DELCIVERING THE
LONDON 2020 VISION
An analysis by WSP
November 2013
Foreword

The London 2020 Vision, launched by the Greater London Assembly in Summer 2013, is a refreshingly good read. With characteristic Boris panache it flows easily and is probably one of the most accessible and engaging vision documents produced by any city.

But beyond the big sweep, just how practical and deliverable is it? It’s easy to set out a big picture vision but without the detailed plans and the practical realism behind it, a vision remains just a dream.

We’ve run the maths. We’ve taken three key elements of the Vision: housing, transport and environment. We’ve analysed current progress towards the bold vision targets and provide our view on whether the big targets will be achieved. In some cases they will, but in many cases there remains a gap between aspiration and delivery. We want the vision to be a success. We want London to be one of the best cities in the world. So our review also includes four key recommendations on how London can deliver its bold vision.

Paul Dollin
Executive Director, WSP
Contents

04  Executive summary
05  What’s it like to live in London today?
06  Housing
12  Transport
18  Environment
22  What’s needed: WSP’s key recommendations
Executive summary

We mustn’t underestimate the challenge London faces. By 2021 there will be 1 million more people, who will create 16% more journeys on our buses, roads and trains and need 400,000 more homes and 450,000 extra jobs.

Just providing this many homes is the equivalent of building 30 new Shards every year in terms of floor space, or the equivalent of residential development spanning an area twice the size of Hyde Park. Every year for the next eight years. And it won’t stop there – another 750,000 more people will crowd into London by 2031 and a further 600,000 by 2041. So we must plan for the future very carefully, making strategic decisions now that will safeguard our future as a world-leading city.

Mayor Boris Johnson’s London 2020 Vision lays the foundations for a plan that can deliver on these challenges. It focuses on providing more homes, managing demand on the roads network and providing new transport infrastructure, providing locally generated energy and improving environmental factors such as air quality. However in some areas the focus is not quite right and there are solutions that would be more beneficial both economically as well as for the long term prosperity of our city.

This paper addresses the practical issues and offers a solution that could ensure London is the city Boris has envisioned come 2020.

- We can provide the amount of homes needed but that it will require changes to the current planning system to make up the current lag of 12,000 homes per year.
- The £7bn allocated to new district heating network should go into retrofitting all homes instead, saving Londoners on average £125 per year on their energy bills.
- Our roads network is at capacity so we need to focus on managing demand on buses and trains especially at peak travel times, using creative incentive schemes to reward those who travel less and off-peak.
- Placing jobs in the centre and homes in the outskirts, as usual, will exacerbate congestion. Why not flip this balance on its head and get less people travelling in through the bottle neck?
- We must look at imaginative ways to get people off trains in peak travel, like creating shared business hubs so people can work from home but in a local facility that offers smart technology and a productive working environment.

Here are our key recommendations:

1. Increase house building by giving the Mayor greater control over London’s planning.
2. Reward commuters for travelling fewer stops and more off peak
3. Create jobs closer to homes through better planning of the Opportunity Areas
4. Refocus energy policies away from local generation to energy efficiency
Introduction - What’s it like to live in London today?

London is a thriving city. This is reflected in the City’s success as Europe’s leading business centre. It’s reflected in a growing population – up 12% between 2001 and 2011. And ask many Londoners and they’ll tell you they’ll live nowhere else.

But it’s not all rosy. Londoners today say the cost of housing, the cost of living and traffic congestion are their three biggest bugbears. And it’s also a more unequal city in terms of average income.
Housing

London is forecast to have 1 million new residents by 2021 needing:

- **400,000** new homes
- **450,000** new jobs
- **4,000** new primary school classes and other social infrastructure

...then

- **750,000** more new residents by 2031

...and a further

- **600,000** by 2041

To meet this population growth, the GLA has forecast a need for 40,000 new homes to be delivered every year until 2021. The projected population beyond then would equate to 30,000 per year from 2021 to 2031, followed by 24,000 per year from 2031 to 2041.

