Agenda Item	10
Report No	ECI/19/2021

HIGHLAND COUNCIL

Committee: **Economy and Infrastructure**

Date: **5 May 2021**

Report Title: **Electric Vehicle Infrastructure Network – Tariff Introduction**

Report By: **Executive Chief Officer Infrastructure and Environment**

1 Purpose/Executive Summary

1.1 This paper sets out the business justification for the introduction of a Highland Council electric vehicle (EV) charge point tariff and outlines a proposed tariff structure to recover costs associated with the operation and upkeep of the network.

2 Recommendations

2.1 Members are asked to:

i) Note that Highland Council EV charge points are currently free to use;
ii) Note the business justification as laid out in this paper; and
iii) Approve the introduction of a tariff as of 01 June 2021 in order to:-
- Alleviate an existing revenue pressure through the provision of free charging;
- Bring Highland Council tariff charging policy in line with other Scottish Local Authorities; and
- Ensure vital income to maintain low carbon transport connectivity assets for, and to, our city and rural communities.

3 Implications

3.1 **Resource**:

Personnel - The introduction of the tariff and ongoing management will be administered by existing officers within the EV Infrastructure Team (part of the wider Climate Change & Energy Team).

Financial - Providing free electricity to EV users is a budget pressure for the Council; the introduction of a usage tariff will seek to mitigate this pressure.

3.2 **Legal** - There are no legal implications arising from this report.

3.3 **Community (Equality, Poverty and Rural) -** Introducing a tariff will have a financial impact on those currently utilising the free electricity to charge their vehicles. It may also disincentivise Highland residents from transitioning from petrol and diesel cars to an EV. Several key organisations are undertaking initial analysis to better understand the impact this may have on lower income households; officers will continue to monitor this as part of the recommended annual review process.

Additionally, to help promote equality and ensure sustainable transport solutions are available to everyone, various initiatives are being trialled and developed around Scotland such as electric car clubs, which offer businesses, the public sector, and local communities the opportunity to benefit from shared low carbon transport systems. It is anticipated that electric car clubs will be a critical mechanism if Scotland is to completely decarbonise transport by 2045. Car club access is a great solution for many journeys and can bring significant benefits to householders and businesses by reducing the cost of travel and reduced emissions. By way of example, the roll-out of car club vehicles to replace grey fleet travel for the Council has saved the organisation around £700,000 to date whilst reducing our emissions by around 1,000tCO2e.

3.4 **Climate Change / Carbon Clever** - Introducing a tariff supports the Climate Change and Energy Team vision by using insights, experience, reasoned arguments and evidence to inform policy development for both climate change mitigation and adaptation. By approaching climate focussed projects in a more sustainable way we are ensuring that the infrastructure is maintained over the longer term therefore supporting low carbon transition to a net zero economy.

3.5 **Risk** - The main risk is the level of uncertainties surrounding future EV charge point usage (and therefore cost) of the Highland Council's EV charging network. External influences such as technological developments and actual EV uptake are out with the Council's control however all will shape the usage profile and associated electricity consumption. Additionally, further analysis is required to truly understand post-Covid travel patterns and the impact on usage. Annual reviews on usage profiles, operating costs and electricity consumption are recommended as part of BAU operations to ensure ongoing business justification.

3.6 **Gaelic** – None arising from this report.

4 Background & Progress to Date

4.1 The Scottish Government has pledged to end Scotland's contribution to climate change no later than 2045. All public bodies have a duty to support and work towards this target under the Climate Change (Scotland) Act 2009, as amended by the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019.

Both the Scottish and UK Government have pledged to phase out the need for new petrol and diesel cars and vans by 2030.

4.2 A key project contributing positively towards the above targets is The Highland Council's Local Authority Installation Programme (LAIP). Funded by Transport Scotland, this annual programme further develops the EV public charging network so that EV drivers can confidently travel throughout Scotland – in both urban and rural locations.

The Highland Council has been awarded over £3m since the first EV charge point was installed in 2012 (~£2.1m of which has been awarded since 2018).

The Highland Council currently hosts 50 EV charge points on the public network around the region with additional projects in progress and more planned in the future.

4.3 Committee approval to introduce a usage tariff was obtained as part of an Electric Vehicle Charging - Update report (EDI/85/18) to the Environment, Development and Infrastructure committee on 08 November 2018, and this paper sets out proposals for the tariff structure for Members' approval.

