

Subject: Provision of Rapid Vehicle Electric Charge Points

Report to: ELT 17<sup>th</sup> December 2018  
Economic Development Committee 7<sup>th</sup> January 2019  
Full Council 19<sup>th</sup> February 2019

Report by: Miranda Lee Head of Customer Services

#### **SUBJECT MATTER/RECOMMENDATIONS**

This is a briefing report to provide an update Members in relation to the implementation of Rapid Vehicle Electric Charge Point within Great Yarmouth.

#### **RECOMMENDATIONS**

Members are asked to note the update on progress for provision of a Rapid Vehicle Electric Charge Point on Fullers Hill Car Park, and to endorse the recommendation at 6.1 of the report for the charging model and fee for usage of 30p per kWh used, to be approved by Council

## **1. INTRODUCTION**

- 1.1 In 2017 Great Yarmouth Borough Council was invited to join a consortium of Local Authorities in the Eastern Region to bid for funding from a new grant introduced by Highways England for the provision of Rapid Electric Vehicle Charge Points forming part of the Highways aim under the Road Investment Strategy 2015/16 – 2019/20 Road Period.
- 1.2 The Management & Executive Leadership Team granted permission to join the consortium on the 7<sup>th</sup> August 2017. A further report on the 21<sup>st</sup> February 2018 gave an update on the consortiums Eastern Region bid for funding and the decision was made to proceed with the recommended location of Fullers Hill Car Park.
- 1.3 A report to Economic Development Committee 3<sup>rd</sup> April 2018 gave an update on progress to date with a view to a further report being presented for Members including project implantation dates and recommendations on the fee to be charged for this service provision.

## **2. BACKGROUND**

- 2.1 Under the Highways England strategy there is an aim of ensuring that 95% of the strategic road network will have a charging point ever 20 miles. Wherever possible these will be rapid charging points that can charge a battery powered electric vehicle to 80% power in under 30 minutes.

This is intended to support the uptake of electric vehicles and their use with the overall effect of reductions in carbon emissions from vehicles on our roads. Specifically new charge points will;

- Expand the public charging infrastructure available to users on our road networks
- Alleviate range anxiety by giving electric vehicle users confidence that public charging points exist at regular intervals across the whole of the strategic road network
- Benefit the communities in which new charge points are available providing additional quick recharging facility for local electric vehicle users

### 3. **PROGRESS TO DATE**

- 3.1 The initial bid and project was led and managed by Babergh & Mid Suffolk Council with the participating councils supporting. A tender exercise has been undertaken within recent months and UK Power Networks have completed the necessary investigations and survey of proposed locations and accessible power. Please refer to **Appendix A** which shows the location of the electric charging point on the Fullers Hill car Park.
- 3.2 The preferred supplier, SWARCO, has now been selected and the rapid recharge unit specification is now available. Advice has been sought and confirmed that Planning Permission is not a requirement.
- 3.3 It has also been confirmed that Business Rates will not apply under current regulations due to the 'green' nature of this provision.
- 3.4 Civil works are about to commence to prepare the foundations and power supply to the location of where the Recharge unit will be placed.
- 3.5 Installation is due to be completed and the recharge facility operational by the end of March 2019.

#### 4. **FINANCIAL IMPLICATIONS**

- 4.1 The additional funding provided of £2,000 is sufficient to cover the operation and running costs including the management payments and software and repairs and maintenance for 4 years which is approximately £450 per year. Ongoing the income generated from providing this facility will continue to cover the running costs of this facility as well as providing an income stream for the Council.
- 4.2 There are further income generating opportunities by way of advertising and sponsorship of this environmentally friendly facility within the town.
- 4.3 There are a number of models on how and what fee would be reasonable to charge. These range from having;
- a set flat fee for use, regardless of how much power used
  - a connection fee plus a charge per actual kWh used
  - a charge per actual kWh used only

**Appendix B** provides existing charging models for locations within the eastern region.

In discussions with members of the overall project and SWARCO the chosen supplier, based on experience drivers prefer a charge per actual kWh used.

Although still to be confirmed by 'Good Energy', the electricity charge is likely to be between 13p and 15p per kWh.

#### 4.4 **Proposed charging model and fee**

It is proposed to operate with a charge per actual kWh in the sum of £0.30p per kWh. This is inclusive of VAT and is an average of the charges currently in place within the eastern region.

