

Date: 29th November 2019

Subject: Greater Manchester Electric Vehicle Charging Tariff Proposal

Report of: Eamonn Boylan - Chief Executive GMCA & TfGM

PURPOSE OF REPORT

This report sets out and seeks approval of a proposal to introduce a tariff on the Greater Manchester Electric Vehicle (GMEV) charging network from early 2020.

RECOMMENDATIONS:

The GMCA is requested to:

1. approve the introduction of the proposed electric vehicle charging tariff on the publicly owned GMEV charging network, subject to a satisfactory membership scheme being developed.
2. delegate authority to the Chief Executive, in consultation with the GM Mayor, to approve the Membership Scheme and to implement the proposed electric vehicle charging tariff.
3. note the market research undertaken and used to develop the tariff structure.
4. note the potential financial impact of introducing a tariff, and the uncertainty surrounding electric vehicle charging demand.
5. note that the electric vehicle charging market is a developing one, and a review of the tariff's performance may be required in response to changing demand and supply conditions.

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Equalities Implications:

There are no detrimental impacts on all the protected characteristic groups in line with the Equality Act and Public Sector Equality Duty.

Climate Change Impact Assessment and Mitigation Measures:

Electric vehicle (EV) charging infrastructure is key driver of Greater Manchester's ambitions for the environment. EV charging is a core enabler of the GM ambition to be a carbon-neutral city region by 2038, and the GM clean air plan is underpinned by encouraging GM businesses to switch to low and zero emissions vehicles. The proposals are a key enabler to the future growth of the GMEV Charging Network and the uptake of zero emission vehicles. Additional information is contained in Paragraph 1

Risk Management:

Not applicable

Legal Considerations:

Not applicable

Financial Consequences – Revenue:

The operating and maintenance costs of the GM Electric Vehicle charging network are currently funded by a contribution from the Transport Levy. The annual cost in financial year 2018/2019 and 2019/20 was c£0.2m. As set out in this report, it is not financially sustainable to continue to operate the GMEV network without introducing a charge within the context of a growing EV market. The financial consequences are detailed at paragraph 4

Financial Consequences – Capital:

Not applicable

Number of attachments to the report: None

Comments/recommendations from Overview & Scrutiny Committee

A summary of the comments from the Overview & Scrutiny Committee is contained at Appendix B and Appendix C, the response to the comments received from the Greater Manchester Taxi Trade Coalition.

BACKGROUND PAPERS:

GMCA Transport Revenue Budget 2018/19 26th January 2018, section 4.20

TRACKING/PROCESS		
Does this report relate to a major strategic decision, as set out in the GMCA Constitution		Yes
EXEMPTION FROM CALL IN		
Are there any aspects in this report which means it should be considered to be exempt from call in by the relevant Scrutiny Committee on the grounds of urgency?		Not applicable
GM Transport Committee	Overview & Scrutiny Committee	
Not Applicable	14th November 2019	

1. INTRODUCTION

- 1.1 Electric vehicle (EV) charging infrastructure is key driver of Greater Manchester's ambitions for the environment. EV charging is a core enabler of the GM ambition to be a carbon-neutral city region by 2038, and the GM clean air plan is underpinned by encouraging GM businesses to switch to low and zero emissions vehicles. As part of the public conversation held earlier this year on the clean air plan proposals, the availability of charging points was cited as a key barrier for businesses and individuals in switching to an electric vehicle.
- 1.2 Electric charging provision is fundamental in ensuring the long-term ambition for GM to be one of the greenest city regions is realised. Although these ambitions are long-term, the work required to make them happen needs to start in the short term. This paper sets out the immediate plans to ensure charging provision is sustainable across GM for the long-term.
- 1.3 Since the installation of the Greater Manchester Electric Vehicle (GMEV) charging network in 2012/13, TfGM has not charged customers to charge their vehicles. In order to use the GMEV network, customers are currently required to either register for a membership card for an annual fee of £20 that is payable to the third party who operate the network; or use the mobile app for free. The annual cost to TfGM of operating and maintaining the GMEV network in financial year 2018/2019 was c£0.2m
- 1.4 In January 2018, the report to GMCA on the Transport Budget for 2018/19 noted that the Budget Scrutiny Panel had agreed to a proposal to commence charging for use of the service, as it was deemed financially unsustainable to continue to provide the service free of charge given the growth in Electric Vehicle ownership and the number of charging sessions and the wider pressures on transport budgets.
- 1.5 High growth in GMEV usage has occurred since July 2016, with electricity drawn from the GMEV network increasing by 62% in the period from July 2016 to July 2019. A report commissioned by TfGM from 'Zero Carbon Futures' forecasts that the number of ultra-low emission vehicles (ULEV) is set to double between 2020 and 2025 in Greater Manchester (GM), and that GM's share of national targets, set by the UK's Committee on Climate Change, requires higher growth in EV usage than this, if the targets are to be achieved. The network of electric vehicle charging points in GM, including the GMEV charging network, will need to grow to meet this increase in demand and consequently the costs to the public sector of operating and maintaining the GMEV network will increase.
- 1.6 Providing good quality and well-maintained Electric Vehicle (EV) Charging Infrastructure would send a positive signal to the public about the quality of its urban areas, help convert petrol and diesel vehicle owners to EVs, and bring GM a step closer to achieving its wider ambitions as set out in the Greater Manchester Transport Strategy 2040.
- 1.7 TfGM are currently finalising the details of a contract with a third party to update and expand the existing GMEV network. This Contract will also include the upgrade of the existing chargers which will improve the reliability of the network and reduce maintenance requirements as well as brokering private sector investment in a complementary, privately run EV charging network. TfGM have undertaken to work collaboratively with the new

