Plugged in Places

Report by: Mike Salter (EEDA) and Ian McDonald (Future Transport Systems (FTS))

Purpose of report:

- To update the Regional Transport Forum on progress with the East of England’s ‘plugged in places’ bid and to seek support for the highlighted recommendations below.

Recommendations:

It is recommended that members of the Regional Transport Forum:

1. Receive a presentation from Mike Salter (EEDA) and Ian McDonald (FTS) on the ‘Plugged in Places’ bid;

2. Provide strong policy support for the development of a charging network for ultra low carbon vehicles, and for the East of England Plugged in Places application, in their authority's emerging third Local Transport Plan (LTP3);

3. Consider providing LTP3 funding for the installation of charging points for electric vehicles in their authority’s LTP3 Implementation Plan noting that match-funding for this can be provided via the Plugged in Places bid if successful (see main text below for more information);

4. Work with their local planning authority colleagues to introduce development control polices that secure provision of charging points / infrastructure in new developments via S106 / planning conditions; and

5. Agree that RTF should have officer level representation on the ‘Plugged in Places’ Steering Group. It is proposed that this role be taken on by Southend Council as part of their role as RTF Secretariat but RTF may wish to review this.

1 Background to ‘Plugged in Places’

1.1 ‘Plugged in Places’ is a Government-led initiative to promote the installation of publicly accessible electric charging points for electric vehicles in cities and regions in the UK. Through is, there is potential for up to 50% match-funding to be provided by Government for the installation of charging infrastructure.

1.2 On behalf of a number of partners, EEDA has submitted an expression of interest to the Government’s Office of Low Emission Vehicles (OLEV) for the East of England to become a ‘Plugged in Place’.

1.3 The project has been given a working title of ‘EValu8’ and has the vision of providing an operationally effective electric vehicle charging network across the
East of England, using it as a research and development platform to build upon the region’s significant innovation capabilities and help develop a new electric vehicle economy.

1.4 The East of England has applied for funding through Phase 2 of the Plugged in Places initiative. Milton Keynes, London and the North East were successful in the earlier Phase 1 bidding round. As it currently stands, there is a total of £20 million match-funding available for successful Phase 2 bids.

1.5 The East of England bid can be summarised as follows:

- a £5.4 million infrastructure project, with £2.7 million match-funding requested from government (OLEV);
- the East of England network will form a key part of the UK’s charging infrastructure, linking in with adjacent charging infrastructure already being developed in London and Milton Keynes;
- the bid will build on the East of England’s significant innovation capabilities and develop a new electric vehicle economy;
- the bid focuses on 8 key clusters, supported by a wider network;
- it is a partnership bid with more than 50 private and public sector partners involved.

1.6 Following submission of our expression of interest on 1st June, OLEV has shortlisted the East of England’s proposal and asked for a full submission to be made by 29th October. There are around 13 short listed bids in contention, of which, subject to funding announcements, 3 to 6 are likely to be chosen for match-funding in November 2010.

1.7 The opportunity is to ensure East of England businesses benefit from the new global electric vehicle economy, ranging from corporate research and development through to the many Small and Medium Enterprises (SMEs) developing new technologies and processes. Already the East of England’s low carbon industry forms 9% of the UK market and is worth more than £10bn.

1.8 In addition to the business and economic benefits outlined above, there are significant potential transport environmental benefits including:

- Transport in the East of England contributes almost 20% of all carbon emitted, with private vehicles accounting for the largest percentage. EValu8 will contribute to reducing this figure and meeting the Government’s targets of an 80% reduction in CO\textsubscript{2} emissions by 2050;
- EEDA’s East of England Transport and Carbon Study (TraCS) tested various low carbon transport scenarios, all with electric vehicles (EVs) as essential part of the mix. Scenario 3 (electric/hybrid vehicles 16% of new cars in 2020, 100% low carbon public sector fleet + early implementation) forecast carbon savings to 2031 worth £3.5bn;
- Reduced ‘Well to wheel’ CO\textsubscript{2} emissions of up to 40% compared to conventional internal combustion engines;
- Improved local air quality with zero NO\textsubscript{2} and PM\textsubscript{10} exhaust emissions.
2 The East of England Proposition – ‘Evalu8’

Project Scale

2.1 The East of England bid brings together eight clusters facilitated by private corporate leads to develop a regional recharging network. The proposed clusters are focused around major towns and cities which are at most 45-65 miles apart – an ideal range for electric vehicles.