This is a huge challenge. In terms of floor area, 40,000 new homes equates to 30 Shards per year. At a density of 150 homes per hectare (based on the average target densities in the London Plan), this is the equivalent of 270 ha of residential development every year – equivalent to almost twice the area of Hyde Park. Every year for the next eight years.

While this seems a huge area, there’s no shortage of space in London today to accommodate London’s housing needs.

Net planning permissions for new homes in London have averaged around 45,000 over the past three years, so there’s no shortage today of applications for new homes, and approvals for new homes being given.

This rate of permission gives the lie to the suggestion, often made, that the GLA would have to break into the greenbelt. Such an action would be politically toxic and not necessary.

The largest challenge for London is upping the build rate.

While London needs an additional 40,000 new homes every year, and while 45,000 new homes a year are given planning permission, only 23,000 new homes were completed last year. This, combined with 5,670 vacant units coming back into use, means that the completion rate falls 12,000 homes short of the need every year. And this is a longterm issue – even before the recession, only around 34,000 homes were completed each year.
The Opportunity Areas, identified in the London Plan, provide the most eye catching development, but most new housing across London takes place in smaller developments.

The Vision focusses on development of 19 of the 33 Opportunity Areas identified in the London Plan. The vision states that the 19 Opportunity Areas can deliver 201,300 homes, the Plan that all 33 should deliver a minimum of 233,630 by 2031. This represents around 1/3 of the homes forecast to be needed by 2031.

The remaining homes will need to go in denser suburbs. The Outer London Commission report, the Housing SPG and now the Town Centres SPG all support intensifying the delivery of residential development in Outer London’s town and suburban centres, at densities up to 400 units per hectare.

This is far in excess of current average densities in London which, while much higher than elsewhere in the UK, are still only at around 120 units per hectare overall. This higher density reflects that one person households are expected to account for 68% of overall household growth between 2011 and 2031, and to make up 43% of all London households by 2026. It also reflects the need for apartment development and the frank reality that the cost of traditional houses are beyond the means of many Londoners today.

In the Opportunity Areas, there are three challenges

1. Actual progress on delivering the Opportunity Areas is well behind the required trajectory. Despite being first identified in the 2004 London Plan, only 10 of the 33 Opportunity Areas have agreed masterplans and planning consents in place. This is compounded by the slow rate of delivery from the consented developments.

![Average density of new homes built by region (dwellings per hectare)](image)

![Projection of household types in London, 2001 to 2031](image)
2. Even with strong aspirations today, the average timescales for each planning stage from Opportunity Area inception to detailed consent are typically eight years – before even a brick is laid.

<table>
<thead>
<tr>
<th>Planning Stage</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opportunity Area Planning Framework adoption</td>
<td>4 years</td>
</tr>
<tr>
<td>Outline or masterplan consent</td>
<td>2 years</td>
</tr>
<tr>
<td>Detailed consent</td>
<td>2 years</td>
</tr>
<tr>
<td><strong>Total from inception to detailed consent</strong></td>
<td><strong>8 years</strong></td>
</tr>
</tbody>
</table>

The proposals outlined by the Mayor in the London 2020 Vision can be considered under the following three headings:

**i. Financial Proposals**
- Secure a longterm and stable housing settlement for the GLA to support the supply of homes across all tenures in the capital.
- Remove the cap on local authorities’ borrowing power to enable them to build more new affordable homes.
- Create a London Housing Bank by 2016, backed by the London Pensions Fund Authority and other pension funds, to motivate London’s private rented model.
- Enable more middle income Londoners to own their own homes, through expanding the Housing Covenant for Londoners, shared equity and part ownership schemes.

**ii. Legislative Proposals**
- Legislate on strategic planning decisions to allow the Mayor to call in more, and unblock stalled decisions.
- Introduce a ‘use it or lose it’ planning permission for developers.
- Require all land owning Whitehall bodies to publish details of their landholdings in the capital and establish Joint Ventures so that surplus sites can be brought forward to market.
- Social landlords and boroughs must give greater priority to working households when it comes to affordable housing provision.