supplier to provide an integrated customer proposition which may include shared branding, common functionality and joint membership schemes.

- 1.8 The proposal to introduce a tariff and associated membership scheme on the expanding GMEV charging network will secure a long-term revenue stream to assist in funding the costs associated with the publicly owned EV charging infrastructure in GM.

2 MARKET RESEARCH

- 2.1 Both qualitative and quantitative market research has been commissioned by TfGM to develop an understanding of the motivators and barriers to EV ownership, and the main factors that influence customer behaviour in respect of EV charging.
- 2.2 The primary aim of the research was to understand the motivations and issues around individuals transitioning to an Electric Vehicles or Plug in Hybrids which currently only account for 2.7% of total registrations in the year to October 2019¹
- 2.3 The qualitative research involved ten focus groups, and a number of telephone interviews with Small and Medium sized businesses. Nine of the focus groups contained petrol / diesel owners and one contained plug-in hybrid owners. All focus group attendees claimed they would actively consider buying an EV in the next three years. The businesses interviewed typically ran 5 to 10 company cars.
- 2.4 The market research shows that the environmental benefits of EV ownership is the largest motivator to buying an EV followed by lower running costs (when compared to petrol and diesel vehicles). Conversely, the main barriers for non-EV owners to buying an EV are the initial price of the vehicle, the lack of available charge points, and the limited range of EVs.
- 2.5 Although the market research indicated a preference for a tariff in which everyone pays the same rate, regardless of membership or how much they use the infrastructure, it was acknowledged that the sample size of current EV owners was relatively small. Consequently, further market research will be undertaken, in collaboration with the new supplier, to inform further development of the customer proposition including a Membership Scheme, as noted above.
- 2.6 The research indicated that few non-EV owners know how much cheaper it is to run an EV vehicle relative to a petrol / diesel vehicle, and that they would prefer a tariff based on kilowatt hours (kWh) fuelled over alternative options (e.g. a tariff based on time connected to a charging point). The preferred structure closely resembles the current industry standard for petrol and diesel vehicles whereby customers are charged by the litre.
- 2.7 The research also indicated that non-EV owners generally underestimate how quickly EVs can be charged and, importantly in the context of overstay charges as described in

¹ Society of Motor Manufacturers and Traders November 2019

paragraph 3.8, had concerns over waiting for another vehicle to be charged before they could charge their own.

3 PROPOSALS FOR CONSIDERATION

- 3.1 It is proposed that TfGM would introduce a Pay-As-You-Charge (PAYC) tariff based on kWh consumed on the GMEV network in early 2020, aligned to when the new supplier will begin to operate, maintain and expand the GMEV network. Whilst, due to the legal restrictions of the 1998 Competition Act, we cannot oblige the new supplier, TfGM is seeking to agree with the new supplier an alignment so that a common tariff structure would be available across the publicly and the new suppliers privately-owned infrastructure. This will help to maintain a single customer proposition and ensure that the EV charging proposition in GM is easily understood and convenient for both residents and visitors.
- 3.2 TfGM will work with the supplier to develop a membership scheme for GMEV which will look at a wide range of options around how a membership-based tariff could work, including for example, frequent usage and off-peak usage discounts off the baseline tariff. This will be developed through further user research including with commercial operators.
- 3.3 Furthermore, in advance of the implementation of the Tariff and Membership Scheme, existing members of the GMEV scheme will be encouraged to register (at no additional cost) for the new scheme that will be operated by the incoming supplier. This registration will allow current GMEV members to receive communications and to access a new membership card that can be used to access the GMEV network.
- 3.4 There are two types of chargers within the GMEV network, rapid chargers and fast chargers. Rapid chargers charge vehicles at a relatively faster rate and typically deliver between 43kW and 50kW, while fast chargers charge a vehicle at a slower rate and typically deliver between 7kW and 22kW.
- 3.5 The proposed EV baseline tariff would require customers to pay £0.25 per kWh when fuelling their vehicle with a fast charger, and £0.35 per kWh when fuelling their vehicle with a rapid charger.
- 3.6 The proposed tariff has been designed to recover the costs of operating and maintaining the publicly owned GMEV network in the financial years following its introduction. Under the proposal, it would cost either £10.00 or £14.00 to charge a Nissan Leaf EV depending on whether a customer uses a fast or a rapid charge point. This is relative to the comparative cost of £20.88 to fuel a Ford Focus petrol car to travel the same distance.
- 3.7 The table below compares charging tariffs on major networks within the UK and compares the cost of charging a Nissan Leaf with a 40kWh battery to 50% battery capacity. The proposed GMEV tariff is included for comparison. Charge Points that are free to use across Greater Manchester have been excluded, such the circa 15 Charging points from Pod Point, several car dealerships and a select number from Polar that charge a connection fee only.

