

Local Action Review - Update November 2013

Prepared by Green Sphere on behalf of the Low Emission Partnership

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1 Introduction and Overview

- 1.1 This report provides a broad review of current progress being made by local Councils in delivering low emission measures and identifies examples of good or interesting practice that could be developed into case studies for the LES hub.
- 1.2 Information was collected from a variety of sources including; direct contact with Council officers (telephone and e-mail), Defra information on air quality grant provision and related progress reports, Council LAQM progress reports and action plans, general internet search and journal articles. Further information on the review process can be found at Annex 2.
- 1.3 Overall, the review identifies a wealth of action being undertaken by Councils across the UK to reduce local transport emissions. Those Councils that have historically led the way continue to make progress in most areas with new LES policy documents approaching adoption and LES planning guidance starting to be used more routinely. Within these lead Councils there are good examples of LES measures starting to be delivered on the ground. Perhaps the most encouraging outcome of the review is the number of other Councils that are also starting to adopt LES policies and programmes. New examples of LES measures have been identified suitable for inclusion on the LES hub.
- 1.4 Section two provides a headline summary of progress and developments, section three provides an initial consideration on implications for LEP work programme. Annexes one and two provide a longer list of interesting projects and supporting information on methodology respectively.
- 1.5 Further tables providing greater underlying detail are available on request.
- 1.6 The review is inevitably selective and does not identify all relevant work which is currently ongoing. Planned launch of the partnership's Low Emission Hub will allow capture, review and dissemination of a greater volume and variety of current activity.

2 Action Summary

LES Planning Policies

- 2.1 Five well developed examples of LES planning guidance have been identified from Bradford, West Midlands, Sefton, Sussex and Mid-Devon. The majority are local/regional 'guidance' only. This follows a move away from the development of SPDs under the new NPPF. In Mid-Devon the LES planning guidance is embedded into the Development Management Plan giving it a more formal status within the planning regime.
- 2.2 The Bradford, West Midlands and Sefton guidance notes broadly follow the principles of the SPG planning guidance document provided by the LEP in 2011. In these cases developments are classified as minor, medium or major based on a number of criteria, typically including the amount of traffic generation and the need for travel plan assessments. For all developments set standards for EV charging are provided and for larger developments a wider range of mitigation is expected. Developers are required to provide various levels of emission statements demonstrating how their proposed mitigation package will offset emissions.
- 2.3 Under the 'transport and air quality' section of the Mid-Devon DMP developers are required to provide a 'low emission assessment' using the LET tool (or similar) in all cases where there will be significant traffic generation. The resulting damage costs must be presented after mitigation has been applied. The method includes an ability to collect CIL contributions or to require specific mitigation through sec 106 agreements. Standard requirements for EV charging are dealt with separately under the 'Parking' section of the DMP and only apply in three towns where there are existing air quality concerns.
- 2.4 In the Sussex document an 'emissions mitigation impact' can be triggered by a wider range of factors including proximity to an AQMA. The document then recommends the use of a 'mitigation calculator' that incorporates the use of the Defra emission toolkit and the Defra IGCB Air Quality Damage Costs to calculate resultant damage costs. A 'pick' list of potential mitigation measures is provided that can be used to offset the damage costs. There is no standard requirement for EV charging associated with this approach
- 2.5 At the time of this review, the Sefton and Bradford documents have been formally adopted, while the West Midlands and Mid-Devon documents are expected to be adopted by the end of 2013. The Sussex document is currently in the public consultation phase.

LES policy documents

- 2.6 Four Councils have complete or almost complete overarching LES policy documents (these are believed to be the only examples in the country). York's was the first to be adopted in 2012 followed more recently by Oxford and Bradford. The latter is also being developed into a regional West Yorkshire LES. The West Midlands document is likely to be the first regional LES to be adopted early next year (note also that the Scottish Executive have indicated intentions for a Scottish LES, which is the first move towards a national document, though the process/timescale for this is currently uncertain).
- 2.7 The emerging LES documents demonstrate how Councils are going beyond the minimum LAQM duties by striving to reduce all emissions as far as possible across wide areas of their jurisdiction. This represents a move away from the traditional LAQM action planning approach which tends to focus on delivering specific concentrations of pollutants in AQMAs. The recent documents from Bradford and West Midlands take a further step by linking emission reduction directly to public health impacts and benefits.
- 2.8 With the exception of the Oxford document the measures within the LES policies are focused mainly on reducing emissions from transport with direct linkages through to separate carbon reduction policies that cover emissions from domestic homes, businesses and council estates. The Oxford document is unique in that it provides a single holistic emission reduction framework for both toxic and global air pollutants. A number of other Councils have been identified as having started or planning to develop overarching LES policies soon. These include the West Yorkshire Councils (regional document), Southampton, Exeter and Maidstone.