For reference **Appendix C** gives an indication of popular electric vehicles, charge rate and time and total charge cost based on a 30p per kWh used.

- 4.5 Customers will be able to pay at the charge point by debit/credit card or sign up/already have an account widely used amongst the electric vehicle charge point networks.
- 4.6 It is further proposed to review this fee after a period of 6 months once the take up has started to grow and we the council has an understanding of the

demand for this service. Potentially the council may wish to consider an increase on this fee.

## 5. RISK IMPLICATIONS

- 5.1 This is one off funding for the implementation of the first rapid recharge point within the town and borough. The speed of take up and demand for this facility is yet to be determined, however the electric/hybrid vehicle industry is growing and there are a number of initiatives in place to encourage more people to opt for this type of vehicle.

With the Government also funding an increase in charge points across the UK highways network, we can safely assume this industry and popularity with drivers will continue to rise.

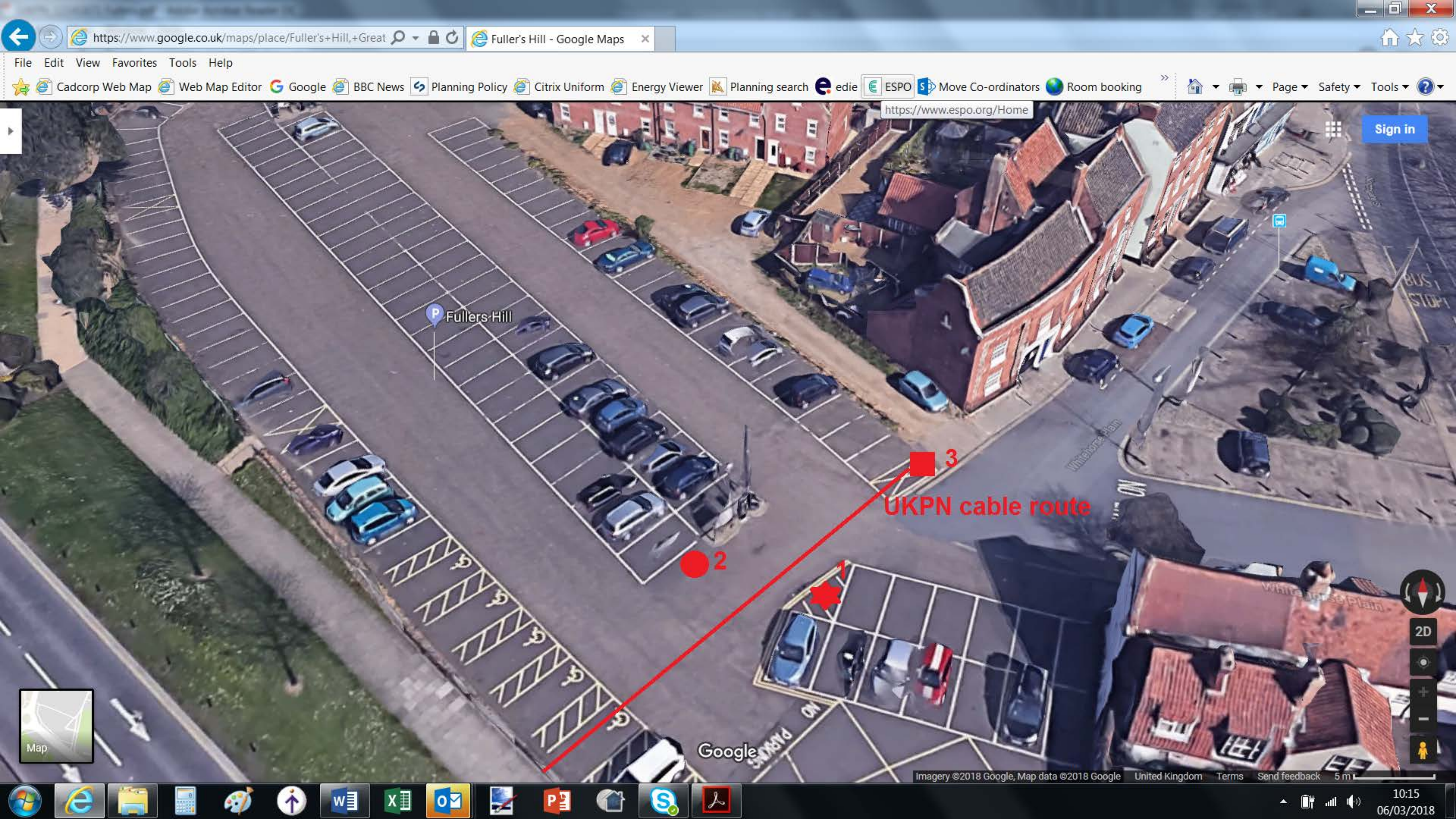
## 6. RECOMMENDATIONS

- 6.1 Members are asked to endorse the proposed charging model and fee as set out in Section 4.4 of this report.