- 3.8 The table at Appendix A shows that the proposed GMEV baseline tariff is competitive when benchmarked against other PAYC tariffed EV charging infrastructure across the United Kingdom.
- 3.9 It is acknowledged that customers may overstay their charging sessions after their vehicles are fully charged. This would prevent other EV users from using the infrastructure, reducing the availability of the GMEV network. This could discourage non-EV owners from making the shift to EV ownership, as indicated in the market research, and lead to lower revenues. To mitigate against this, it is proposed to apply a maximum stay time of 10 hours for fast chargers, and 1.5 hours for rapid chargers. When the maximum charge time has elapsed, an overstay charge would be applied of £10 per 60 minutes for rapid chargers and £5 per 60 minutes for fast chargers. The overstay charge would continue to increase up to a limit of £30. This would likely impact less than 5% of customer charging sessions.
- 3.10 The proposed overstay charges are competitively aligned to similar charges on other networks both nationally and within Greater Manchester as presented below

Competitive Overstay Charge Analysis

Charging Network	Location	Overstay Charge
Polar Plus	UK wide	£10 fee for each 1 hour after 90 minutes of charging on rapid chargers
Polar Instant	UK wide	£10 fee for each 1 hour after 90 minutes of charging on rapid chargers
ESB EV Solutions	London and Coventry	£10 fee for charging sessions over 1 hour on rapid chargers
Genie Point	England wide	£10 fee for each 1 hour charging on rapid chargers

- 3.11 The EV vehicle and charging markets are both developing and growing markets and consequently, tariffing for EV charging is a relatively new concept, particularly for GM where the GMEV network has been provided free of charge to the user since 2012/2013. There is a significant degree of uncertainty around future EV supply and demand, and consequently the future of EV charging infrastructure and the associated commercial models. As a result, it is difficult to accurately predict how the existing GMEV demand will react to the introduction of a tariff. TfGM will need to monitor the demand on the GMEV network and periodically review the details of this tariff in response to changing market conditions.

4 FINANCIAL IMPACT

- 4.1 The operating and maintenance costs of the GMEV network are currently funded by a contribution from the Transport Levy. The annual cost in financial year 2018/2019 and 2019/20 was c£0.2m. As set out earlier in this report, it is not financially sustainable to continue to operate the GMEV network without introducing a charge within the context of a growing EV market.

- 4.2 Funding has been made available through the Clean Air Plan Early Measures Fund which has been provided by HM Government to installation and three years of operation and maintenance costs (excluding electricity) of 25 additional rapid chargers due to be installed between January and April 2020.
- 4.3 As part of entering into a contract with the new supplier, TfGM will benefit from a discounted operational cost for the first two years of the contract term.
- 4.4 It is forecast that running costs will subsequently be covered by revenue generated from demand from growth in the market. This would equate to the number of EV charging sessions increasing by a third compared to demand in financial year 2018/2019. This is considered to be achievable based on ULEV usage forecasts between 2020 and 2025.
- 4.5 Whilst the positioning of the proposed tariff is competitive, the precise impact on demand of introducing a tariff for EV charging is unknown. However, the EV market is a growing one and ultra-low emission vehicles figures in GM are forecast to double between 2020 and 2025 and the proposed tariff is significantly cheaper than the equivalent cost of fuelling a petrol or diesel vehicle. It is therefore assumed that any reduction in demand resulting from the introduction of the tariff will be recovered in the short to medium term.
- 4.6 The proposed baseline tariff has been set at a level that is consistent with that charged by other networks when benchmarked against the market, however it is proposed that the tariff be reviewed regularly, including prior to the discounted operational costs increasing in year three.
- 4.7 The table below shows the costs of running the GMEV network in the 2018/2019 financial year, alongside the estimated annual costs for the duration of the contract with the new supplier. Revenue has been estimated based on the current EV charge point demand as noted in paragraph 4.5. Maintenance charges will continue to be recovered from the private sector hosts of a number of charge points.
- 4.8 Revenue currently generated from the existing £20 annual GMEV membership fee is paid directly to the incumbent supplier to help cover running costs of the GMEV network. As this membership fee will be discontinued and is therefore excluded from the table below. Similarly, as over stays would be actively discouraged and revenue from overstays is estimated to be very small, we have assumed no revenue from that source.
- 4.9 Annual Operation and Maintenance costs and Revenue of the GMEV Network