LEZs and scenario testing

- 2.9 There are a large number of Councils involved with undertaking feasibility studies for LEZs or wider LES scenarios. At least 20 Councils outside London are known to have received some level of air quality grant funding to undertake investigations into the feasibility of LEZ measures and/or other LES based measures (excluding 2013/14 awards for which information has not yet been received). It is estimated that upwards of £500,000 of Defra air quality grant funding has been invested in this area to date (conservative estimate for AQ grant rounds 2011/12 and 2012/13).

- 2.10 At present the findings from the majority of the LEZ studies remain outside the public domain and it has been difficult to obtain any information on the likely emission impacts of such schemes. Bath and NE Somerset are planning to report to members on their LEZ study in December 2013. Results from a number of the larger studies including a micro-simulation study from York, a city wide study from Sheffield and regional studies for the West Midlands and West Yorkshire should be available in early 2014.
- 2.11 The Farnham Traffic Management and Low Emission Feasibility Study (January 2013) is one of the few comprehensive studies released to date. This report indicates that an LEZ in isolation would have little impact on NO₂ concentrations (the impact on other pollutants was not considered) and that access restrictions for diesel cars could potentially be a better option for NO₂ reduction. The report also indicates that a 20mph speed limit is likely to increase NO₂ concentrations. A similar style report is expected to be available for Maidstone soon.
- 2.12 Outside London only two other examples of UK LEZ controls have been found. The first is in Oxford where a Euro 5 emission standard for buses will officially come into force in Jan 2014 via a TRC. A voluntary scheme has been operational for some time through an agreement with bus operators. In Norwich a Euro 3 emission standard is in place for local buses.

ECOSTARS

- 2.13 The ECOSTARS Fleet Recognition Scheme was launched in 2009 by the South Yorkshire Councils (lead by Barnsley). Currently 11 other UK Councils have adopted the scheme and at least another 10 have expressed an interest. A European arm has also been launched which currently has 6 members and aspirations to grow to 9. Each individual UK scheme currently has between 17 and 55 different fleets signed up to it. In Mid-Devon the scheme has been successfully applied to taxis. At present a lack of funding is limiting further uptake of the scheme by other Councils and expansion of the taxi scheme.
- 2.14 The scheme has recently undergone a review of the ratings criteria and now gives increased credit to those operators adopting alternative fuel technology such as bio-methane and CNG. A quantitative and qualitative emission assessment tool is currently in the process of being developed for ECOSTARS members that will allow them to demonstrate both emission and cost savings as a result of their scheme membership and subsequent operational changes. Barnsley Council have indicated that they would support the development of a detailed quantitative ECOSTARS case study for inclusion on the low emission hub.

Public Health

- 2.15 West Midlands Councils have commissioned Health Impact Assessment work as part of their LES delivery. At present the main aim of this work is to develop a public health evidence base to support the adoption of LES measures but undertaking of this process has helped to develop stronger local links with public health officials within these Councils.
- 2.16 In Sussex regional workshops are being undertaken to identify areas of common interest upon which future work programmes can be based. In Kent and Medway a county public health representative sits on a health sub-group of the regional air quality partnership and a leaflet and poster have been developed detailing how they will work together to improve public health. They are also developing a national template and toolkit to assist all Councils in incorporating air quality into Joint Strategic Needs Assessments. Other Councils are embarking on large scale public health and marketing campaigns (eg. Newcastle and G.L.A).
- 2.17 A general observation made during the review process is that currently there appears to be a wide variation in levels of interaction between air quality and public health staff, with some air quality staff finding it much easier than others to engage with public health officers.