5 Highland Council Charge Point Usage

5.1 Alongside The Highland Council, a number of other organisations and bodies install publicly accessible EV charge points which are registered on the ChargePlace Scotland (CPS) network (Scotland's national EV charging network).

ChargePlace Scotland offer a fully managed service including making charge points visible and accessible to all EV drivers on the network and enabling tariffs to be set and managed through their back-office system.

5.2 The number of individual charging sessions on the Highland Council CPS charging network increased by 19% from 2019 to 2020, indicating a healthy increase in uptake of electric vehicles and additional demand for publicly accessible charging capacity across the network. Nearly 80% of all sessions recorded during 2020 lasted one hour or less.

	2018	2019	2020
No of Charge Points	24	30	50
No of Sessions	12,868	18,793	22,399

Highland Council charge points and charger sessions 2018-20 (Source - ChargePlace Scotland)

To meet future demand, EV charging provision is expected to evolve into a combination of home, workplace, public and private network infrastructure. Technology, operating models and configurations are developing at pace; the profile of how EV users choose to charge their cars will change therefore any strategic planning requires to be appropriately flexible to take account of this. Destination (22kW or less) charge points may make up a larger percentage of charge points on our network (currently 32%) at strategic locations where an EV user is more likely to stay for longer. The future usage of any public EV charging network, including Highland Council, is difficult to predict as it will be subject to a number of factors including;

- Cost
- Convenience and proximity
- Management/operational stability
- User group patterns
- Individual preference
- Reliability of charging infrastructure

External influences (e.g. Covid)

6 EV Charge Point Tariffs

6.1 Currently, no tariff applies for using Highland Council EV charge points. Therefore, EV users can charge their electric vehicles for free. The number of EVs on the roads has doubled in the last year, so the risk in electricity supply will be upwards of those numbers without a tariff in place.

Providing free charging on the publicly accessible network was a condition of previous grant funding from Transport Scotland to encourage the uptake of EVs in order to support carbon reduction targets and the wider climate change agenda.

This is no longer the case and, as future funding is uncertain and expected to decrease or cease altogether, the introduction of tariffs is endorsed by Transport Scotland in order to transition local authorities to a more sustainable operational model.

The use of these chargers incurs several fixed and variable costs. To date the costs have been absorbed by the Council; however, with the network continuing to grow and EV uptake increasing, costs to the Council are expected to follow a similar trajectory.

In 2020, Highland Council's EV charge points incurred electricity supply costs estimated to be in excess of £50,000. Once current and future infrastructure projects are completed, the total number of charge points on the Highland Council network could double by the end of 2021 meaning electricity supply costs could be in the region of £80-100k per annum (the number of EVs on the road in the past year has also doubled, further increasing the cost risk). In the current financial climate, this is a revenue burden the Council can little afford to bear

6.2 Although supportive of the introduction of tariffs, it is important to note that no nationally agreed tariff structure has been set by the Scottish Government or Transport Scotland.

6.3 10 out of the 32 Scottish local authorities have introduced a tariff for using their charge points. Standardisation is improving and Highland Council are able to benefit from the emergent pattern by aligning the model with the majority of the latest tariff adopters. Better intelligence and lessons learned has helped to inform the proposed approach.

Across local authorities, existing tariffs range from a flat rate of £3.80 per session to between 10p-30p per kWh (depending on local authority and charge point type).

Tariff structures also vary among local authorities with some incorporating connection fees, minimum charges and overstay fees.

7 EV Charge Point Tariffs – Highland Council Approach

7.1 It is important to note that the approach taken will require to be reviewed regularly to reflect the evolution of the EV charging network and actual usage patterns as more data becomes available.

7.2 Three common themes for the approach to introducing a tariff were captured whilst conducting research and engagement with stakeholders and our peer network:-

- **Simple** – easily understood for all (Highland Council and EV charge point users);
- **Fair** – enables effective usage patterns for users; and
- **Sustainable** – covers cost as a minimum and is regularly reviewed as data improves

These have been applied as key principles when assessing the options for introducing a tariff.