2.2 The initial key clusters are Bedford, Cambridge, Ipswich, Norwich, Peterborough, Luton and Hertfordshire (including St Albans, Stevenage and Watford), Thames Gateway and Essex (including Basildon, Harlow, Southend, Thurrock, Chelmsford and Colchester), and Stansted Airport.

2.3 The bid seeks to install a total of around 600 charging points across the region but focused on these clusters. These will be located on on-street posts, posts at retail and leisure sites, within the car parks of private companies and local authorities, domestic charging facilities and rapid chargers. Members of the public and company employees keen to drive electric vehicles can therefore be confident that they can recharge where they need to.

Project Scope

2.4 The project has focused on five different journey types in developing the proposition for regional charging infrastructure. These are:

1. Journeys within urban areas;
2. Journeys between urban areas, including links to the adjacent ‘plugged in place’ of Milton Keynes;
3. Rural-urban journeys where there are no viable public transport alternatives, including linking in with park & ride sites and train stations;
4. London based commuting, particularly for journeys for which public transport is less viable for whole journeys, linking in with the capital’s public transport network where possible and the successful phase one bid for ‘plugged in places’ funding in London; and
5. Potential journeys to and from our ports and airports.

Project Team and Governance

2.5 The Evalu8 project partners include private sector organisations, vehicle manufacturers, electricity suppliers, local authorities, research and educational institutions. The EValu8 project overall is currently being facilitated by EEDA, with the technical support of consultants Future Transport Systems (FTS).

2.6 The East of England’s bid was deliberately established as a partnership of private and public sector organisations across the East of England. EEDA’s role has been to facilitate this important project and to assist the project consortia in establishing an independent not for profit delivery vehicle which, subject to OLEV approval, will manage and implement a successful bid. The government announcement in June 2010 that Regional Development Agencies, including EEDA, will cease to exist therefore has no bearing on project delivery.

2.7 In addition to the above, a project Steering Group for EValu8 has been established.
Membership includes representatives from key project partners from the public and private sector. The next meeting Steering Group meeting is being held on 15 September at the CENEX 2010 LCV event. Officer representation from the Regional Transport Forum will be vital to the group – it is therefore proposed that, given their RTF Secretariat duties, an officer from Southend Council takes on this role and acts as the conduit between RTF and Evalu8.

3 The Role of Local Transport Authorities (LTAs)

3.1 The involvement and support of LTA partners is clearly vital to the success of the bid and the wider promotion and take-up of electric vehicle use. Key roles on which the views and endorsement from RTF are sought include:

- LTAs should consider providing the policy context and strategic justification for the provision electric vehicle infrastructure in their Local Transport Plans (LTP3) and other local transport strategies (EEDA and FTS would be happy to develop model paragraphs and policies as start points for consideration by LTAs);
- LTAs should consider allocating funds for charging infrastructure in their LTP3 implementation plans - these could then be matched with EVALU8 funds (see ‘note on funding’ below) if the bid is successful;
- LTAs may wish to begin considering where, and how many, charging posts they would consider providing in their area including at their own sites and public car parks for use by public electric vehicles;
- Officers from the LTAs may wish to work with their planning colleagues on development control policies that allow electric vehicle charging infrastructure to be secured via planning obligations and conditions.

3.2 EEDA transport planning officers are seeking to arrange meetings with local authority officers to discuss this further, including the potential for further financial support for the installation of charging infrastructure from EEDA.

4 A Note on funding

4.1 Through the Plugged in Places bid, there is potential for up to 50% match-funding to be provided to partners for charging infrastructure via OLEV. Although there is widespread concern regarding the financial uncertainty of government funded projects, the Coalition has stated its commitment for a UK wide electric vehicle recharging infrastructure and we believe that the significant strength of the East of England’s bid should place us in an advantageous position with respect to our competitors.

4.2 In ballpark terms charging posts typically cost £5,000 each. If match-funding can be secured via a successful plugged in places bid the net cost to LTAs would be just £2,500. In addition, EEDA are examining the potential to provide further grant support to local authorities which could reduce this cost further still. This will be discussed at the proposed officer meetings noted in (3) above.
5 Further Information

5.1 Further information on Plugged in Places and Evalu8 is available via the website http://www.eastofengland.uk.com/business/plugged-in-places.