**iii. Planning and Opportunity Area Proposals**
- More transport investment to enable sites to come forward for development.
- Of the 400,000 homes we will need over the next ten years, the vast majority can be built on the brownfield Opportunity Areas we have identified.
- Base the next version of the London Plan on the capital’s need for 400,000 more homes and 450,000 jobs by 2025.
- Realise the full development potential of the 32 existing Opportunity Areas in the next London Plan and TfL business plans.
- Identify new Opportunity Areas for regeneration by 2030.
- Empower London Councils to lead work on viable development plans for transport schemes that generate growth.
London needs to crack the housing challenge, and if it’s going to be a balanced city it has to solve the housing shortage.

3. Our research shows some 60% of the Opportunity Areas’ housing numbers are dependent on significant transport infrastructure improvements. Therefore one of the biggest contributions to increasing the supply of new housing would be to accelerate the delivery of the requisite transport infrastructure.

The infrastructure requirements to complete these Opportunity Areas include:

- Crossrail 1
- Crossrail 2
- HS2
- East Croydon station
- London Overground extension
- Tottenham Hale interchange

Similar problems also exist outside the Opportunity Areas.

How can London deliver on housing?
Our suggestions

The Mayor’s proposals will all help free up the log jam and we support them – all with the exception of a blanket ‘use it or lose it’ approach to planning consent. Our concern with the use it or lose it proposal is that, while it seems beguilingly obvious to force developers to get on with developments, the reality is much more complex. 60% of the Opportunity Areas housing depends on transport infrastructure being delivered, so it would be unfair to penalise developers for non-implementation in cases where their ability to commence and their phasing of development are dependent on external factors.

In addition to the measures set out in the Vision, we believe there is still more to be done. London needs to crack the housing challenge, and if it’s going to be a balanced city it has to solve the housing shortage. London needs to speed up the delivery of the Opportunity Areas, and it also needs to get more development happening fast in the suburbs. We think this will continue to be a challenge for the Boroughs. In general, residents – the people who elect the councillors – are the most opposed to further development in London. Once you’re there, you’re happy.

So faced with this opposition, we believe Boroughs will never have the real incentive to approve more houses and to encourage developers to get building.
1. The Mayor needs more direct control over planning across London.

This could include the identification of new Opportunity Areas and the proposed Strategic Outer London Development Centres, and then driving these hard. It would be a more strategic ownership of the planning process – speeding this up and recognising the need for a faster transition than the Boroughs can provide.

2. London needs to actively promote home sharing.

London already has the highest number of homes where two or more families live together in the UK. Not just students, but a wider range of citizens. And there is major potential for this to provide a major, cost effective way of reducing the housing pressurecooker. In London today, 740,000 households have two or more bedrooms than they need – nearly 25% of all households. Many of these homes are owned by the people who live in them – empty nesters and those living alone due to home breakdown. Even converting just 2% of these homes every year to either two separate dwellings or very simple HMOs would provide an extra 15,000 homes – more than closing the current gap. Designed right, these schemes could also become ways to grow community cohesiveness. A BBC poll published in October 2013 found London to be the loneliest place in the UK with over half of respondents saying they experienced a degree of loneliness. Promoting home sharing, or renting a room, as a way to overcome loneliness is no longterm or nirvanic fix. But we do believe it has a place, that there’s a role for London to promote this as an innovative solution, and also as a way to help hardpressed Londoners given that the Government already provides tax relief on rentals.

“Nearly 25% of homes have two or more bedrooms than they need. Converting just 2% would provide an extra 15,000 homes per year.”
Without building (or converting) more, London will be a cozy place for London’s home owners – warm in the glow of rising house prices and smug in their nest egg.

But beneath this London will become a top heavy and more unequal city. A city where the only way our next generation can work in London is by staying with their parents, or by taking a stratospheric salary. Or a city where we have to relocate any non essential jobs elsewhere in the UK and up schemes such as Seaside and Country Homes – providing more than persuasion to encourage elderly social tenants to grey by the sea. The trend is imperceptible, but year on year, housing becomes more expensive in London than today.