7.3 A SWOT analysis (included in Appendix 1) has been carried out and was presented to the EV Infrastructure Board for the following 3 options:-

- Option 1: Do nothing;
- Option 2: Incorporate lifecycle costings into tariff pricing structure; and
- Option 3: Develop tariff pricing structure in line with the precedent/guidance already set in Scotland

Option 3 was selected by the Board and taken forward for modelling. This option aligned best with the key principles set out above and the benefits were far higher than the other options.

7.4 The tariff structure proposed will follow precedent set by other local authorities in Scotland to allow consistency to grow within the Scottish public charging network and local authority networks. It follows the broad concepts set out in the Electric Vehicle Association Scotland (EVAS) Tariff Guidance. The EVAS represent the interests of electric vehicle users in Scotland.

7.5 It is proposed any tariff must cover electricity costs and tariff management fees. Any surplus should be reinvested into EV Infrastructure network operations. This tariff is:

Journey (43kW+) Chargers:	Destination (22kW or less) Chargers:
• 30p per kWh • £1 minimum charge • Overstay charge applied after 45 minutes (+15 min grace period, £1/min thereafter)	• 20p per kWh • £1 minimum charge

The above tariff structure is endorsed by the Electric Vehicle Association Scotland. Given the lack of national charging policy, the prices above are based on soft market intelligence. Additional factors have been taken into consideration such as:-

- Other local authority pricing structures and feedback since implementation;
- Current cost to Highland Council for supplying electricity;
- Average domestic electricity tariff;
- Commercial pricing structures; and
- The expectation that current funding streams will continue to decrease/stop over the coming months

Further details can be found in **Appendix 1**.

7.6 It is proposed that the tariff will be reviewed on a minimum annual basis and any adjustment will be evidence driven supplemented by engagement with an external peer network. Existing governance will be used to examine financial reports to ensure the tariff price point remains fair and enables swift action to be taken in the event the tariff fails to recoup costs or surplus levels are excessive. Proposed adjustments will be presented to the EV Infrastructure Board for approval and notified via an update paper to committee.

7.7 The longer-term aim of the Council may be to adopt a full cost recovery model with an aspiration as a minimum, to fully cover all associated costs. It is proposed that this option is explored as part of the review process.

7.8 The tariff will be managed by the Climate Change & Energy Team and governed by the EV Infrastructure Board.

8 EV Bay Management – Highland Council Approach

8.1 Proper use of EV bays and charge points is essential in order to operate an efficient and reliable network. A range of EV bay etiquette guides are available to EV users online and measures for controlling usage of the bays will continue to develop as EV uptake increases and we learn more about usage patterns and user groups.

8.2 Highland Council EV bays are classified as follows:-

Highland Council EV Bay Classification
Highland Council EV bays are not classed as parking spaces therefore no parking charges apply.
Leaving an electric vehicle in an EV bay is permitted for the purposes of charging an EV only.
Once charging is complete or the maximum stay period expires, the bay must be vacated.
This classification will be reviewed to reflect the evolution of the EV charging network and usage.

8.3 To enable the charge point types to be utilised in the most efficient and effective way, it is proposed that EV bay usage will be managed/controlled in the following way:-

Charge point Type	**Control Measure**		
	Max Stay Period	No Return Period	Misuse of bays
Journey (43kW+)	45 minutes (+ 15 minute grace period)	30 minutes	• Only EVs should occupy EV bays • EVs must be charging whilst occupying an EV bay
Destination (22kW or less)	Not currently applied		
Penalty	£1/minute overstay charge (up to a maximum of the Local Penalty Charge Notice). This is intended to be administered automatically through the ChargePlace Scotland back office system, alongside the tariff. Currently, only a fixed overstay amount per fixed overstay period can be collected. This will be reviewed as the back office functionality evolves.	Policed by Parking Enforcement Officers. Penalty Charge Notice as per the Highland Council Parking Policy applies	

The management and control of EV bays will be regularly reviewed with any proposed changes evidence-based through data gathering and engagement exercises. This will be predominantly to ensure that provision meets demand well and that high usage charge points in particular are utilised in a fair way by EV users.

8.4 The above EV bay management approach is endorsed by the Electric Vehicle Association Scotland.

9 Communication

9.1 To help embed the concept of transitioning to EVs among the public and within communities, it is important that common and simple terminology is used to describe EV charging infrastructure.