	Year							
	2018/ 2019	2020	2021	2022	2023	2024	2025	2026
Tariff per kWh (£) - fast charger	0	0.25	0.26	0.27	0.28	0.29	0.30	0.31
Tariff per kWh (£) - rapid charger	0	0.35	0.36	0.37	0.38	0.39	0.40	0.41
VAT to pay (£000)	0	29	30	31	32	33	34	35
Total cost including VAT (£000)	215	142	143	233	234	238	242	246
Total revenue (£000)	13	155	161	166	172	177	183	188
Surplus / (deficit) (£000)	(202)	13	18	(67)	(63)	(61)	(59)	(57)

N.B. Charge point demand is assumed to remain at the same level as financial year 2018/2019. The surplus generated in 2020 and 2021 is a result of an operational discount which is a feature of the new EV contract.

Total revenue in the table above has been modelled solely on the revenue derived from the baseline tariff and does not currently take into account any potential Membership Scheme discounts

- 4.10 Based on the figures in the table above, the revenue raised by the proposed charging tariff, which is, subject to agreement at the relevant time, profiled as increasing in line with RPI, is expected to cover no less than 70% of all maintenance and operating costs of the GMEV network, assuming no change in demand. However, it is possible that the demand will reduce in the short term in reaction to the introduction of an EV charging tariff.
- 4.11 It is proposed that any surplus resulting during the first two years of operation would be 'ringfenced' and used to partly or wholly cover any subsequent deficits.
- 4.12 It is further proposed to provide GMCA with six monthly updates on usage, revenues and costs for the first year of operation.

5 RECOMMENDATIONS

- 5.1 Recommendations are set out at the front of this report.

Appendix A - Competitive Charging Rate Analysis

Rank by Cheapest	Charging Network	Network Location	Fast Chargers (7kW to 22kW)		Rapid Chargers (43kW to 50kW)	
			Cost per kWh (£)	Cost to charge a Nissan Leaf by 50% (£)	Cost per kWh (£)	Cost to charge a Nissan Leaf by 50% (£)
1	Polar Instant	UK wide	0.18	3.60	0.25	5.00
2	Proposed GMEV Tariff	Greater Manchester	0.25	5.00	0.35	7.00
3	EV Driver	England wide	0.25	5.00	N/A	N/A
4	Alfa Power	England wide	0.25 via app or 0.33 via QR code	5.00 or 6.00	0.25 via app or 0.33 via QR code	5.00 or 6.00
5	ESB EV Solutions	London and Coventry	N/A	N/A	0.29	5.80
6	LIFE	England wide	0.30	6.00	0.30	6.00
7	Polar Contactless	UK wide	N/A	N/A	0.30	6.00
8	Source London Flexi	London	0.119 per min @ 22kW	6.49 @ 22kWh	N/A	N/A
9	GeniePoint	England wide	0.30 plus 0.50 connection fee	6.50	0.30 plus 1.00 connection fee	7.00
10	InstaVolt	England and Scotland	N/A	N/A	0.35	7.00
11	Engenie	England wide	0.36	7.20	0.36	7.20
12	Ecotricity Highway	Great Britain wide	0.39	7.80	0.39	7.80
13	Shell Recharge	London Centric	N/A	N/A	0.39	7.80
14	Source London PAYG	London	0.143 per min @ 22kW	7.80 @ 22kWh	N/A	N/A

Appendix B - A Summary of The Comments From The Overview & Scrutiny Committee dated 14th November 2019

GM Electric Vehicle Charging

The Greater Manchester Taxi Trade Coalition (GMTTC) circulated a letter to all Members of the Committee that set out their concerns on proposals to introduce a tariff on the Greater Manchester Electric Vehicle (GMEV) network from early 2020. Representatives from the sector were present at the meeting on 14.11.19 to listen to discussions around issues raised.

Members expressed a variety of concerns regarding the introduction of a tariff on the Greater Manchester Electric Vehicle (GMEV) charging network from early 2020.

Members queried the market research undertaken to develop the tariff structure, which they felt only incorporated consultation with a very small percentage of electric vehicle owners. It was clarified that market research for both tariffing and service had included a cross section of the public. This had deliberately included non-EV owners as they were the future target market for the GM Clean Air plan. In addition, other supporting information from existing user data had been included.

Members also expressed concern at the level of over-stay charges that were not felt to be comparable with other networks. It was clarified that this was designed as a deterrent to vehicles preventing private hire cars from using this facility. TfGM offered to consult further with the contract partner and give further advice to the GMCA on overstay charges.

With regard to queries around overall tariffs costs being high compared to national averages, it was explained that these examples often included the requirement of an additional pre-membership payment that offset this tariff.

Members raised concerns that the introduction of charging tariffs could be detrimental to the growing of the Electric Vehicle market, which currently had not grown at the desired rate. The costs of buying an electric vehicle were highlighted as being comparably high, with current associated running costs being relatively lower. This financial incentive would be removed should proposals to introduce charges be agreed. It was explained that the cost to maintain the current free-charge model would be an escalating cost within TfGM and to Local Authority budgets. The proposals put before the Committee attempted to achieve a balance between the current offer and maintaining budgets.