Other Activities

2.18 During the course of the Council review process a wide range of other LES activities have been identified. These include:

- Examples of successful LES procurement
- Council fleet improvement measures and emission assessments
- Low Emission bus projects (retrofit and alternative fuels)
- EV charging network development
- Freight measures (including freight transshipment)
- Bio-methane research and feasibility studies
- Anti-idling campaigns
- Low Emission taxi initiatives
- Low emission car clubs
- Hydrogen fuel research
- Travel planning activities to encourage car sharing or modal shift
- Road infrastructure and traffic management projects

2.19 A table further detailing some of the most interesting projects is provided as Annex 1

3 Implications for LEP Work (initial thinking)

Impact of review on hub development

3.1 The Council review has identified many interesting projects and areas of activity suitable for inclusion on the hub, but only a limited number of these include quantitative cost benefit and emission impact data. Many of the more technical feasibility studies relating to LEZs or other LES scenarios are either running behind schedule or have not yet been released into the public domain. Many of these studies are unlikely to become available as quantitative case studies until at least mid-2014, after the official hub launch.

3.2 Due to the lack of examples that include quantified cost benefit and emission data it is recommended that in the first instance the hub should include two levels of 'case study' as follows:

Level 1: Simple qualitative hub entries that provide basic factual information about what was done, how and by whom (majority of early entries)

Level 2: Fully developed and quantified case studies (minority of early entries)

3.3 It is anticipated that as the technical LEZ and scenario testing studies start to emerge and LES planning guidance is formally adopted and used more quantified cost benefit and emissions data will become available. This will allow the number of quantified case studies on the hub to be increased at a later date. There also remains an option to upgrade some of the Level 1 entries by undertaking retrospective cost benefit and emissions analysis with the relevant local Councils but this has associated resource implications.

Areas for further development

3.4 During the course of the Council review a number of areas have been identified where there are opportunities to provide further assistance, information and guidance to Councils. Those considered to be of most relevance at the current time are:

EV charging

3.5 A large number of Councils are already engaging in the provision of EV charging networks either through the provision of council owned public recharging networks or by requesting private installations through the planning system. In some areas a strategic and well planned process is being followed to deliver a well organised and easily accessible network. In other areas there is a 'scattergun' approach with EV delivery occurring in an ad-hoc nature and without any inter-compatibility between schemes. There is scope for the development of further guidance for both Council officers and developers being asked to comply with new planning requirements. This could include:

- Guidance on current and emerging practice planning requirements for EV infrastructure, including general principles, typical conditions and ongoing considerations/issues **currently in chain as low emission topic note 1]**
- Guidance on how to develop and fund a strategic EV charging network – including options for delivery of inter-compatible back office services and recommendations on levels of provision
- A simple guide to different charging options and their application in different operating environments (or sign posting to existing technical information sources)

Low Emission Zones

3.6 Once results from the ongoing LEZ feasibility studies become available there is scope to undertake a comprehensive review and comparison of all the studies in order to provide Councils with:

- A guide to the different methodologies that can be applied to assess the impact of LEZs and other LES scenarios including commentary on the cost, relative merits, limitations and typical outputs.
- A summary of the main findings from each report in order to identify broadly what different levels of LEZ entry criteria are expected to deliver in terms of both emission and concentration reduction within different types of environment e.g. large city, small town etc. This will reduce the level of similar work required by other Councils and in some case may negate the need for it altogether.

Supporting Academic Projects

3.7 A number of interesting academic projects were identified during the review process that may be worthy of further investigation / involvement. These include:

- INTERREG North-West Europe (NWE) – including JOAQUIN which supports the development of health orientated air quality policies
- SWORN – EU project looking at providing a hydrogen fuelling station in Birmingham
- SPEAR – green procurement project to encourage low carbon procurement.
- ASPIRE – Public Health project run by King’s College in conjunction with Sussex Councils
- FREVUE –Use of electric vehicles in European urban environments (including G.L.A)
- CAPIRE – development of roadmaps to foster electrification of road transport
- CAPACITIE – University of York – novel approaches to air quality monitoring

Note: Further work is on-going to assimilate and apply the findings of the review (potential supplement or part 2 for the strategy paper?)

