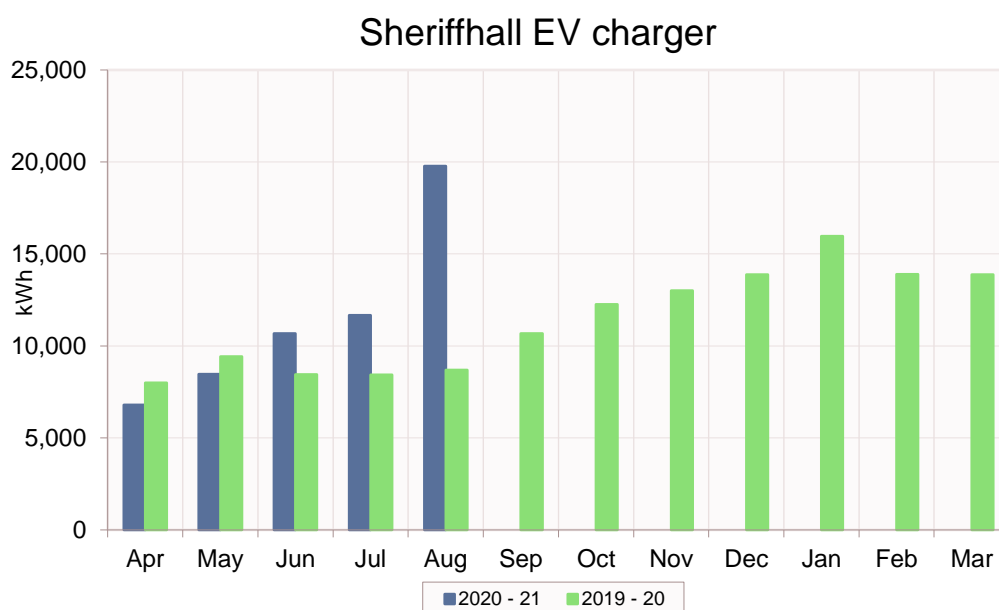
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## 2 Background

### 2.1 Increased usage of chargers

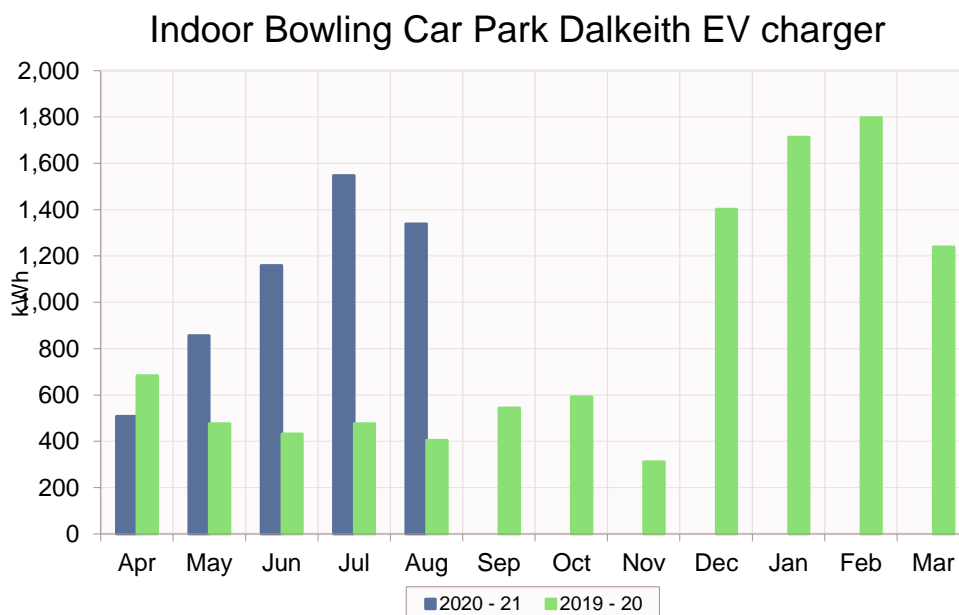
Electric vehicle car (EV) chargers hosted by Midlothian Council have been increasingly used in last two financial years. Figures 1 to 3 show data from 3 charging points, which are separately metered and where data can be analysed. Other charging EV chargers hosted by Midlothian Council have their electricity metered within the main electricity bill for the site, therefore separate kWh data solely for the EV charger cannot be extracted.