The temptation is to take a gentle, gentle approach, but if the Mayor is serious, the Vision provides the perfect time to solve London’s housing challenge.

And if London doesn’t up the housing rate?

Index of mix-adjusted average house prices in London, 1969 to 2012, adjusted for inflation, (1990 = 100)

Without building (or converting) more, London will be a cozy place for London’s home owners – warm in the glow of rising house prices and smug in their nest egg.

But beneath this London will become a top heavy and more unequal city. A city where the only way our next generation can work in London is by staying with their parents, or by taking a stratospheric salary. Or a city where we have to relocate any non essential jobs elsewhere in the UK and up schemes such as Seaside and Country Homes – providing more than persuasion to encourage elderly social tenants to grey by the sea. The trend is imperceptible, but year on year, housing becomes more expensive in London than today.

The temptation is to take a gentle, gentle approach, but if the Mayor is serious, the Vision provides the perfect time to solve London’s housing challenge.
Transport

London travels. To work. To the shops. To see friends.

Each Londoner spends an hour on average travelling around 15km a day. For commuters, spending 2-3 hours per day commuting is not uncommon.

15km average daily travel
2-3 hours commuting daily
3/4 all journeys in capital

London travels. To work. To the shops. To see friends.

Each Londoner spends an hour on average travelling around 15km a day. For commuters, spending 2-3 hours per day commuting is not uncommon. London residents make up around 3/4 of all the journeys made in the capital (so don’t blame the tourists too much for your crowded Tube, even if they do stand on the left).

Together London and its visitors make around 20 million trips every day – on a network that is operating at or close to capacity during peak hours. Over half the distance travelled is by car, with rail, tube and bus representing the three largest public transport ways of moving London.

In a business as usual world, as London grows so does the demand for travel

TfL figures for the past ten years show that there is a nearly linear relationship between London’s population, the people working in London, London’s day time population and the number of trips made. The only difference is that as roads become more congested, so more journeys are made on bus, tube and bike. This is the business as usual world which the Mayor foresees in his vision. A city with an extra million residents by 2021, a city with many more jobs and a city which continues to make more journeys.

Most of these extra journeys will be on public transport

The Vision makes a number of new proposals for new river crossings, better traffic management, more cycling facilities and investigating new road tunnels. However, the new big ticket items proposed by the Vision are for significant new investments in public transport.
The present Mayor’s Transport Strategy is estimated to cost £35bn over the next five years and this programme of additional investments will easily amount to the same again. All of this is required. We know that to raise London’s house build rates we need to boost capacity in the transport network. We also know that many of London’s transport routes are over capacity today – at least in the peak periods, travelling into Central London in the morning, and out again in the evening. We also know that congestion is one of Londoners’ biggest bug bears. So if London is going to continue to be a great city, having a credible transport plan has to be high on the Mayor’s list of priorities.

Raising the money to do this work will be the largest challenge

Drawing up a long wish list of projects is the Mayor’s easiest task. Much harder is the challenge of raising the money to build the wish list. Without the money, the wish remains a wish. To make real progress, Boris needs a way to raise the funds without having to go cap in hand to central Government to get his way every time.

This is why the London Finance Commission’s “Raising the Finance” report is so important to the execution of the Vision. It’s already being seen. The Northern Line extension to Battersea is the first transport scheme in England to be funded through tax increment financing (TIF). Under TIF financing, funds for the extension infrastructure schemes are funded through the promise of future council tax and rates from the Nine Elms regeneration project.

Successful delivery of the Mayor’s Vision will need many more similar schemes, as well as others recommended in Raising the Finance, such as the ability of the
Mayor to raise funds through a stamp duty levy on London property transactions. Appropriate controls would be required – making sure that TIFs don’t become a Mayoral slush fund and that local tax raising doesn’t soak firms who can’t move elsewhere. More progress is needed to make this a reality.

Even if London could raise the finance for its wish list, London’s transport strategy needs to be more imaginative.