5.2 In addition, Appendix A to this paper includes a range of FAQs and responses to these to provide RTF members with further background on the proposals.
Appendix A

Frequently Asked Questions – Evalu8

1. What is the project scope (number and location of charging points)?

- EValu8 will have a total project cost of £5.4m (with £2.7m coming from OLEV, £2.7m coming from the East of England).
- This will see approx 600 charging points installed.
- Charging points will be a mix of on-street, within company and public car parks, leisure and retail sites, at home and rapid chargers.
- The location of charge points will be lead by interest and match funding levels across the region, but, due to travel patterns and population levels, the approximate split across the 8 clusters should be as follows:
  - Bedford – 71
  - Cambridge - 81
  - Ipswich - 61
  - Norwich – 81
  - Peterborough – 71
  - Luton and Hertfordshire – 101
  - Thames Gateway, South Essex – 111
  - London Stansted Airport – 20

This is NOT prescriptive, and the numbers can increase, or the distribution change according to regional support.

2. What commitment do we require from local authorities, and when do we need it?

- There are 3 main areas that EValu8 needs commitment for from local authorities and other partners:
  - i) Provide strong policy support for the development of a charging network for ultra low carbon vehicles, and the East of England Plugged in Places application, in their authority’s emerging third Local Transport Plan (LTP3);
  - ii) Commit to provide LTP3 funding for the installation of charging points for plug-in hybrid, full battery and range extended electric vehicles in their authority’s LTP3 Implementation Plan noting that match-funding for this could be provided via the Plugged in Places bid;
  - iii) Work with their local planning authority colleagues to introduce development control polices that secure provision of charging points / infrastructure in new developments via S106 / planning conditions; and

- We need to know the number of charging points you would like to install, and the postcode of installation (this can change, but an indication is required as part of the bid).

- A double-headed, intelligent, fully installed charge point costs £5,000, of which half would be funding by OLEV. So the cost to an organisation would be £2,500 for 2 charging points (we do not currently recommend single charging points, as the installation process is the most expensive). EEDA is currently exploring whether the net cost to local authorities could be reduced further but further work on this needs to be done and this will be explored in proposed meetings between EEDA and local authority transport planning officers.
• We have a sample letter of commitment available on the project website: http://www.eastofengland.uk.com/business/plugged-in-places.

• We need the letter of commitment back by October 1st to ensure the compilation of the strongest bid. Representatives from EEDA’s transport team would be pleased to help authorities with further advice on the funding opportunities available (see Q3 below) and completion of the required letter of commitment.

3. What are the funding options?
   • To match the OLEV grant, the project needs 50% match-funding.

   • This could come from companies, organisations or local authorities. This lump sum would be paid to EValu8 Limited, and would be used to fully install the number of charging points.

   • The funding could potentially come from LTP3, S106 or Deferred Parking Revenues.

   • Deferred Parking Revenues is where parking revenue offset can be considered as payment in kind with respect to costs towards charging infrastructure. However any location that is going to use parking revenue offset must have the usage data that supports the case that any conversion to a dedicated EV charging bay, with accompanying charge infrastructure will incur cost to the party that have financial control over said space. Offset will be allowable over a total period of 8 hours per day between 8.00 and 18.00 Monday to Friday 52 weeks of the year. In additional, if a cost reduction is offered to the EV charge bay user, the lost revenue element of the consumers charge and the revenue taken at the parking site can jointly be offered as matched funding.

4. What is the proposed PPP public sector model?
   • If the bid to OLEV is successful, Evalu8 Ltd will have a single source provision contract with a service provider to provide and operate the charging posts.

   • Public bodies will then be able to pay for and acquire posts via Evalu8 in one of two ways, depending on what is most attractive to the public body.

   • The first way will be via direct up-front payment of the public body’s contribution to Evalu8 which will then result in installation of the required number of posts.

   • The second way is via a PPP scheme. The PPP will be available for public bodies and institutions from approx July 2011 with an expected contract period of 5 years. The PPP will allow public bodies to stagger their payments over a five year period and therefore avoid having to make their payment up-front; to allow this to happen, contracts will be established between public sector organisations and Evalu8 Ltd which will include repayment terms.

   • Repayment of the debt will attract a maintenance and management charge. Maintenance, repair and service responsibility will fall to the PPP and be carried out by the service provider.