The most popular EV charger site hosted by Midlothian Council is Sheriffhall Park & Ride. At this location there are 2 rapid (50kW) chargers (with an additional 2 to be installed in Autumn 2020) and 2 fast (22kW) chargers. The rapid chargers seem to be the most popular since these draw the most kWh, and the increase in usage is the most pronounced at this site. The average kWh drawn per month has almost doubled from 2018/19 (6,274 kWh) to 2019/20 (11,470 kWh). The associated average cost per month increased from £822 in 2018/19 to £1,782 in 2019/20. This accounts for a 125% increase in expenditure in two financial years. It is also important to note that the average price for kWh increase from £0.13 in 2018/19 to £0.16 in 2019/20. The increase in usage can also be seen in recent months, with consumption in August 2020 more than doubling compared to August 2019 (Figure 1).



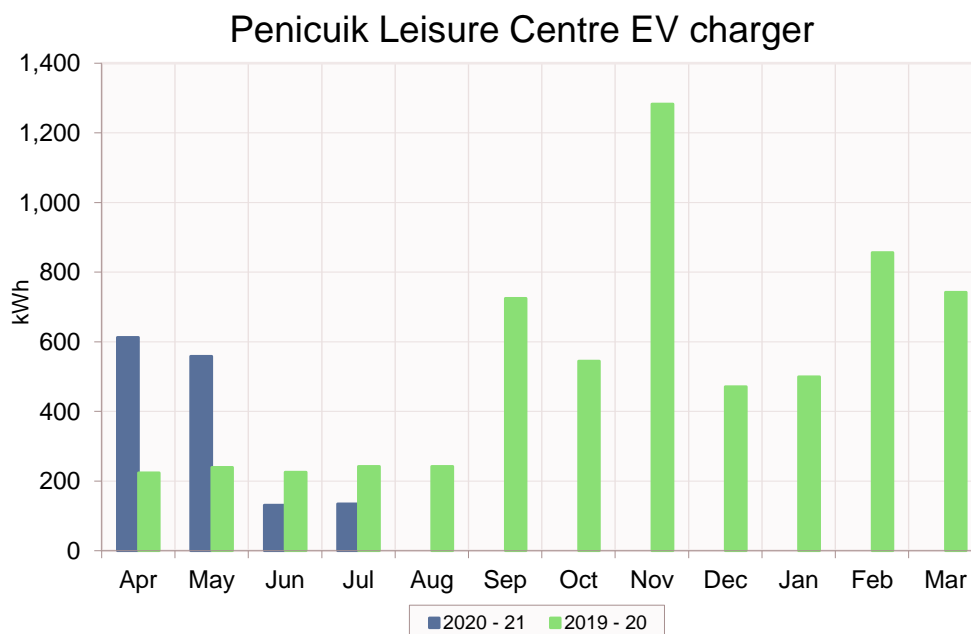
*Figure 1: Increase in kWh used by the electric vehicle charging point at Sheriffhall Park & Ride from year 2019/20 to 2020/21.*

Figure 2 shows electricity usage data for an EV charger at Indoor Bowling Club Car Park, Dalkeith, which hosts 2 fast (22kW) chargers. Compared to Sheriffhall P&R this location is less popular, which is also mirrored in the lower electricity usage than at Sheriffhall P&R. The electricity usage also increased substantially compared to previous year. In July 2020 the usage rose by 70% compared to July 2019.



*Figure 2: Increase in kWh used by the electric vehicle charging point at Croft Street car park from year 2019/20 to 2020/21.*

Figure 3 below depicts kWh usage at Penicuik Leisure Centre EV charger. During April and May 2020 the kWh usage was more than double compared to the previous year. Even though the usage in June and July was slightly lower than last year, it is expected to increase in the future.



*Figure 3: Increase in kWh used by the electric vehicle charging point at Penicuik Leisure Centre from year 2019/20 to 2020/21.*

## 2.2 Tariffs at other Councils in Scotland

Several councils within Scotland have already introduced tariffs for EV charging, which are detailed in Table 1. Other Scottish councils are also in a process of introducing tariffs. The tariffs differ across councils as

there are different models for adopting a tariff. Some councils have chosen to charge a flat tariff for all types of chargers and different connection fee for different type of charger (e.g. Edinburgh City Council). Other councils have chosen to charge more per kWh for the rapid chargers and did not introduce a connection fee (e.g. East Lothian Council). Many councils have also introduced an overstay fee to increase the availability of the EV chargers.