The Mayor outlines the case for a stable 10 year funding settlement so that TfL can deliver an impressive list of much-needed infrastructure improvements:

- install an additional station on Crossrail 1 at Woolwich and links to London City Airport
- a transport link from Kensal Green to Crossrail and an additional Overground station at Old Oak Common
- the Northern Line extension to Vauxhall, Nine Elms and Battersea
- four-tracking the West Anglia Line
- electrify Gospel Oak to Barking on the Overground and extend it to Barking Riverside
- relieve congestion through river crossings in places like Silvertown and Gallions Reach
- extending the Bakerloo line beyond Elephant and Castle and the DLR to Bromley
- a new Thameslink station at Brent Cross - Cricklewood
- a single Euston-King’s Cross-St Pancras interchange station
- upgrade the three Wembley stations; redevelop Tottenham Hale, East Croydon and Waterloo stations; and rebuild Bank and Holborn Underground stations
- extend the tram network to Sutton, Crystal Palace and to Wimbledon with a second track
- put 2,000 new buses for London on our streets by 2020

Even these ambitious investments will not, on their own, provide a long term solution to London’s growth-fuelled transport demands. The transport investment proposed in the Vision will meet the growth in demand until around 2031, but beyond that even more investment will be required.

In effect, the Mayor’s current transport forecasts assume that Londoners will continue to travel the way they do today, that technology will have no role in changing travel patterns and that, to thrive, the city needs to forecast its likely growth and then secure colossal infrastructure investments to deliver the requisite transport capacity.

This is how it works in London. All of London’s future growth is formulated in the London Plan which is essentially the Mayor’s spatial development strategy. The London Plan contains indicative employment capacity and minimum number of homes within each of the 33 Opportunity Areas and the 10 intensification areas. This is where the bulk of new homes and jobs for London’s growing population will be focused.

“The transport investment proposed in the Vision will meet the growth in demand until around 2031, but beyond that even more investment will be required.”

Transport continued ...
If London's aspiration is to be the greatest city on earth, then it needs to think how a future London will look and also how London will travel. The notion that we should simply continue to build transport infrastructure based on current housing development patterns and the transport demands they generate should be challenged. There are four main reasons against this approach.

There is an opportunity for London to think differently about how it travels

Much of London's transport infrastructure is underused today. Flattened against the doors of the District Line from East Putney to Embankment is hardly the best way to start the day. Yet the tubes travelling the other way are almost empty. And travel in either direction at 11.00am and you can choose your seat.

London's commuters will continue to spend two to three hours a day travelling, potentially more as increasing numbers have to travel to serve a larger Central London.

The suburbs stagnate. London’s centre has a huge, and growing, gravitational pull. Firms like Google will continue to choose their British Headquarters to be in Central London. London’s suburbs will continue to be turned into dormitory areas, from which workers then commute into Central London each day.

The cost is huge. London will need ongoing massive investments in infrastructure beyond those proposed by the Vision to continue meeting transport growth - fuelled by land use patterns which encourage longer commuting trips in peak periods. Ongoing maintenance costs will also be significant.

Can London do it differently? We say yes. By being much more savvy in where homes and jobs are located and by being active in shifting the peak using off peak travel incentives. We make three recommendations to complement the Vision’s aims on transport:

1. **Plan to reduce travel, not increase it.**
   The main areas of growth in the Vision and London Plan lie in the Opportunity Areas, but they will exacerbate the need to travel. Under the current plans, around 60% of the 164,000 homes earmarked for development in the Opportunity Areas lie in Outer London. 75% of the 388,000 jobs are in Inner or Central London. The Vision therefore simply encourages more commuting, worsening the very problem the transport Vision is trying to address.

   Optimising the Opportunity Areas and promoting a new balance of jobs and housing through new Strategic Outer London Development Centres (see box out on p16) would have the opposite effect. Locating more homes near the centre, and developing more jobs further out would have a double benefit. Firstly it will reduce the average distance Londoners have to commute to the centre. Secondly it will mean that more commuters will be travelling out from the centre to go to work, travelling on trains and buses that have spare capacity in the non-peak direction.
Transport continued ...