Annex 1: Longer list of interesting LES projects

| Project type | Council | Action |
|--|--------------------------------|---|
| LES procurement and Council fleet measures | Sefton | Emissions based procurement tool based around powerpoint slides that can be shared with other Councils |
| | Coventry | Have developed a highly successful green vehicle procurement policy for the council fleet which has delivered 44 electric and hybrid vehicles. The policy is being incorporated into the regional West Midlands LES |
| Low Emission Buses | West Yorkshire | Have obtained almost £1million for retrofitting of school buses from Cleaner Bus Technology Fund |
| | York | Have obtained Green Bus Funding for an electric park & ride service, an electric bus linked to a housing development and an additional two electric buses to serve the university. |
| | Coventry | Electric Park and Ride operation |
| | Milton Keynes | Inductive charge electric bus trial |
| | Leicester | To fit NO ₂ filters to 32 buses in poor air quality areas |
| | Kent and Medway | SCRT retrofit projects on buses |
| EV charging networks | Sussex | Have successfully developed a regional EV charging network including rapid charge facilities |
| | York | Have implemented a Pay as You Go public recharging network which requires no membership and allows payment for use by mobile phone |
| | Source London | Largest UK charging network |
| Freight measures | Bristol / Bath and NE Somerset | Freight transshipment centre in operation with calculated emission savings available |
| | Teignbridge | Recent AQ grant fund for mini-freight transshipment study |

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|---------------------|-------------------------|--|
| Bio-methane | Leeds | Use in refuse trucks and refuelling infrastructure |
| | Bradford | Trial of bio-methane vans with emission savings reported |
| | Sheffield | Use in council fleet and refuelling infrastructure |
| | Wakefield and York | CNG feasibility studies being commissioned |
| Anti-idling | GLA | Clean Air Fund campaign |
| | York | Anti-idling feasibility study including emission impact assessment and cost benefit analysis |
| | Glasgow | Have issued fines for anti-idling. Other large anti-idling campaigns in place around other Scottish towns and cities |
| Low emission taxis | Mid-Devon | ECOSTARS taxi scheme and Nissan Leaf taxi example |
| | Leeds | Hybrid taxi emission modelling project with ITS Leeds |
| Car clubs | York | Movement of council grey fleet to car club vehicles |
| | Luton and Milton Keynes | Electric Car clubs - e-car |
| Hydrogen technology | Birmingham | SWORN hydrogen refuelling project based at University of Birmingham has first UK fleet of hydrogen cars |

This is just a selection of the many projects that have been identified. In addition to those projects listed in table 1 many Councils are also actively engaging in a wide range of travel planning and other transport initiatives to encourage walking, cycling, car sharing and the use of public transport.

Annex 2: Council review methodology

The review process was broken down into four main tasks:

- **Task 1:** To contact in person and obtain a full update from those Councils already involved with the work of the LEP and known to be making good progress with LES measures.
- **Task 2:** To identify further Councils undertaking interesting LES projects and to contact as many of these as possible for an update and further information.
- **Task 3:** To undertake a high level review of the information received and to record it in tabulised form to allow easy future reference and follow up.
- **Task 4:** To start to develop a list of projects that may be suitable for early inclusion on the LEP hub and to identify other emerging projects / areas of interest that could be the subject of future workstreams.

Task 1: An initial 'hit' list of 9 Councils / groupings were contacted by telephone and/or e-mail. A brief summary of progress within each Council / grouping can be found in Annex 1.

Task 2: A list of the Air Quality Grants released in 2012/13 was obtained from Defra and copies of all the progress reports for these projects. This list of projects was reviewed and those potentially most suitable for hub entry identified. Where possible contact was made with relevant Council officers to check the level of progress and obtain any associated documentation. Where contact could not be made directly with the Council the LAQM progress reports and action plans were obtained from websites. Further internet and journal searches were undertaken to identify other interesting projects which did not form part of the Defra air quality grant process. These include Green Bus Fund projects, Cleaner Bus Technology Funded projects and those funded by CENEX.

Task 3: The information from tasks 1 and 2 was collated into two tables as follows:

Table 1: An overview of known Council progress in all areas of LES work. The table identifies projects of particular interest that are worthy of further exploration and may be suitable for inclusion on the LES hub.

Table 2: A more detailed breakdown of the projects identified as being of particular interest in table 1.

Both these tables continue to be updated as further information is received.

Task 4: Potential case studies under each of the following headings have been identified:

- Low emission strategy policy development
- Low emission planning guidance
- Low emission planning delivery
- Low emission scenario testing
- Low emission zone feasibility studies
- LES procurement
- Public health and promotion
- Fleet measures (freight, bus, taxi, Council fleet, ECOSTARS)
- Other including: Car clubs, Travel plans, Alternative fuel infrastructure , Anti-idling campaigns