An increasingly common way to describe familiar charge point types is as follows:-

Journey Chargers:	Destination Chargers:
• 43kW+ • Often referred to as 'rapid' • Common units are 50kW	• 22kW or less • Often referred to as 'slow', 'standard' or 'fast' • Common units are 7kW and 22kW

Precedent has been set by East Lothian Council in adopting these simplified terms. This approach is widely supported among key user and stakeholder groups (including the EVAS).

It is recommended that Highland Council also adopt this terminology and build on the good practice set by helping to provide a consistent message for EV users across Scotland.

9.2 There will be 4 key communication channels to support the introduction of tariffs, they are:-

1. Official press release and associated social media announcements in the weeks leading up to the introduction (this will be disseminated among an established peer network in an effort to maximise coverage).
2. Tariff and bay management information will be available on the CPS map which is the official data source for the charging network.
3. Clear, consistent signage will be rolled out on current charge point sites outlining the tariff and bay management approach.

Current information will be available on the Highland Council website.

10 Next Steps

10.1 Following committee approval, we will make sure that the introduction of a tariff is clearly communicated as set out in **Appendix 1**.

Designation: Executive Chief Officer Infrastructure and Environment

Date: 29 March 2021

Author: Jackie Sayer, EV Infrastructure Project Manager

Appendix 1

Electric Vehicle Charging Points: Proposed Approach to Tariff Implementation

Supporting Paper

IMPORTANT NOTE: The approach taken will require to be reviewed regularly to reflect the evolution of the EV charging network and actual usage patterns as more data becomes available.

1. Background

The Scottish Government has pledged to end Scotland's contribution to climate change no later than 2045. All public bodies have a duty to support and work towards this target under the Climate Change (Scotland) Act 2009, as amended by the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019.

Both the Scottish and UK Government have pledged to phase out the need for new petrol and diesel cars and vans by 2030.

In October 2020, The Highland Council published an Electric Vehicle (EV) Infrastructure vision to support and accelerate its contribution to these targets.

> ***Vision**: Factoring in the unique challenges of the region, we will deliver Highland solutions for Highland challenges. Our ambition is to create Scotland's greenest transport system across its largest area.*

A key project contributing positively towards the national targets is The Highland Council's Local Authority Installation Programme (LAIP). Funded by Transport Scotland, this annual programme further develops the EV public charging network so that EV drivers can confidently travel throughout Scotland – in both urban and rural locations.

The Highland Council has been awarded over £3m since the first EV charge point was installed in 2012 (~£2.1m of which has been awarded since 2018).

2. The EV Charging Network

ChargePlace Scotland Network

ChargePlace Scotland (CPS) is Scotland's national EV charging network to which most Scottish Local Authority owned charge points are connected, as required by Scottish Government under grant offer conditions used to part or fully fund the purchase, installation and maintenance.

The CPS network has grown from 55 public charge points in 2013 to over 1,500 in 2020. The Highland Council's Electric A9 installation at Fountain Road, Golspie was celebrated by way of a press release as it pushed the total charge points on the CPS network to over 1500.

All publicly available charge points are displayed on a live map which provides details about the location, type, status and availability of each unit.

From July 2021, SWARCO eVolt will take over from Charge Your Car as the CPS network back office operator.

The Highland Council Charging Network

Prior to 2020, the Highland Council public EV charging network consisted of 30 charge points. By the end of 2020 this had increased to 50. Once the current programme is complete the Highland Council public EV charging network will have close to 100 charge points connected.

This rapid progress has been as a result of more focussed, strategic planning enabling streamlined and confident delivery which has been underpinned by the development and implementation of a strategic control plan (SCP). The SCP established a vision, values and focus areas along with structured governance through the initiation of the EV Infrastructure Board.

The number of individual charging sessions on the Highland Council CPS charging network increased by 19% from 2019 to 2020, indicating a healthy increase in uptake of electric vehicles and additional demand for publicly accessible charging capacity across the network. Nearly 80% of all sessions recorded during 2020 lasted one hour or less.

	2018	2019	2020
No of Charge Points	24	30	50
No of Sessions	12,868	18,793	22,399

Table 1: Number of Highland Council charge points and charger sessions 2018-20 (Source - ChargePlace Scotland)

To meet future demand, EV charging provision is expected to evolve into a combination of home, workplace, public and private network infrastructure. Technology, operating models and configurations are developing at pace; the profile of how EV users choose to charge their cars will change therefore any strategic planning requires to be appropriately flexible to take account of this. Destination (22kW or less) charge points may make up a larger percentage on our network (currently 32%) at strategic locations where an EV user is more likely to stay for longer.