2. Shift the commercial focus away from central London

We need to shift the business focus away from central London if we are to manage transport demand in the longterm. Developing business facilities in the suburbs will not only help to reduce peak travel congestion but will regenerate the outer areas of London, encouraging more and more companies to have non-central London offices. These ‘Urban Villages’ across London will mean people can live and work in the suburbs without having to go through the bottleneck of central London everyday.

The concept of Strategic Outer London Development Centres has already been floated by the London Plan Policy 2.16 and, with input from the Outer London Commission, the Mayor has published draft Supplementary Planning Guidance on town centres which provides guidance on implementing the Strategic Outer London Development Centres.

The Centres are intended to foster economic growth beyond Central London in ways which will help achieve the Mayor’s wider objectives – which include tackling congestion and carbon emissions by reducing the need for long-distance commuting.

Their implementation will require:
- planning policy and frameworks
- strategic infrastructure plans
- new development and refurbishment
- transport accessibility and capacity upgrades plus other infrastructure
- management and investment (including Business Improvement Districts)
- improvements to the business environment and public realm
- promotion, branding and marketing.

They are envisaged by the draft SPG to be business locations of different types with distinct strengths, which can be enhanced without significantly undermining other locations. As a general principle, the draft guidelines contemplate require specialist rather than mixed use development, while noting that in some circumstances (such as supporting new office provision), mixed use development that includes housing can play an enabling role.

We support the Strategic Outer London Development Centres concept, with two suggested refinements:

- They are encouraged to promote the development of shared business hubs

Is there a future of shared business hubs providing a local office across the Strategic Outer London Development Centres and London’s other town centres – the ‘Urban Villages’?

Creating business hubs both supports reducing peak travel and also helps create and maintain local communities. Staff working locally help support the coffee and the sandwich shops, shop at lunchtime and – even better – can be home to see the kids before the end of the day. Friends are made, local contacts developed, residents become close to their communities rather than just sleep there. And if you could do that just by swiping your Oyster card for access it would put London at the heart of a jobs innovation.
Plan for more residential development as part of the Strategic Outer London Development Centres, to complement the onset of new jobs

We foresee that a combination of population growth and market pressure will lead to more demand for residential development in the Strategic Outer London Development Centres. Since the draft guidelines were published in January 2013, the population forecasts have already increased. In addition, the emerging picture is that delivery of housing is already behind the previous (and lower) targets. We think these factors will change the needs of the Centres so that they will require an injection of new housing. Outer London’s town centres need to be revitalised to reverse their decline and make them places that people will want to visit. We believe we should go a step further and make them places where people will also want to live.

3. Encourage reduced journeys and off peak travel

London’s transport network creaks at the seams but really during peak periods and London needs a much more active strategy to spread out how the network’s used over the day. Public transport growth is forecast to increase by 1 - 1.2% so if we reduce the morning peak by 10% we would curb peak hour public transport growth by effectively 10 years - buying us more time to tackle capacity issues.

Other cities are already cottoning on.

- Singapore is offering free travel for commuters finishing their journeys before 7.45am, runs a cash reward scheme for commuters travelling off peak and is working with 12 large organisations including BP Singapore, under a TravelSmart pilot to stagger their working days.
- Holland’s Slim Werken Slim Reizen (Smart Working Smart Travel) Platform aims to get 150,000 extra office workers travelling outside rush hour every year. Embracing and promoting flexible working hours and self scheduling are key parts.

There’s no reason that London shouldn’t adopt the same ideas, but even get more imaginative.

Oyster provides an easy way to track Londoner’s travel habits so rolling out similar – or even better – schemes is already backed by good technology. Free travel for commuters touching out before 7.45am is an easy start. London should also encourage commuters to get off one stop early because just reducing every commuter’s journey by 500m creates an extra 10% of peak capacity in the network. Oyster can track journeys now, so armed with every commuter’s regular journey we can all be rewarded for getting active, or getting up early and getting to work.