Members reiterated comments made by the Taxi community that only two of the three rapid charging points were working. It was clarified that the first-generation technology available at that time (2011/12) was now difficult and expensive to repair and maintain. A new contract would include an refurbishment of existing Rapid chargers, improve the reliability of the network and incorporate better maintenance and the replacement of the existing Fast charging points.

Members expressed a concern over the availability of domestic charging points. It was reported that the number of domestic properties with charging points were increasing and represented the best solution to fueling these vehicles. It was stated that 40% of homes in GM lack driveways, and that TfGM are assisting the district councils with various offers of street-side charging points. Local

Authorities were also looking at the role of planning decisions to encourage introduction of charge points.

Members requested that along with concerns raised by this Committee, that the question and answer sheet response issued by TfGM addressing the concerns of the GMTTC in their letter to Members be also submitted to the Combined Authority.

RESOLVED

That based on the information set out in the report, namely, the lack of clarification from central government on funding for the GM Clean Air Plan and the incomplete membership model, the Committee cannot fully support the introduction of Electric Vehicle charges in early 2020 until both the above were agreed and in place.

(For full detail of the feedback issued from TfGM in relation to the letter submitted by GMTTC, please see full minute for Item HPE/178/19 from Housing Planning and Environment Overview and Scrutiny meeting on 14.11.19).

Appendix C : TfGM Response To The Letter Sent To Oversight & Scrutiny Committee Members From GM Taxi Trade Coalition Regarding EV Charging Tariffs Dated 12th November 2019

1 Context

1.1 On 12 November Members of the HPEOS Committee received a letter from the Greater Manchester Taxi Trade Coalition which raises their members' concerns regarding the proposed approach to EV charging in Greater Manchester.

2 Key Points

2.1 We welcome scrutiny of the proposals and the opportunity to set out the rationale for them.

2.2 We welcome the engagement of the Greater Manchester Taxi Trade Coalition. As a key user of GMEV infrastructure it is important that GMCA and TfGM maintain a close dialogue with the Trade.

2.3 There has been sustained engagement with the GM Taxi Trade Coalition on the GM minimum licensing standards proposals and the GM Clean Air Plan. Engagement has included regular briefings via licensing managers as well as specific sessions with the trade in autumn 2018. This engagement has been valuable in shaping the approach to these initiatives and that it is our intention to continue our dialogue.

2.4 The proposed approach marks a change in the approach to Electric vehicle charging and, therefore, it is anticipated that there will be ongoing opportunities to refine the plan as it is delivered, including in response to user/stakeholder feedback and wider work with energy and infrastructure suppliers.

2.5 As plans develop, we will continue to engage with the trade. We fully recognise the importance of EV charging infrastructure for the trade and are in discussion with government on how to facilitate the uptake of EV Taxis.

2.6 GM has an ambition to be carbon-neutral by 2038 and the GM Clean Air Plan is based on the principle of supporting businesses and the taxi and private hire trade to switch towards low and zero emissions vehicles.

2.7 Similarly, to meet GM's targets, it is important that the views of non-EV users are understood to gauge what tariff structure would be appropriate to encourage their transition to EVs; this has been reflected in the design of market research exercise on barriers to EV ownership. TfGM has committed that future market research will include trade representation.

2.8 The proposed supplier contract (more details below) includes the development of a membership scheme which, aligned with potential funding under the GM Clean Air Plan, may provide the opportunity for discounted rates for impacted groups

- 2.9 Earlier this year, a public Conversation was held on the Clean Air Plan. This Conversation demonstrated that the availability of charging points would be a very significant barrier to the ability of vehicle-users to switch.
- 2.10 A full report of the Conversation, including a summary of responses made by the taxi and private hire trades, will be published alongside the future Clean Air Plan consultation. It is our ambition that any settlement with government includes incentives to help the taxi trade move to electric/zero-emission capable vehicles.

3 The proposed approach

- 3.1 Put simply, the proposed approach would see the cost burden shift from the tax-payer to the vehicle user.
- 3.2 GM is proposing to move the principle of charging from the tax-payer to the user. This means shifting from an approach where the cost of the service delivered to the user of a charging point is paid for through local subsidy, to one where the user pays at the point of delivery.
- 3.3 The proposed approach for the GM Clean Air Plan includes an investment of £19m towards 300 EV Charging Points across GM and an additional £28m towards encouraging Hackney and Private Hire owners to move to low and zero emission vehicles.