*Table 1: EV charging tariffs for individual Scottish Councils.*

| <b>Council</b>                 | <b>Tariff* (VAT inclusive)</b>   |
|--------------------------------|--|
| <b>Edinburgh City</b>          | 20p/kWh; connection fee: £2 (slow), 30p (fast), £1 (rapid).  |
| <b>East Lothian</b>            | Tariff fee is £1.00 minimum charge (not a connection fee) and £0.30 per kWh (rapid) and £0.16 per kWh (fast & slow) thereafter. An automatic overstay fee applies if charging exceeds 45 minutes (only for rapid). |
| <b>Dundee City</b>             | 15p/kWh; connection fee: 38p   |
| <b>Dumfries &amp; Galloway</b> | £1.50 minimum charge, with 25p/per kWh   |
| <b>Orkney Islands</b>          | £1.00 minimum charge and £0.20 per kWh. There is a penalty charge of £5 if charging exceeds 3 hours.   |
| <b>Moray</b>                   | £3.80 flat fee per charge.   |

### 2.3 Tariffs at private businesses within Midlothian

Other private businesses within Midlothian have also installed EV chargers in their parking lots. The tariffs differ from 15p/kWh at Edinburgh Technopole to 36p/kWh at McDonald's Dalkeith or The Old Colliery Pub & Restaurant.

*Table 2: EV charging tariffs introduced by private businesses with Midlothian.*

| <b>Business within Midlothian</b>                          | <b>Tariff</b> |
|--|---------------|
| <b>IKEA Edinburgh</b>                                      | 30p/kWh       |
| <b>Edinburgh Technopole (Bush Estate)</b>                  | 15p/kWh       |
| <b>The Old Colliery Pub &amp; Restaurant (Sheriffhall)</b> | 36p/kWh       |
| <b>McDonald's Dalkeith</b>                                 | 36p/kWh       |

## 2.4 Study case from East Lothian and recommendations from the Electric Vehicle Association

East Lothian Council introduced EV charging tariffs in February 2020. Their model is as following (sourced from [eastlothian.gov.uk](http://eastlothian.gov.uk)):

- £0.30 per kWh for rapid charger (over 43kW)
- £0.16 per kWh for other destination chargers (22kW and lower)
- Overstay charge of £1 per minute after 45min of charge only for rapid chargers.
- A minimum charge of £1 per session, which would be waived if the session is interrupted.

A cheaper rate for destination chargers (22kW and less) is designed to motivate users to use destination chargers as well to spread the load to all types of chargers. The overstay charge on the rapid chargers also discourages users to block the bay for other users once the charging finished. It is important for users to understand that the EV charging bays are to be used solely for charging EVs and not as a regular parking bay.

The Electric Vehicle Association (EVA) Scotland has also issued guidance on introducing tariffs. This detailed guidance can be found on their website <https://www.eva.scot/>. Their goal is to ensure that host (e.g. Scottish councils) can provide and maintain the service and to encourage the best practice amongst users of the EV infrastructure. EVA Scotland is opposed to introduction of connection fees as these just encourage misuse of the chargers as users tend to maximise their stay to minimise the costs. Instead they recommend a minimum fee (likely £1) to ensure the cost for each session is at least cost neutral for the host. In terms of the unit cost, EVA Scotland is in favour of tiered tariff, which means that higher the rate of energy (e.g. rapid charger) the greater the cost for the kWh. Also, the tariff should be affordable for users without access to home charging.

## 2.5 Charge Place Scotland recommendations

The Charge Your Card (CYC) scheme as a part of Charge Place Scotland is responsible for applying the tariff through their back office. They require 21 days' notice to apply the tariff. The CYC back-office collects the generated revenue and forward this to the host (Midlothian Council) on a quarterly basis, minus fees. Their fees detailed below are applied per charging session:

- Transaction fee: £0.36 (including VAT)
- Banking fee: 2.95% of total cost of charging session (including VAT)
- Merchant fee: 1.50% of total cost of charging session (including VAT)

There is also an option to exclude Midlothian Council staff from the tariff, therefore the tariff would only apply to general public users. Their recommendation is to charge 50% extra of the charge per kWh the council is paying for the electricity, i.e. if the council is being charged £0.20 per kWh, Council's tariff for the public should be £0.30 per kWh.