“Reducing every commuter’s journey by just 500m creates an extra 10% of peak capacity
Beyond the rhetoric, the Vision sets out three core priorities for London’s environment:

- A city dominated by local generation and on the way to an energy efficient housing stock
- Meeting [European] air quality targets
- 2 million more trees planted by 2050

Focus on energy efficiency not a heat network

The Vision is dominated by a strong target – to generate 25% of energy from local sources by 2025, and ‘to have a plan’ to retrofit all properties in place by 2020. Both are plans which have barely made it off the drawing board so far.

The London heat plan provides the main way which energy will be generated from local sources – using spare heat from data centres and industry and piping this to areas of heat need – swimming pools, other buildings, for example. London First estimated that decentralising a quarter of London’s generation would require a combined heat and power capacity of 1800MW of electrical and 3400MW of thermal. Approximate cost between £5bn and £7bn, saving around 3.5million tonnes of CO₂ emissions.

In contrast, the aspiration for energy efficiency is pitiful. Over half of London’s homes were built before 1940, 15% in the 19th Century or earlier. These homes are less energy efficient, and as a whole account for 36% of London’s overall carbon dioxide emissions. So to spend a further seven years just preparing a plan to make homes energy efficient appears lassitude at best, kicking it into the long grass at the most cynical. This at a time when energy bills are one of the most pressing issues affecting homes and at a time when government forecasts are for electricity prices to be a further 20% higher at the end of the decade.
We believe the better approach would be to reverse the priority. Building a new network of pipes across London is massively expensive, some would say a vanity project, and it would not be money well spent. In an age of decarbonising energy supplies, moving London’s homes over to be heated by zero carbon electricity – already cabled into every home in London - is far more cost effective and far more egalitarian than supplying heat to a relatively small number of large buildings.

To put the heat network in to context:

- £7bn could alternatively provide for 12.2 TWh of wind power, saving an additional 2 million tonnes a year of CO₂ than the heat network would, for the same money.
- Supporting energy efficiency, £7bn would give £2,100 for every London home to invest in energy efficiency. Programmes which on homes would cut energy bills by £1bn a year and reduce carbon emissions by 7m tonnes – 2.5 times the amount that a heat network would deliver.

So energy efficiency is the way forwards, we believe. The biggest challenge is unlocking this potential. Making it happen. Green Deal shows just how hard it is to get homeowners to take action. But for the greatest city on earth, this is the big challenges London has to solve ahead of every other. So we’d like to see strong mayoral intervention. Its Re:new programme needs proper funding – much more than the paltry £5m it receives today. There needs to be council tax incentives for the most energy efficient properties. We need regulation on consequential improvements – requiring whole home retrofit at the same time as the extension’s added. And we need Government to support by making Green Deal much cheaper and easier to roll out.

Rather than vanity, London’s vision should be to have retrofitted every home by 2030.

“London’s vision should be to have retrofitted every home by 2030.

£7bn on energy efficiency, instead of the London Heat Plan, would cut energy bills by £1bn a year and carbon emissions by 7m tonnes.
Environment
continued ...

Air quality

The quality of the air we breathe is often the hidden part of environmental protection for cities. It wasn’t always, of course – the Great Smogs of 1952 and 1962 were barely 50 years ago and were the single largest health issue for London since the Flu pandemic of 1918.

Today air quality is less of a visible issue, but high levels of nitrogen oxides – from traffic and burning gas – and small particulates from diesel traffic together combine to make air quality a major source of deaths in London. And small particles alone were estimated by the GLA to be the cause of 4200 deaths in London in 2008. Today, NO, levels in parts of London exceed air quality targets by a factor of four and are the 4th highest in Europe. Dust levels remain high, and are exacerbated by the switch from petrol to diesel.