4 Procurement and supplier contract

- 4.1 TfGM is in the final stages of concluded the procurement for a supply, operation and maintenance contract of the GMEV Charging infrastructure. A seven-year contract is proposed, with the option for two three-year extensions.
- 4.2 The development of tender documentation and subsequent procurement process has been complex and driven by the desire to seek maximum benefit for the people of Greater Manchester. The process is overseen by a strict governance process. We are confident that the process has led to a contract which will deliver the best combination of service level and value for money.
- 4.3 Key services included in the contract will be:
- the upgrade of existing Fast charging infrastructure to the latest version (to overcome the obsolescence issues which have severely impacted on Charging Post availability)
 - the refurbishment and upgrade of the existing three Rapid chargers and installing an additional 25 (in addition, GM is bidding for more than 300 Rapid chargers as part of the Clean Air Plan). It is intended that this arrangement would address issues with the maintenance of the three existing Rapid chargers.
 - an enhanced support and maintenance regime to ensure greater levels of availability

- new private sector investment, including towards the provision of 1,500 extra Fast and Rapid Charging Posts across GM over the next seven years
- the development of a membership scheme to enhance the customer offer (details and date agreed as part of an implementation period and following further market research).

5 The proposed tariff

- 5.1 The proposed 'Pay As You Charge' tariff would see users pay £0.25p per kWh for Fast Chargers and £0.35p per kWh for Rapid Chargers in the first year of the scheme (2020). Over the seven-year contract (to 2026), the tariffs would each increase by £0.01 per year to arrive at £0.31p per kWh and £0.41p per kWh for fast and rapid chargers respectively, subject to annual GMCA Agreement
- 5.2 The revenue raised by the proposed tariff would cover no less than 70% of all maintenance and operating costs of the GMEV network, based on the assumed level of demand.
- 5.3 TfGM plans to pay the operator to maintaining and operating the refreshed and new infrastructure. As no central government funding is planned, the burden of the cost will fall on TfGM and the majority of which would be recouped through the tariff.
- 5.4 It is our intention as part of the new contract to develop a membership scheme for GMEV which will look at a wide range of options around how a tariff could work for example, with frequent usage and off peak usage and this will be developed through further user research which we have committed to include the Hackney and Private Hire communities.

TARIFFS ILLUSTRATED BY THE GREATER MANCHESTER TAXI TRADES COALITION

1.1 The GM Taxi Trades Coalition letter quotes other tariffs available in the market place – Polar Plus, Ecotricity Highway, Swarco E. Connect, Pod Point - and questions why some have not been included in the GMCA paper. As a broad principle any scheme which required a supplementary payment was excluded as not being comparable:

1.2 Polar Plus

Three different tariff structures. Polar Plus, the cheapest per kWh, requires a monthly subscription fee of £7.85 and is therefore not comparable to the proposed GMEV tariff. Polar Instant is included and is at the same level as the proposed GM Tariff. Polar Contactless, their most expensive tariff, requires payment to be made by a contactless card and is included in the GMCA paper.

1.3 Ecotricity Highway

Has two tariff offers, standard and 'fully charged bundle'. Access to the latter requires Ecotricity to supply the customer's household electricity and therefore is not included in the comparison within the GMCA Paper

1.4 Swarco E. Connect

Not included in the GMCA paper because there are no Swarco E. Connect charging points in GM.

1.5 Pod Point

Offer only approximately 15 charging points across GM, including only two rapid chargers which are based in supermarket car parks. The tariff for these two is significantly less than other Rapid chargers and could be subject to a commercial subsidy from the supermarket chain. Also please note that some supermarkets provide free charging for their customers.

RESPONSES TO SPECIFIC CONCERNS RAISED BY THE GREATER MANCHESTER TAXI TRADE COALITION

Section 1.1

The taxi trade responded to the public consultation in June 2019 and was encouraged to do so by the Licensing Authorities as well as the cleanaigm.com website. This section has whitewashed our responses about price structure, charge points and extended working hours because the charging point locations are not fit for purpose.

The public conversation collated responses from stakeholders and interested parties across GM. Charge point availability was cited as the key concern across all stakeholders, a full conversation report that will set out the analysis of responses and specific points raised by each stakeholder each group, including the taxi and private hire trades, will be published alongside the consultation.

As we further develop our plans we will continue to engage with the trade further through licensing managers, and we'll engage with the trade about charging points as part of the consultation. We fully recognise the importance of EV charging infrastructure to the uptake of EV Taxis and the plans, which we are in discussion with central government on. Whilst it is premature to give details we are seeking to include incentives for Taxis to move to electric/zero-emission capable vehicles.

Section 1.6

The current rapid chargers (there are only THREE across GM) are not well maintained. The charging stations at the Etihad Stadium and Salford Royal have not been maintained properly and as a result the CCS connector has been faulty for over four months even though numerous complaints have been made that these connectors are faulty.

We recognise the issues associated with the maintenance of the existing charging estate, which is provided free of charge. The age of the Chargers in a rapidly developing market has resulted in issues around the availability of spare parts. We recognise this as a key issue and the new supplier will be responsible for refurbishment and upgrade of the existing three and installing an additional 25 Rapid Units.