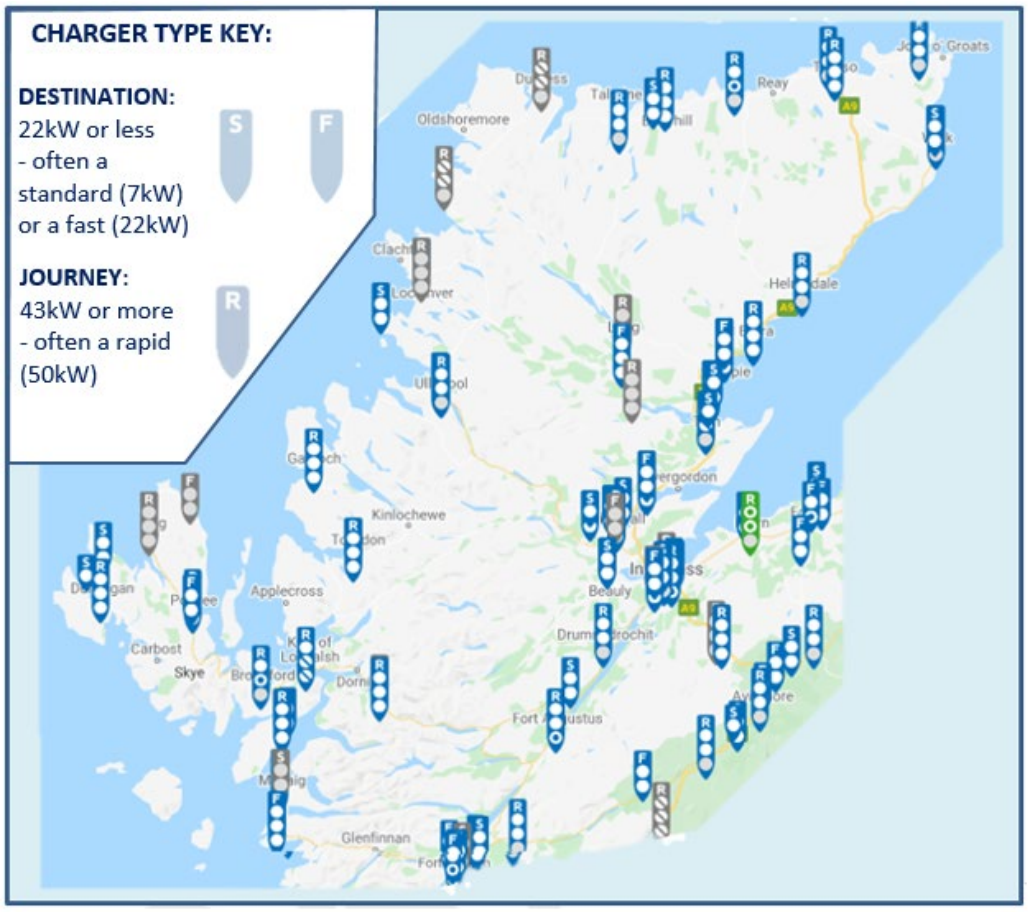

Image 1: The ChargePlace Scotland network map

Additionally, to help promote equality and ensure sustainable transport solutions are available to everyone, various initiatives are being trialled and developed around Scotland such as electric car clubs, which offer businesses, the public sector, and local communities the opportunity to benefit from shared low carbon transport systems. It is anticipated that electric car clubs will be a critical mechanism if Scotland is to completely decarbonise transport by 2045.

Car club access is a great solution for many journeys and can bring significant benefits to householders and businesses by reducing the cost of travel and reduced emissions. By way of example, the roll-out of car club vehicles to replace grey fleet travel for the Council has saved the organisation around £700,000 to date whilst reducing our emissions by around 1,000tCO_2e.

3. SWOT Analysis of Options

Three common themes for the approach to introducing a tariff were captured whilst conducting research and engagement with stakeholders and our peer network:

- **Simple** – easily understood for all (Highland Council and EV charge point users)
- **Fair** – enables effective usage patterns for users
- **Sustainable** – covers cost as a minimum and is regularly reviewed as data grows

These have been applied as key principles when assessing the options for introducing a tariff.