The air quality proposals in the vision appear bold – by 2020 you’ll only be able to drive an electric car or an ultra low emission vehicle in London, buses will be lower emission and new taxis will have to be lower emission. But these actions won’t be enough. The reality is that under current plans, a denser London will burn more gas and will travel more. And just last year the Mayor loosened air quality controls by exempting HGVs from the next stage of the Low Emission Zone, and cancelled the outer zone congestion charge. All this shows that, despite the rhetoric, London’s NOx levels will still exceed legal limits in central London by up to a factor of two.

A focus on energy efficiency rather than a heat network and decentralised energy will help as gas consumption accounts for 16% of NOx emissions across greater London. But to get serious, the focus has to come back on transport. In central London buses, coaches and taxis account together for 49% of all NO2 emissions, so cutting emissions from these to zero has to be the place to start. The proposed Ultra Low Emission Zone is the place to start, but let’s be clear; this emission zone can’t just be a token piece in the square mile. It has to extend across much of the current low emission zone, it has to restrict traffic to electric and fuel cell vehicles – not just a small step beyond business as usual. And for this to work, it has to be supported by a framework to support electric and fuel cell vehicles.

On trees: growing aspiration, but where’s the detail?

We like trees. Research shows that green spaces improve wellbeing and health, and trees are also excellent for reducing the risk of flooding and adapting to climate change. And so the Vision’s target for trees is great – increasing the canopy cover from 20% today to 25% and then 30% of London by 2025 and 2050 respectively.

Great, except it’s aspirational at best. There are plenty of places that trees could go. The Thames Chase Community Forest, in regeneration schemes such as the Olympic Park and, of course in London’s gardens. Today around 75,000 – 100,000 new trees are planted in London every year and, of course, as existing trees grow so their tree cover expands.

However there’s just not a detailed plan to deliver the increase in tree cover, even though the targets have been in place for some years. The plans alternate between a 5% in tree cover requiring an extra 1m trees in the Vision to 2m trees in Leading to a Greener London. And at the moment there’s no real record of just how many trees are felled across London every year. This becomes important since New York’s study found that trees planted today have a life expectancy of around seven years.

It’s a huge programme and it’ll be eye catching for London. But it needs to work and for that it needs a good plan, detail and clarity that it will be delivered.

If you want an indication of the scale of where 2m trees have to go, that’s the equivalent of planting:

10km²
of woodland
(2000 trees per ha)

40km²
of apple orchards
(500 trees per ha)

5,000km
of roadside planting
(1 tree every 5m)
What’s needed?

London’s 2020 Vision is bold and aspirational. We’d love it to be a success.

Here’s our four key recommendations to make sure that there’s the best chance of success.

1. Increase house building by giving the Mayor greater control over London’s planning

2. Reward commuters for travelling fewer stops and more off peak

3. Create jobs closer to homes through better planning of the Opportunity Areas

4. Refocus energy policies away from local generation to energy efficiency.

Will all of this make the city “where we can say that of all the big cities in the world, London is the best to live in?” Well there’s some competition on that.

Today London struggles to break into the first division for most global city rankings. But we all know that rankings are entirely subjective. Our Canadian colleagues were full of praise for the EIU’s top city study. Our German colleagues rate Mercer’s study highly. As a London team who’s authored this report, we love London, and think these rankings are misjudged. We’re not biased. So we think the Mayor’s ambitions are absolutely right, will keep London as the top city in the world. We look forward to seeing them delivered.
About WSP

WSP is a leading engineering and design consultancy in the UK providing integrated management and consultancy services to all aspects of the built and natural environment, ranging from management, engineering and planning, to environmental advice. With over 14,500 staff globally, and over 2000 people operating across the UK, WSP is one of the world’s leading professional services firms, working with governments, businesses, architects and planners and providing integrated solutions across many disciplines.

Contact

To discuss our proposals in detail, or any other aspect of planning, please get in touch.

Ian Liddell
Head of Development
ian.liddell@wspgroup.com
+44 20 7314 5036

David Symons
Director, Environment
david.symons@wspgroup.com
+44 20 7314 5725

wspgroup.co.uk
@wsp_uk

Research and authorial team:
David Symons, Paul Speirs, Ian Liddell, Emily Beadon