

Comments on the Mayor's Draft Energy Strategy

1. Introduction

The London Sustainable Development Commission was set up by the Mayor in 2002 to advise him on sustainability issues in London. Further details on the Commission can be found on the GLA website www.london.gov.uk

2. Methodology

In keeping with other English regions the Commission is developing a London Sustainable Development Framework. A draft Framework has been developed that contains a vision and set of high level objectives aimed at moving London towards a more sustainable future (attached as appendix 1). It is hoped that the Framework will be agreed by Summer 2003 following consultation to be launched in February.

The Commission has used this draft Framework as a means of commenting on the draft Energy strategy -see Section 4, below. Section 3 sets out a summary of the Commission's broader comments.

3. Summary of Commission comments

Overall Approach

1. The overall approach of the draft energy strategy is a sustainable one that integrates economic, environmental and social priorities. The main environmental goals of conserving resources, tackling pollution and reducing future climate change are put high on the energy agenda. Similarly, the strategy puts an emphasis on reducing fuel poverty and ensuring accessible energy services for all, thus addressing the main energy concerns on the social side. The economic aspect is also integrated in the draft strategy which refers to the growth of new green industries, a hydrogen economy for the future and worldwide competitiveness.
2. Climate change is presented as a main driver for the draft energy strategy. This approach supports a long-term outlook sustainable approach by demonstrating the links between benefits to the environment and avoiding damage to the economy in the long-term.
3. As with any sustainable approach, this strategy should seek to provide a framework for integrating economic, social and environmental concerns by identifying mutually reinforcing benefits. The strategy does indicate many win-wins that involve boosting new industries, and achieving environmental targets as well as tackling fuel poverty and stimulating the growth of energy

services companies. The LSDC supports an approach that identifies and prioritises these multiple wins. However, the draft strategy should also make some specific reference to how to avoid using crude trade-offs to resolve potential conflicts that may arise when environmental, social and economic goals appear not to be pulling in the same direction.

4. Some of the policy statements need slightly more detail, or at least reference to detailed work that is ongoing or will follow. In particular:
 - a. There should be some discussion of how to grow the green economy in a way that transfers skills from existing energy industries that may not form part of the vision for the future.
 - b. Moving to a decentralised energy industry is a commendable and sustainable goal that will empower individual citizens in new and exciting ways. However, a complex series of steps will be needed to achieve this in a smooth way. For example, the electricity distribution network will need to be transformed to incorporate widespread embedded generation. That will have to be done by London Electricity and other Distribution Network Operators (previously DISCOs) serving London. What stage have they reached in planning for this?
5. The draft strategy is weak in civil participation and its exploration of behaviour issues and how this may affect people's use of energy services. Lack of engagement with this agenda at the level of the individual could become a serious barrier to achieving the strategy's goals, particularly as many of the options for moving towards a more sustainable model of energy use require changes in the domestic sector. Perhaps some individuals could be invited to become members of the Energy Partnership to begin to involve with the wider public. Also, Energy Action areas could choose to focus on behaviour change and engaging with individual citizens. It is vital that such efforts to promote engagement with the sustainable energy agenda are spread across the community, so that there is communication with London's middle class, as well as e.g. fuel poor on energy efficiency initiatives.
6. Although many of the proposals focus on lobbying central government, Ofgem and other players, such lobbying could be more powerful if supported with plans for how to make e.g. a decentralised energy scheme work in part of London. The strategy could address the way that lobbying activities could relate to the work of the Energy Partnership and ways in which results from work in Energy Action areas could be used as models.
7. The issues surrounding airports and the energy that Londoners consume through aviation are not addressed thoroughly enough in the strategy.
8. The strategy could benefit in some places from reference to London's neighbouring region. This includes the impacts that London's and its neighbours have on each other as well as questions of job creation and awareness-raising that are explored more fully in the framework analysis.

The Vision for the future

9. The vision of a sustainable energy future for London takes a very sustainable approach with respect to the efficient use of resources and meeting the needs of today without compromising needs of future generations.
10. The vision does not include the importance of individual engagement and the taking responsibility for our actions. For changes in patterns of energy use to be truly sustainable individuals must not only have information available to them about their energy use, but must also take ownership of the issue and engage with the concepts at stake. Although a great challenge, this should be part of the vision for the future. If it were part of the vision, then perhaps it would be better translated into the policies (see point 5 above).

The Energy Hierarchy

11. The energy hierarchy offers a robust structure for making sustainable decisions about energy use and should be applauded in providing the many stakeholders involved in making energy decisions with a very simple and straightforward tool to help them approach difficult questions. The strategy could make some mention of how it intends to disseminate this approach more widely.

Setting Targets

12. The Sustainable Development Commission welcomes the inclusion of a target of a 20% reduction of 1990 levels of carbon dioxide emissions in London by 2010 in the draft energy strategy. The LSDC made a thorough recommendation on how to achieve this target and would like to see more of this information in the strategy. The target will be more convincing with supporting information on what this really means.
13. London is a leading World City and it should aim to be ambitious in its targets. Much evidence is presented illustrating how challenging it is to achieve certain renewable energy targets in the urban context. While the approach of setting specific targets on several urban initiative such as solar roofs and wind turbines is a good one, the targets are not ambitious enough. London can go further. An effort must also be made to ensure that targets for renewables set out by type (e.g. hydro, wind, solar etc.) are coordinated with an understanding of the collective long-term objectives for the renewable sector as a whole.
14. Following recent publication on the government white paper on energy making reference to major reductions in carbon dioxide emissions by 2050, it is vital that London's strategy also includes both a short and long-term targets for carbon dioxide reduction emissions.