Other options are for setting up overstay charges and maximum possible amount charged for single session.

## 2.6 Proposal for Midlothian Council

As seen from the EV charging infrastructure, this varies amongst councils and private businesses. Based on the recommendations from East Lothian Council and Electric Vehicle Association (EVA) Scotland, the following terms of EV infrastructure are recommended:

- £0.30 per kWh for rapid charger (over 43kW)
- £0.16 per kWh for rapid and slow chargers (22kW and lower)
- Overstay charge of £1 per minute after 60 min of charge only for rapid chargers (over 43kW).
- A minimum charge of £1 per session, which would be waived if the session is interrupted.

## 3 Report Implications (Resource, Risk, Digital)

### 3.1 Resource

The financial implications in 2020/21 and the first full year thereafter are as follows:-

|  | 2020/21           | 2021/22           |
|--|-------------------|-------------------|
|  | £                 | £                 |
| Estimated Electricity Cost             | 17,741            | 23,109            |
| Existing Budget                        | 16,246            | 16,246            |
| Additional Budget Required             | <b>1,495</b>      | <b>6,863</b>      |
| <br>Total Income                       | <br>21,934        | <br>38,807        |
| less Fees                              | (4,067)           | (6,465)           |
| Income after fees                      | <b>17,867</b>     | <b>32,342</b>     |
| <br><b>Additional Income Generated</b> | <br><b>16,372</b> | <br><b>25,479</b> |

### 3.2 Risk

A failure to introduce tariffs will put further pressures on council budgets.

There is an operational risk of a charger failure as the charger reverts to 'free to vend' therefore it is important that the maintenance contractor responds within the agreed timescales.

### 3.3 Digital

No digital service implications

### 3.4 Ensuring Equalities

There are no equality issues in this service applied to EV chargers.

### 3.5 Additional Report implications (See Appendix A)

## APPENDIX A – Report Implications

### A.1 Key Priorities within the Single Midlothian Plan

### A.2 Key Drivers for Change

Key drivers addressed in this report:

- ☐ Holistic Working
- ☐ Hub and Spoke
- ☒ Modern
- ☒ Sustainable
- ☐ Transformational
- ☐ Preventative
- ☒ Asset-based
- ☐ Continuous Improvement
- ☐ One size fits one
- ☐ None of the above

### A.3 Key Delivery Streams

Key delivery streams addressed in this report:

- ☐ One Council Working with you, for you
- ☒ Preventative and Sustainable
- ☒ Efficient and Modern
- ☒ Innovative and Ambitious
- ☐ None of the above

### A.4 Delivering Best Value

By introducing the tariffs, Midlothian Council will no longer have to cover the electricity costs associated with the EV charging. The tariff will generate a small income to cover maintenance of the EV charging points.

### A.5 Involving Communities and Other Stakeholders

Involvement with Charge Place Scotland.

### A.6 Impact on Performance and Outcomes

The proposed initiative will bring realisable efficiencies in internal processes and help deliver modern and reliable services to Midlothian customers.

### **3.9 Supporting Sustainable Development**

Midlothian Council has been supporting the Scottish Government's efforts to transition from diesel and petrol cars to electric vehicles by providing free charging for the electric vehicles since the first EV charger has been installed. Since the electricity costs for the EV chargers has been increasing rapidly every year, it is no longer sustainable for the Midlothian Council to provide free electricity for the EV chargers.

#### **3.10 IT Issues**

None.

### **4 Summary**

Other Scottish councils have already introduced tariffs. Neighbouring East Lothian Council has introduced their tariff in February 2020: £0.30/kWh for rapid chargers with overstay fee of £1/min after 45 min, £0.16 for other destination chargers with no overstay charge; minimum £1 charge for any charging session.

The Electric Vehicle Association (EVA) Scotland approves of the tariff model East Lothian has introduced and recommends similar tariff model to be placed by Midlothian Council.

The charging proposal for Midlothian Council: £0.30 per kWh for rapid charger (over 43kW); £0.16 per kWh for rapid and slow chargers (22kW and lower); Overstay charge of £1 per minute after 60 min of charge only for rapid chargers (over 43kW).

### **Background Papers:**

**None**