

TRANSPORT FOR LONDON

SAFETY, HEALTH AND ENVIRONMENT ASSURANCE COMMITTEE

SUBJECT: GLA UPDATE ON AIR QUALITY

DATE: 15 DECEMBER 2011

1 PURPOSE AND DECISION REQUIRED

- 1.1 The GLA paper attached at Appendix 1 provides the Committee with an update on the implementation of the Mayor's Air Quality Strategy. Kulveer Ranger, the Mayor's Director of Environment and Digital London, will attend the meeting of the Committee to present the paper.
- 1.2 The Committee is asked to note the paper.

2 RECOMMENDATION

- 2.1 The Committee is asked to NOTE the paper.

3 CONTACT

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Transport for London, Safety, Health and Environment Assurance Committee, 15 December 2011

GLA Update on Air Quality

1 PURPOSE

- 1.1 The purpose of this paper is to brief the Committee on the implementation of the Mayor's Air Quality Strategy (MAQS) and discussions with central government and stakeholders. The Committee is asked to note the report.

2 BACKGROUND

- 2.1 Air quality has improved over recent decades in London and is far better than during the Great Smog of 1952. In the last ten years, levels of fine particulate matter, the pollutant that has the greatest impact on human health, have fallen, as a result of measures such as the London Low Emission Zone, bus retrofit and the cycling revolution in London.
- 2.2 Nevertheless, research commissioned by the GLA in 2010 showed that in 2008, air pollution contributed to an equivalent of around 4,300 premature deaths in Greater London. In addition, many vulnerable people, such as children, older people and people with existing heart and lung conditions, may be restricted in the range of activities they can undertake as a result of air pollution.
- 2.3 The Mayor and the boroughs are legally obliged to work towards the Government's air quality objectives (the requirement on the Mayor, as put in place by the GLA Act, is stronger than that on the boroughs). The Government, in turn, is committed to meeting limit values set out in the 2008 European Union (EU) Air Quality Directive.
- 2.4 The MAQS was published on 14 December 2010 and contains a broad range of measures to reduce emissions of both particulate matter (PM) and oxides of nitrogen (NO_x) and deliver health benefits for Londoners. In addition to policies such as taxi age limits, further phases of LEZ, support for low emission vehicles, smarter travel initiatives and energy efficiency programmes, the Strategy identified the need for short-term local measures to help improve local air quality at the small number of priority locations in central London most at risk of exceeding EU limit values. TfL received a £5million Clean Air Fund (CAF) from the DfT to deliver these local measures in 2011/12 at priority locations
- 2.5 It is clear that action by the Mayor needs to be complemented by national measures and this was supported at the last SHEAC meeting. The GLA is encouraging the Government to introduce vehicle scrappage/ retrofit programmes, a national LEZ framework and tax incentives for cleaner vehicles. Financial support is also needed. In finalising the MAQS, there was an increasingly difficult financial context and as a consequence it contains a number of unfunded proposals which TfL and the GLA have been pressing central government to fund.

3 TIME EXTENSIONS FOR LONDON TO MEET EUROPEAN UNION LIMIT VALUES

- 3.1 In 2010, central government applied for a time extension for London to meet the EU daily mean limit value of 50µg/m³ for PM₁₀ (particulate matter smaller than 10 microns). This extension was granted, with a 50% margin of tolerance on the limit values to June 2011, meaning concentrations of PM₁₀ up to 75 µg/m³ do not count as exceedences prior to this date. Since

June, the PM₁₀ limit value has reverted to 50µg/m³. Meteorological conditions have been particularly adverse in relation to air quality in the first half of the year, causing serious pollution episodes in March/April. Nevertheless, as at 21 November, no sites had exceeded the permitted 35 exceedences of the hourly mean limit value for PM₁₀ (taking into account the margin of tolerance to June).

- 3.2 In September 2011, the Government submitted action plans to the European Commission to show how NO₂ limit values will be met across the UK as soon as possible. Defra's modelling shows that in London, compliance with these limit values will not be achieved until between 2020 and 2025. Due to differences in monitoring and modelling methodologies across Europe, it is difficult to compare NO₂ levels in major European cities. What is clear, though, is that almost every major European city, like London, is exceeding NO₂ limit values.
- 3.3 The reasons for this are complex. One cause is the increase in number of diesel cars in London, which emit more NO₂ than petrol equivalents. In addition, recent Euro standards, in particular for diesel cars, have failed to control NO₂ emissions as expected. Some research has shown that a Euro 5 diesel car emits three times as much direct NO₂ as a Euro 2 equivalent. This makes it difficult for national or regional authorities to control NO₂ concentrations in the short term.