Section 1.7

These contract negotiations should have been concluded in 2018 so the new operator could go live as of January 2019. The project is 1 year late. If TFGM have an inability manage contract negotiations within the required timeframe, then the question of the competence of TFGM officers to run the system in the best interests of the GM constituents and trade groups is brought into question. Other concerns are officers being hood winked by a large powerful operator for the gain of its private enterprise is all too real.

The development of the tender documentation and subsequent procurement process has been complex as a result of seeking to deliver the maximum benefit for the citizens of Greater Manchester. The process has been overseen by a thorough Governance process. Through the competitive process we are confident that we have secured a contract which maximises the delivered value.

Section 1.8

Since TFGM is putting in £3.6million (Joint Air Quality Unit (JAQU) awarded Early Measures Intervention Funding (£1.8 million), £1.8 million awarded through the OLEV ULEV Taxi Infrastructure scheme) what controls are there by competent people that the infrastructure costs are appropriate and not over inflated? The above funding suggests the private enterprise will profiteer.

Source of funds: <https://www.local.gov.uk/greater-manchester-electric-vehicle-network>

The full costs of implementation include the physical charging posts, planning consents, project management and the connection to the electricity supply and have been subjected to a competitive procurement process. As mentioned, the contract is being subjected to a thorough governance process.

Decisions on the OLEV ULEV taxi funding are being finalised, therefore, it would be inappropriate to include any taxi specific funding within this report relating to that potential funding source.

Section 2.1

The market research done for the barriers to EV ownership. This report is for the pricing of an infrastructure for EVs. So why does the research continuously refer to non EV users. Surely it would have made sense to do the research amongst existing EV users so that the infrastructure could be tailored to suit the requirements.

Non-EV Users are a critical market as we are seeking to encourage the move from Internal Combustion Engines to EV. We therefore need to understand the views of this segment and set the tariffs at a level which will incentivise them.

Local councils have engaged with the taxi trade for some time on the future of the GMEV network and other issues related to the GM Clean Air Plan proposals, and TfGM will make sure that the industry is represented in the next phase of EV-related market research.

Section 2.2

The Hackney Carriage Trade has made numerous offers in writing and at meetings with Wayne Leggett, EV Network Delivery Manager, GMEV to engage with the trade as we are going to be a major player when the fleet becomes electrified. This has fallen on deaf ears.

We have had meetings with TfGM who promised to consult the taxi trade as they are running a fleet of 25 electric vehicles. We also had a meeting with Andy Burnham on 25/9/19 who again promised that the trade would be consulted. We have practical experience of 25 electric taxis across GM and our voice and experience has been ignored.

We fully recognise the importance of EV charging infrastructure to the uptake of EV Taxis and the plans, which we are in discussion with central government on. There have been regular briefings with the trade through their local authority Licensing Managers around the Greater Manchester Clean Air Plan and some specific sessions were held with the trade in summer 2018 to ask for their early views on EV infrastructure.

The proposed EV charging tariff is designed as a baseline tariff accessible to all, and whilst it is premature to give details, we are seeking to include incentives for Taxis to move to electric/zero-emission capable vehicles.

Moving forward, as we secure funding from Government to incentivise the move of Hackney and PHV's to EV's we wish to engage with the trade to ensure that our implementation plans align with the business practices of the Trade

Section 2.2

This section is not fit for purpose as it has excluded our trade as a major group that is actually using the charging network and charging on average 3 times every day for each electric driver.

There was never any intention to exclude trade bodies from the Market Research and we shall ensure that the trade is represented in the next wave of EV related market research.

Section 3.2

The report does not mention the length of the contract; "may" include discounted tariff rates should be changed to "will" include discounted tariff rates. By having this change in terminology makes it harder for the operator to bully a week TFGM officer who may not have the skill set to hold firm the TFGM position and not allow contract conditions to be eroded.

The paper is not concerned with the award of the contract and the information on the term of the contract will be made available at a later date. Concerning membership schemes it is the intention of the supplier and TfGM to launch a membership scheme, but the details and date of such a

scheme will be agreed as part of the implementation period following further market research which will include the taxi trade

Section 3.3

GMEV network has only 3 rapid chargers and zero 22 kWh chargers. It has a lot of 7 kWh Chargers. For electric taxis we can only use these 3 rapid chargers to charge our vehicles- the time taken on a 7 kWh do not make them fit for purpose for the taxi trade (3.5 hours to charge on a 7 kWh chargers)

TfGM as part of the Clean Air Plan Early Measures funding are installing 25 additional rapid Chargers and we are, in addition, bidding for in excess of 300 additional Rapids as part of the GM Clean Air Plan.

Section 3.4

The proposed tariffs are in line with commercial providers such as BP and Shell who have invested their own funds of millions of pounds to bring the infrastructure to the forecourt. How can these prices be quoted hold water when the infrastructure cost is being given to the private operator?

The private operator will replace existing GMEV charge points as well as maintaining and operating the infrastructure. No central government funding is available for this, therefore, the full cost will be borne by TfGM over the life of the contract. As such this investment needs to be recouped through the charging tariff. This is separate to additional charge points being funded through the Clean Air Plan Early Measures fund which has been excluded from the financial table within the GMCA report.