5. Who pays for the electricity?
   • For the duration of the project, the EValu8 project has received an offer of support from a regional energy supplier, who will provide 100% renewable energy for the charge posts.

   • It is a requirement that all charging posts are separately metered.

   • In domestic locations, where the customer chooses their energy supplier, customers will be given the choice of switching suppliers to receive free energy for vehicle charging. (For a period of time to be agreed with the energy supplier). Additional negotiations are currently taking place with a number of energy providers.

   • After the initial 2 year sponsorship period, the cost of the electricity will fall back to the charge post operator who will be able to recharge the cost of electricity as part of a parking charge.
6. What are the ongoing costs?

- For maintenance and insurance coverage, the host (in the case of post provided by local authorities, this will be the LAs themselves) is responsible.

- All posts are monitored remotely as part of the back office network and can be isolated if a fault occurs.

- A brief 6-monthly 30min service is required which is expected to cost around £60. It is expected that this service will be carried out by an accredited body authorized by EValu8. Indeed this body could be part of a public bodies’ works department.

7. What is the installation process?

- The technical team from EValu8 will complete a site survey, including an electrical test.

- A matrix has been developed to chose the most suitable specific location (including ease of connect, grid infrastructure, cost of installation, proximity of electricity supply, visibility of post, parking layout)

- Once the specific location has been identified and agreed, the technical team will begin installation work – civil engineering work on site. This will install all underground ducts required, and the base of the post.

- The post will be drawn down from the EValu8 supply stock, and an EValu8 accredited technical team will install it.

- Local authorities will be responsible for obtaining the relevant public work warrants and planning permission where required.

- The relevant DNO will make the connection, and the post will go live (can take up to 2 weeks to go live).

8. Where will the charging posts be located?

- Posts will go wherever there is a demand, and if we have not thought of something we would like to hear your ideas. Likely locations include:
  - On street (roadside)
  - Council owned car parks
  - Multistory car parks
  - Sustainable transport “hubs” (bus/train/park and ride sites)
  - Leisure and tourism sites (including hotels)
  - Supermarkets
  - Hospitals
  - Airports
  - Company car parks
  - Business parks
  - New build residential and commercial properties
  - Domestic units within people’s homes

- The EValu8 team will provide information on site selection (especially on street) to ensure good visibility, high potential utilisation, ease of installation etc for the post. A “scoring” system has been developed and will be shared shortly.

- A majority of the charging points will have to be publically accessible. Within company car parks this can be to visitors to the site (eg they can be located within secured areas of the car park). Obviously domestic charge point locations will not be shared publically.
9. Are there any issues regarding planning, signing and lining?

- Charging posts do not need planning permission, except in very specific situations. These would include proximity to listed buildings, or the installation of large PV canopy charge posts.

- The DfT has approved a sign for electric charging posts, and these would be installed next to all of the EValu8 charge posts.

- If the parking bay next to a charge post needs to be reserved for electric cars only (or PHEV/REV), and this involves a change in the use of the land, and Traffic Regulation Order will have to be submitted. This will vary from authority to authority, and the Evalu8 team will work with the relevant planning team to ease the process.

- Posts installed off road (eg company car park) may also install information boards – with content provided by Evalu8 - eg how to charge, contact numbers etc. Evalu8 will work with the relevant local authority with regards to information boards in on street locations.

10. How will the project be managed?

- EValu8 Limited will be a special purpose, not for profit, limited company set up specifically to deliver this project across the region.

- EValu8 will have several “streams” including a technical stream, a communications stream and a management stream. These areas will have specific remits in delivery of the project. They will feed into the EValu8 Steering Committee, which will have overall responsibility for the successful delivery of the project.

- The Steering Committee will be made up of key stakeholders from across the region, including vehicle manufacturers, energy supply companies, local authority representatives and corporate representatives.

11. How will the project develop?

- The duration of the Plugged in places project is 2 years, however the project is meant to be the beginning of an East of England network, part of the national charging network. As technology evolves, it is expected that the network will change and adapt to embrace new developments.

- Increased ULCV uptake will require additional infrastructure. The period of the PPP will also be expandable to assist in the adoption of such changes in technology.

12. Who should I contact for more details at this stage?

- The first point of contact should be:

  EValu8@futuretransportsystems.co.uk