4 ENVIRONMENTAL AUDIT COMMITTEE'S INQUIRY INTO AIR QUALITY

- 4.1 In November 2011, the House of Commons Environmental Audit Committee published a follow-up report to its 2010 inquiry into air quality policy in the UK. The Committee concluded that the Government was still not taking enough action to reduce emissions, and recommended:
- The creation of a Cabinet Office-led Ministerial Group to oversee delivery of a new cross-government air quality strategy.
 - Closer engagement between central and local government.
 - Establishment of a national framework of low emission zones.
 - Ensure that air quality is central to public health reforms.
 - A national public awareness campaign.
- 4.2 Specific to London, the Committee noted that with regard to the Olympics, 'it is proving difficult for the Mayor to make the required policy trade-offs and achieve acceptable levels of air quality'. The Localism Act 2011 allows the Government to pass EU financial sanctions on to local authorities (subject to certain provisions), the report notes that 'Any fines must take account of contributing sources of pollution from beyond a local authority's boundary and policy areas beyond its control.'

5 EUROPEAN COMMISSION REVIEW OF AIR QUALITY POLICY IN THE EU

- 5.1 In summer 2011, the European Commission launched a formal review of air quality policy in the EU. This could lead to a new Directive with updated limit values being developed, which would have significant impacts on London's air quality policy.
- 5.2 The GLA believes that limit values must be based on health evidence, so that resources can be focussed where they will deliver the greatest health benefits. In addition, the compliance regime needs to take into account factors that are outside the control of regional, or even national, authorities, such as transboundary pollution.
- 5.3 The GLA is working with a number of partners in European regions and cities to ensure that the views of local authorities are taken into account in the Commission's review. It is expected that a new Directive will be proposed in 2013, with the legislative process being completed two or three years later.

6 THE MAYOR'S AIR QUALITY STRATEGY

- 6.1 The MAQS contains a wide range of measures to improve air quality in London. Some have been underway for some time while others have been recently implemented and others are still being further developed or awaiting funding. Policies include:
- A 15 year age limit for taxis;
 - Tighter LEZ standards;
 - Delivery of Electric Vehicle infrastructure;
 - Encouragement of uptake of low emission vehicles;
 - Further improvements to the bus fleet and
 - Encouraging smarter choices and sustainable travel behaviour.
 - Reform of the planning regime in London to make it 'air quality neutral'.
 - Energy efficiency schemes for homes and workplace.
- 6.2 All these measures are expected to improve public health by delivering significant long-term reductions in air pollutant emissions and improvements in London's air quality. Modelling shows that by 2015, PM₁₀ emissions in central London will be around 30% lower than in 2008 and NO_x emissions across London will be 35% lower than in 2008. However, due to the need to consult stakeholders, provide compliance time for operators and other operational practicalities some of these policies do not come fully into force until 2012 or later.
- 6.3 Consequently the MAQS identified the additional need for short-term local measures to help improve local air quality at the small number of priority locations in central London most at risk of exceeding EU limit values. As highlighted, TfL received a £5 million Clean Air Fund from the DfT to deliver a range of local measures during 2011/12 at priority locations.
- 6.4 So far, the CAF has provided:
- Taxi-marshals providing advice at mainline stations to reduce engine idling;
 - Targeted cleaning and application of dust suppressant to road surfaces;
 - Planting of one green wall at Edgware Road tube station, and other vegetation at priority locations.
 - Over 200 businesses have committed to taking action to reduce their emissions.
- 6.5 Over the period until the CAF ends in March 2012, these measures will continue, along with additional measures such as:
- Bus retrofit.
 - Deployment of dust suppressants at waste and construction sites.
 - A major anti engine idling awareness campaign.
- 6.6 A monitoring programme is underway and TfL will provide an initial report on the CAF to the DfT in summer 2012. This will also be provided to SHEAC.

7 BUSES

- 7.1 All London buses already meet the Euro IV standard for PM₁₀ (and are thus compliant with the next phase of LEZ). The MAQS included a commitment to retrofit all older buses so that by 2015 they also meet the Euro IV standard for NO_x. However, it was clear that there was no funding in the TfL Business Plan for this measure. TfL and GLA have been working closely with DfT to seek funding of a NO_x retrofit programme.