Section 3.5

Misleading. The mileage comparison assumes it is a warm day with the temperature about 12 centigrade. Below this temperature, which is at least five months across GM every year the range on the Nissan Leaf dramatically decreases up to 25% of the actual road mileage. (Manufactures theoretical miles are not worth the paper they are written on). Turning on the heating in a Nissan Leaf dramatically depletes the battery, in the Ford Focus heating doesn't have the same effect on petrol fuel consumption as heat is a natural by-product.

In the absence of any other objective assessment of vehicle mileage it is reasonable to use the manufacturers declared ranges for the purposes of comparison.

Section 3.6

The comments made are factually incorrect. Pod point has paid charging in GM. Pod point has also 3 rapid charges via Lidl stores across GM. It charges 23p kWh. The 7kWh chargers have free electricity.

Source: <https://pod-point.com/electric-car-news/lidl-pricing-update>

Charging tariffs differ between Pod Point charge points with charging available for free at a number of them. As there appears to be no standard tariff for the Pod Point network, their tariff was excluded from the competitive charge rate analysis table. Additionally, we are unable to take a view as to the commercial relationship between Lidl and Pod Point

Polar plus has been omitted from Appendix A - Competitive Charging Rate Analysis Table. It is the cheapest Polar tariff and offered nationally. Why has it been omitted??

Polar plus has monthly subscription of £7.85 and charges of 15p kWh their 7kWh chargers have free electricity. Source: <https://polar-network.com/faqs/>

Ecotricity if you subscribe to them for home charging then the rate is 19p kWh for rapid chargers.

Source: <https://www.ecotricity.co.uk/for-the-road/at-home-and-on-the-road>

As discussed in Appendix A, tariffs for Polar Plus and Ecotricity Highway 'fully charged bundle' have been excluded from the competitive charge rate analysis table as they are not comparable to the proposed tariff.

Morrisons and Tesco have 7 kWh chargers with free electricity. Source Tesco pricing Pod-point app Swarco E. connect have the new GM electric vehicle charging contract. They charge 25p kWh for rapid charging outside Manchester. CHARGING 35p kWh IS A SHEER PROFITEERING FROM GREATER MANCHESTER CONSTITUENTS. Source of pricing Zap-Map app.

The GMCA paper states that free to use charge points are not included within the competitive charging rate analysis table, which include (though is not specifically mentioned) those at supermarkets. As noted in the answer to question 2, the competitive charge rate analysis table does is not an exhaustive list, and there are no Swarco E. Connect charge points within Greater Manchester, therefore, the Swarco E. Connect tariff was excluded.

Section 3.10

Does not do an impact assessment on the feasibility of the Hackney trade being able to provide a public service with commercial recharging costs given the high cost of the investment of the vehicle

We fully recognise the importance of EV charging infrastructure to the uptake of EV Taxis and we are proposing significant investment in the GM Clean Air Plan , which we are in discussion with

central government on. Whilst it is premature to give details, due to the stage of the discussions with Government and the role of the General Election in decision making, we are also seeking to include incentives for Taxis to move to electric/zero-emission capable vehicles.

Section 4.2

Funding has been in place for well over a year, if awarding the contract had not been mismanaged the infrastructure would have been in place by now. Our neighbouring authorities in West Yorkshire are installing 88 rapid chargers and electricity is free until 29th October 2021.

Source: <https://ev.engie.co.uk>

As described earlier, the additional chargers will be installed by the new supplier and we anticipate this activity to be complete by April next year.

Section 4.5

There has been no study done on the drainage of battery by using the vehicle heater. This will impact on affordability of electric charging. This will lead to recharging poverty issues, with consequences of increased workload on the NHS. Space heating frowned upon in electric vehicles, localised heating in heated seats is recommended. This is a situation that will increase the workload of the NHS as negative side effect. The heated seat doesn't keep the driver's knees or feet warm in cold temperatures thus slowing down blood circulation. The report does not inform the councillors the cost of waiting is not productive time whilst charging.

This is not a matter for TfGM or the report.

Section 4.6

The reports do not address that the rapid charging infrastructure is not in place. In West Yorkshire the combined authorities awarded the contract to Engie. A grace period of free charging until is 29th October 2021 is given whilst the installation programme is rolled out for 88 rapid chargers. So far nine rapid chargers have been installed.

The report does not concern itself with the implantation of new Rapid Chargers although between current infrastructure, secured funding and the bid being made under the Clean Air Plan we are anticipating over 350 publicly funded Rapid charging posts being available over the next three years.

Section 4.8

Our neighbouring authority in West Yorkshire through Engie do not have an annual fee of £20 for the RFID card. They have the ability on their system to register any RFID card for free which will be linked to the user account and can be used across their charging points.

Under the new tariffing regime there will no longer be a £20 membership fee.