*Areas of consideration: e.g. does this report raise any of the following issues and if so how have these been considered/mitigated against?*

Area for consideration	Comment
Monitoring Officer Consultation:	
Section 151 Officer Consultation:	<b>Yes</b>
Existing Council Policies:	<b>Yes</b>
Financial Implications:	Yes as outlined
Legal Implications (including human rights):	Yes
Risk Implications:	Minimal
Equality Issues/EQIA assessment:	
Crime & Disorder:	
Every Child Matters:	





Map interface elements:

- Map label in bottom left corner.
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- Map controls in bottom right: 2D, Street View, Zoom in (+), Zoom out (-), Full screen (person icon).
- Red line and markers: 1 (red star), 2 (red dot), 3 (red square).
- Text labels: 'Fullers Hill' (blue pin), 'UKPN cable route' (red text), 'Whitehorse Plain' (street name).



Rapid chargers as per zap map 17/9/18

		p per kwh	minimum £
St James Car park	Kings lynn	25 £	0.25
Central car park	Hunstanton	25 £	2.50
Lidl	Norwich	0 £	-
A14 south	Newmarket	30 £	-
Ortongate shopping centre	Peterborough	n/a	£ 4.00
A1M j17	Peterborough	30 £	-
A14/M11	Cambridge	30 £	-
Cambridge Belfy Hotel	Cambridge	10.8 £	6.00
Garden Court Hotel	Sandy	10.8 £	-
A1m J10	Baldock	30 £	-
Mercure Letchworth Hall Hotel	Letchworth Garden City	10.8 £	6.00
Lord Butler Leisure centre	Saffron Walden	30 £	1.50
The Cricketers	Clavering	10.8 £	1.20
M11 Birchanger Services	Bishops Stortford	30 £	-
George Yard Car Park	Braintree	30 £	1.50
Novotel Ipswich	Ipswich	10.8 £	1.20
A12 south Euro Garages	Capel St Mary	30 £	-
A12 north	Capel St Mary	30 £	-
Holiday Inn Express colchester	Colchester	10.8 £	-
Colchester United	Colchester	n/a	£ 5.00
Lifehouse Spa	Clacton on Sea	10.8 £	6.00
A12 Riven Hall Starbucks	Rivenhall	30 £	-
Lidl Maldon	Maldon	0 £	-
De Rougemont Manor	Great Warley	10.8 £	6.00
	Miton Keynes	10.8 £	6.00

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connection

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0 15 for ecotricity customers

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0 15 for ecotricity customers

0 15 for ecotricity customers

1.2 30 mins for £6

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0 15 for ecotricity customers

1.2 30 mins for £6

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0 15 for ecotricity customers

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0 15 for ecotricity customers

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1.2 30 mins for £6

0 15 for ecotricity customers

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1.2 30 mins for £6

1.2 30 mins for £6

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## Comparison of electric vehicle charge costs

Using a Rapid Charge Point - 50kW

Assuming battery charge at start is 20% and battery charged to 80% at end

**Assuming no connection fee and a cost of 30p per kWh**

Make	Model	Model description	Charge Time (mins)	kWh added	Miles added	Total Cost of charge (£)
Nissan	Leaf	2.Zero 40kWh Auto	29	24	113	£7.20
Tesla	Model S	75D Dualmotor 75 kWh AWD Auto	54	45	146	£13.50
Renault	Zoe	Rapid Charge 65kWh Auto	34	25	110	£7.38
Peugeot	Ion	47kWh Auto	12	10	44	£2.88
Citroen	C-Zero	High Line 47kWh Auto	12	10	44	£2.88
Jaguar	I-PACE	EV400 First Edition 90 kWh 400PS Auto	61	54	143	£16.20