- 7.2 The Government recently announced that, subject to TfL matching the amount, they would make £5 million available to retrofit buses in London with Selective Catalytic Reduction (SCR). This £10m will allow c900 buses to be retrofitted – this will be Europe's largest SCR retrofit programme. SCR reduces NOx emissions from a Euro III bus by 70%. So this programme should reduce NOx emissions across London by up to 400 tonnes per year. TfL will target buses that run on routes in 'priority' locations where buses contribute greatly to NOx emissions and exposure is high.
- 7.3 TfL is currently trialling SCR on buses and the experience gained in the trial will inform the retrofit programme. The first retrofitted buses should be on roads by summer/autumn 2012 – we will be seeking to get some into service ahead of the Olympics. A robust monitoring programme will be put in place, so that the benefits of SCR can be better understood.
- 7.4 TfL is reviewing how to match fund. Given the constraints on funding, there is clearly no 'spare' money, so further efficiencies will be required or spending rephased. However, TfL recognises that it is important to deliver further environmental improvements. TfL is also investigating what further leverage can be secured through contractual arrangements and processes, alongside a specific retrofit programme. This continuing reduction of Euro III buses in the fleet, including the replacement of articulated buses, will accrue additional benefits and will also help to reduce the number of Euro III buses needing to be retrofitted.

8 FURTHER FUNDING

- 8.1 TfL has already undertaken significant work to identify and deliver cost savings. It is vital to London's economy that core expenditure on Crossrail and the Tube upgrades is protected. Due to funding constraints, there are measures that would be beneficial to air quality that are not possible to deliver, unless additional funding is provided by central government.
- 8.2 In cases where there is a policy gap due to lack of funding, options to address or mitigate this will be considered but the GLA Group is reliant on additional support from central government as well as national action to tackle emissions (eg through vehicle taxation policies, scrappage schemes and rail electrification). There are significant risks to London's ability to meet EU limit values for both PM₁₀ and NO₂ (as well as Mayoral targets for CO₂ reductions) if measures to improve air quality are not progressed.

9 OLYMPIC ROUTE NETWORK (ORN)

- 9.1 TfL, working with the ODA, DfT and the GLA, is currently undertaking modelling to assess the potential air quality implications of the ORN. The Strategic Environmental Assessment (SEA) of the original Olympics Transport Plan was informed by the ODA's ORN Air Quality Analysis Phase 1 Report. This report examined the baseline air quality through consideration of existing monitoring data and air quality reports. Modelled emissions (as opposed to air quality) impacts were included in the SEA but these were based on an early iteration of the ODA's traffic modelling and broad assumptions on what could be achieved through traffic demand management (TDM). It was not possible to model accurately the air quality impacts prior to the detailed design of the routes and associated traffic management. As design of the ORN and associated traffic management has developed, it is essential that an assessment is made of the potential implications for air quality – and, if required, mitigation.

10 NON TRANSPORT MEASURES

- 10.1 A number of initiatives are underway to reduce emissions from non transport sources in London. The new London Plan, published in the summer, includes details of how new developments in London should be 'air quality neutral'. This will encourage developers to use the cleanest technologies possible in developments, and will help planning authorities to require offsetting of emissions, either on-site or off-site, through Section 106 agreements. The GLA will publish Supplementary Planning Guidance early in 2012, which will provide further advice on the principle of 'air quality neutral'. Linked to this, the GLA will shortly publish emission standards for new biomass boilers in London, and intends publishing emission standards for Combined Heat and Power (CHP) plants in 2012.
- 10.2 The GLA is also working with London Councils to update the Best Practice Guidance on minimising dust and emissions from construction and demolition sites, which was originally published in 2006. This will take into account new techniques that have been developed over recent years, and will also include emission standards for construction plant.
- 10.3 The RE:NEW and RE:FIT programmes continue to reduce emissions of CO₂ from homes and workplaces in London. As heating systems are significant sources of NO_x across London, these energy efficiency schemes are also improving air quality.

11 NEXT STEPS

- 11.1 The GLA Group will continue the implementation of a wide range of measures with benefits for London's air quality, with policy in general encouraging mode shift to cleaner modes and uptake of cleaner vehicles and technology. Key measures to be implemented over the next few months include:
- LEZ Phases 3 and 4.
 - Taxi and PHV age standards.
 - Cleaner Taxi Fund.
 - Clean Air Fund, including a major awareness campaign.
 - Emission standards for new biomass boilers.
 - Publication of updated Best Practice Guidance for construction and demolition sites.
 - Publication of Supplementary Planning Guidance, including advice on the principle of 'air quality neutral'.
- 11.2 The GLA Group will continue to seek to raise awareness of the issues and help people take action to reduce emissions and their exposure to harmful pollutants – in line with the House of Commons Environment Audit Committee's view of the importance of raising awareness of air quality. This will include an integrated communications approach including external stakeholders, linking various schemes and measures within an umbrella programme.
- 11.3 The GLA will also continue to lobby the Government to provide funding for the full implementation of the MAQS. In addition, the GLA will press for national measures, including a certification scheme for NO_x retrofit devices, scrappage/ retrofit programmes and tax incentives for cleaner vehicles.

12 RECOMMENDATION

- 12.1 The Committee is asked to NOTE the report.