Option 1: Do nothing

Strengths	Weaknesses
• No action required • Free EV charging from Highland Council charge points	• Cost to Highland Council • Use profile will create illusion of demand with potential to drive over investment in infrastructure in some locations.
Opportunities	**Threats**
• Can review in future when market is better developed, and more robust dataset exists	• Costs will increase as lockdown lifts, EV uptake increases and usage remains free • Unsustainable model could affect funder confidence and negatively impact funding bids • Unsupported by other charge point owners who have introduced tariffs close to Council installations

Option 2: Incorporate lifecycle costings into tariff pricing structure

It is estimated that the gross replacement cost of the **units only** would be in excess of £1m.

Strengths	Weaknesses
• Introduction of tariffs support by Transport Scotland • Recoup costs over lifetime of the asset • Potential to introduce a fully sustainable model	• Highly speculative pricing structure • New costs to EV users • Cost to EV users will be high • Would be based on unstable modelling predictions • High level of uncertainties = high risk model • No precedent set • Creates inequitable pricing for residents without access to home charging, likely to impact most on the least affluent.
Opportunities	**Threats**
• Reinvest into long term retention/expansion of network • Can be reviewed to reflect change of market	• Resource intensive modelling work required including specific expert input • Approach likely to be attacked by users and stakeholder groups • Discourage EV uptake • Attract negative publicity • Weak model would attract high level of criticism

	• Reputational damage • Likely to be higher unit price than fossil fuel vehicles • Uncertainty surrounding future asset management and ownership remains high

Option 3: Develop tariff pricing structure in line with the precedent/guidance already set in Scotland

Strengths	Weaknesses
• Supported by Electric Vehicle Association Scotland (EVAS - community interest company which represents the interests of EV users in Scotland) • Follows precedent already set by several other Scottish Local Authorities • Complies with guidance produced by EVAS • Recoups electricity costs and transaction fees • Surplus will be used for maintenance and upkeep • Introduction of tariffs support by Transport Scotland • EV users may be encouraged to charge at home enabling best utilisation of the infrastructure	• New cost to EV users • May fail to recoup costs • High level of uncertainties = high risk model
Opportunities	**Threats**
• Improve network through reinvestment • Introduction of consistent approach could boost funder confidence and positively impact funding bids • Annual review would ensure costs incurred can be evaluated and tariff adjusted accordingly • Higher quality data on usage will help inform future infrastructure business cases	• Usage could reduce as free charging is no longer available leaving charge points under utilised • Costs may be higher than the income generated • Attract negative publicity
Recommended Option: *Option 3: Develop tariff pricing structure in line with the precedent/guidance already set in Scotland*	

The longer-term aim of the Council may be to adopt a full cost recovery model with an aspiration as a minimum, to fully cover all associated costs. It is proposed that this option is explored as part of the review process.

4. EV Charge Point Tariffs

Currently, no tariff applies for using Highland Council EV charge points. Therefore, EV users can charge their electric vehicles for free. The number of EVs on the roads has doubled in the last year, so the risk in electricity supply will be upwards of those numbers without a tariff in place.

Electricity Costs: *In 2020, Highland Council's EV charge points incurred electricity supply costs estimated to be in excess of £50,000. Once current and future infrastructure projects are completed, the total number of charge points on the Highland Council network could double by the end of 2021 meaning electricity supply costs could be in the region of £80-100k per annum (the number of EVs on the road in the past year has also doubled, further increasing the cost risk). In the current financial climate, this is a revenue burden the Council can little afford to bear.*

10 out of the 32 Scottish local authorities have introduced a tariff for using their charge points. Standardisation is improving and Highland Council are able to benefit from the emergent pattern by aligning the model with the majority of the latest tariff adopters. Better intelligence and lessons learned has helped to inform the proposed approach. A summary of various tariff structures in operation is shown in the table below:

Local Authority	Year Introduced	Tariff (destination)	Tariff (journey)	Unit or flat rate cost?	Additional info
Moray Council	2018	£3.80	£3.80	Flat rate	
Dumfries and Galloway	2019	£0.25	£0.25	kWh	£1.50 minimum charge
Dundee	2019	£0.15	£0.15	kWh	Connection fee £0.38
Orkney	2019	£0.20	£0.25		£1/2 minimum charge Overstay fees apply
Aberdeen	2020	£0.19	£0.19	kWh	Connection fee £0.38
Fife	2020	£0.15	£0.15	kWh	Connection fee £1.60
Midlothian	2021	£0.16	£0.30	kWh	£1.00 minimum charge £1/min overstay charge after 1hr (journey)
East Lothian	2021	£0.16	£0.30	kWh	£1.00 minimum charge £1/min overstay charge after 45 mins (journey charger)
Aberdeenshire	2021	£0.21	£0.21	kWh	
Argyll & Bute	2021	£0.25	£0.25	kWh	£1.80 minimum charge

Table 2: Summary of Scottish Local Authority tariff structures (taken from local authority websites and CPS network data)

5. Tariff Structure (based on SWOT Option 3)

The tariff structure proposed will follow precedent set by other local authorities in Scotland to allow consistency to grow within the Scottish public charging network and local authority networks. It follows the broad concepts set out in the EVA Scotland Tariff Guidance.

A summary of the approach to tariff structure elements can be found in the table below:

Element	Approach
Unit Rate Tariff	Applied. Users achieve value for money by paying only for units of energy used.
Flat Rate Tariff	Not Applied. A flat rate tariff would have to be set high in order to cover costs which could discourage use of the charge points. A flat rate encourages behaviour that is unlikely to support optimum utilisation and availability of charge points. Users tend to maximise their stays to minimise the unit cost.
Connection Fee	Not applied. Connection fees encourage behaviour that is unlikely to support optimum utilisation and availability of charge points. Users tend to maximise their stays to minimise the unit cost.
Minimum Charge	Applied. This encourages steady use of the charge points and ensures users achieve value for money.
Differential tariff	Applied. A lower cost for destination charge points helps to promote fair usage and supports the higher cost associated with the installation and upkeep of journey charge points.

Rounding of energy use	Rounding down applied. Rounding down usage to the nearest kWh will help to mitigate failed connection issues and/or interrupted sessions.

Given the lack of national charging policy, the prices above are based on soft market intelligence. Additional factors have been taken into consideration such as:

- Other local authority pricing structures and feedback since implementation
- Current cost to Highland Council for supplying electricity
- Average domestic electricity tariff
- The expectation that current funding streams will continue to decrease/cease over the coming months
- The current asset portfolio and how the charge point types may change
- Commercial pricing structures
- Expected maintenance/upkeep of sites not covered by existing contracts

Taking the above into account, it is proposed that the initial tariff pricing is set at the following rates:

Journey (43kW+) Chargers:	**Destination (22kW or less) Chargers:**
• 30p per kWh • £1 minimum charge • Overstay charge applied after 45 minutes • (+15 min grace period, £1/min thereafter)	• 20p per kWh • £1 minimum charge

NOTE: The above pricing structure will require regular review (annual recommended).

It is proposed any tariff must cover electricity costs and tariff management fees. Any surplus should be reinvested into EV Infrastructure network operations. Funding from Transport Scotland currently covers:

- Full supply and installation of charge point units and electricity supply
- 5 years charge point maintenance (excluding some items)
- A proportion of staff management time

This is expected to decrease or cease after the end of the financial year 21/22. A regular review of the tariff pricing set will be required in order to ensure costs associated with the above are adequately covered. Various commercial models are also in development and may be available for consideration during the review stage.

The above tariff structure is endorsed by the Electric Vehicle Association Scotland.

6. EV Bay Management

The Highland Council promotes Traffic Regulation Orders (TRO) to support all parking regulation and enforcement. The implementation of all Traffic Regulation Orders is subject to statutory procedures and specific service operating procedures[1]. TROs are applicable to all parking violations including the misuse of EV bays.

Proper use of EV bays and charge points is essential in order to operate an efficient and reliable network. A range of EV bay etiquette guides are available to EV users online and measures for controlling usage of the bays will continue to develop as EV uptake increases and we learn more about usage patterns and user groups.

[1] https://www.highland.gov.uk/downloads/file/19425/thc_parking_policy_2018_to_2023

Highland Council EV Bay Classification

Highland Council EV bays are not classed as parking spaces therefore no parking charges apply. Leaving an electric vehicle in an EV bay is permitted for the purposes of charging an EV only. Once charging is complete or the maximum stay period expires, the bay must be vacated.

This classification will be reviewed to reflect the evolution of the EV charging network and usage.

To enable the charge point types to be utilised in the most efficient and effective way, it is proposed that EV bay usage will be managed/controlled in the following way:

<table>
<tr><th rowspan="2">Charge point Type</th><th colspan="3">Control Measure</th></tr>
<tr><th>Max Stay Period</th><th>No Return Period</th><th>Misuse of bays</th></tr>
<tr><td>Journey (43kW+)</td><td>45 minutes
(+ 15-minute grace period)</td><td rowspan="2">30 minutes</td><td rowspan="2">Only EVs should occupy EV bays
EVs must be charging whilst occupying an EV bay</td></tr>
<tr><td>Destination (22kW or less)</td><td>Not currently applied</td></tr>
<tr><td>Penalty</td><td>£1/minute overstay charge (up to a maximum of the Local Penalty Charge Notice). This is intended to be administered automatically through the ChargePlace Scotland back office system, alongside the tariff. Currently, only a fixed overstay amount per fixed overstay period can be collected. This will be reviewed as the back-office functionality evolves.</td><td colspan="2">Policed by Parking Enforcement Officers.
Penalty Charge Notice as per the Highland Council Parking Policy applies</td></tr>
</table>

NOTE: The management and control of EV bays will be regularly reviewed with any proposed changes evidence-based through data gathering and engagement exercises. This will be predominantly to ensure that provision meets demand well and that high usage charge points in particular are utilised in a fair way by EV users.

The above EV bay management approach is endorsed by the Electric Vehicle Association Scotland.

7. Communication

To help embed the concept of transitioning to EVs among the public and within communities, it is important that common and simple terminology is used to describe EV charging infrastructure.

An increasingly common way to describe familiar charge point types is as follows:

Journey Chargers:	**Destination Chargers:**
• 43kW+ • Often referred to as 'rapid' • Common units are 50kW	• 22kW or less • Often referred to as 'slow', 'standard' or 'fast' • Common units are 7kW and 22kW

Precedent has been set by East Lothian Council in adopting these simplified terms. This approach is widely supported among key user and stakeholder groups (including the EVAS).

It is recommended that Highland Council also adopt this terminology and build on the good practice set by helping to provide a consistent message for EV users across Scotland.

There will be 4 key communication channels to support the introduction of tariffs, they are:

1. Official press release and associated social media announcements in the weeks leading up to the introduction (this will be disseminated among an established peer network in an effort to maximise coverage).
2. Tariff and bay management information will be available on the CPS map which is the official data source for the charging network.
3. Clear, consistent signage will be rolled out on current charge point sites outlining the tariff and bay management approach.
4. Current information will be available on the Highland Council website.

8. Summary of Recommended Approach

1. The Council is not allowed to realise a profit from the introduction of any tariff; therefore, it is proposed any tariff must cover electricity costs and tariff management fees. Any surplus should be reinvested into EV Infrastructure network operations. This tariff is:

Journey Chargers:	**Destination Chargers:**
• 30p per kWh • £1 minimum charge • Overstay charge applied after 45 minutes (+15 min grace period, £1/min thereafter**)**	• 20p per kWh • £1 minimum charge

2. The tariff will be reviewed on a minimum annual basis and any adjustment will be evidence driven supplemented by engagement with an external peer network. Existing governance will be used to examine financial reports to ensure the tariff price point remains fair and enables swift action to be taken in the event the tariff fails to recoup costs or surplus levels are excessive. Proposed adjustments will be presented to the EV Infrastructure Board for approval and notified via an update paper to committee.
3. The structure will adhere to the guidance set out by the EVAS and follow good practice set by other local authorities in Scotland.
4. Going forward, simple terminology as outlined in section 7 is adopted to the description of common charge point types.
5. The tariff will be managed by the Climate Change & Energy Team and governed by the EV Infrastructure Board.

These recommendations support the 3 key principles outlined in section 3:

Simple:	**Fair:**	**Sustainable:**
• Consistency - follow other successful approaches • Apply a simple tariff • Apply easily understood terminology • Communicate information clearly to users	• Strict and effective bay management • Encourage considerate EV bay etiquette • Apply a lower tariff to destination charge points • Incorporate grace period into bay management controls • Equitable for users without access to home charging	• Set tariff at a rate expected to cover costs with a small surplus • Review regularly (annual recommended) • Gather feedback and engage with stakeholders to inform reviews

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