Energy Action Areas

15. Action areas have the potential to really identify the opportunities, challenges and barriers to meeting the goals outlined in the draft strategy. However, it is vital that the initial focus on Action Areas leads to blueprints for action in **all parts** of London. Therefore the initial choice of areas is crucial and must ensure variety. Choosing a few win-win regeneration areas is a very good approach and will maximise economic, environmental and social gain. Furthermore, using the areas identified in the London Plan as areas for intensification and opportunity areas will mean placing action areas in more concentrated areas of investment - a definite help. However, if only regions undergoing major change for other regions are chosen as action areas little will be learnt about getting the vast majority of energy profligate Londoners on board. If a diversity of the populace is covered by action areas then a rollout of the results across London as a whole will become possible.

The Energy Partnership

16. Overall, the concept of an Energy Partnership to take forward this work is a good one that will encourage ownership of issues, link up important partners and lead to real results. The LSDC has some concerns though, that so much of the important implementation of the energy strategy appears to fall to the Energy Partnership. There may need to be more consideration of how the work programme is devised and the scale of the Secretariat and support team to ensure that the Partnership doesn't end up spreading itself too thinly. At the same time, it is important that the Secretariat isn't built up ineffectively so that the Partnership develops into an unwieldy, bureaucratic and ineffective organisation, compromising its important work.
17. As mentioned above, the details of many of the proposals outlined in the draft strategy have been given to the independent Energy Partnership to devise. Although independence is vital for the Partnership to gain ownership of initiatives and key issues, how will the Mayor interact with the Partnership to ensure that the goals of the draft energy strategy are truly central to their work?

London as a World Leader

18. There are many ways in which this strategy is visionary and attempts to set London out as a world leader but it could certainly do more to be a truly ambitious trendsetter. One would be to tackle the issue of selling the concept of sustainable energy to wealthier Londoners and another would be to find some more ambitious transport projects, in particular taking the airport issue seriously. A further suggestion could be implementing radical planning requirements for new build and major refurbishments, such as the recommendation made previously by the Commission to make all new build carbon neutral. World leadership roles could also be taken in mobilising London's power as a market in an innovative way and through engaging the financial sectors in new carbon markets.

Cost-Benefit Analysis in the Strategy

19. In section 7.5 reference is made to ERM's cost-benefit analysis of the draft strategy. This analysis showed the strategy to be cost effective in terms of the benefits that it will deliver over its lifetime. However, cost-effective measures may not appear so from the point of view of those implementing them because of the timescales involved. The strategy could benefit from a more explicit exploration of ways to enable those who implement changes from the domestic level to the larger-scale see benefits more quickly. This challenge needs to be recognised, as the main benefits of a sustainable energy policy will be felt in the long-term.
20. The Mayor intends to use the ERM analysis in order to prioritise measures to promote, only choosing no or low-cost options that have demonstrable benefits. These decisions must be taken with a **long-term** view. Furthermore, measures which are not low cost, but which attract interest should also be promoted, albeit to a lesser degree. There is a need to develop enthusiasm for sustainable energy, and this certainly means encouraging people to use the most cost-effective measures it should also include selling expensive, possibly trendy, new energy equipment.

4. Framework appraisal

The following section uses the Commission's draft London Sustainable Development Framework to appraise the draft Strategy.

Overall objective: We will achieve environmental, social and economic development simultaneously. The improvement of one will not be at the detriment of another. Where trade offs between competing objectives are unavoidable, these will be transparent and minimised.

Sustainable energy policy that aims to increase resource efficiency, reduce anthropogenic climate change, tackle fuel poverty and boost new green industries is an important part of achieving a sustainable society. The draft energy strategy has created solid foundations for a sustainable London by making these themes central to its approach

The draft Strategy, although strong, is weaker on social issues than economic and environmental factors and could benefit from including more civic participation in some of the proposals e.g. The Energy Partnership.

The energy hierarchy makes a good start in providing stakeholders with a user-friendly tool for making energy-related decisions. There may need to be further information available to help avoid some of the potential trade-offs between the environmental, economic and social goals, by finding solutions that are mutually beneficial over time.

In terms of transparency, the strategy could be slightly more explicit about how policy makers will make these difficult decisions between competing objectives.

Taking responsibility

1.As citizens of a world city, we will be aware of the impact of our actions on the rest of the UK and beyond, and will take a responsible world leadership role which contributes to the planet's sustainability.

An understanding of the global impact that London's energy patterns have on resource depletion and global warming underpins the draft energy strategy. There is also a good understanding of the complexities of these impacts, with recognition (3.70) of the feedback that severe climate change events elsewhere in the world can have on immigrant communities in the UK, as well as financial markets. The Mayor's support for the Royal Commission on Environmental Pollution's (RCEP) 60% reduction in carbon dioxide emissions by 2050 also ties the strategy into the long-term global context.

Although displaying a clear understanding of London's role in energy use, the draft Strategy does not appear to recognise the role that London can play as a leading world city. It is difficult to isolate particular aspects that stand out as truly unique or ambitious. In many cases, such as the hydrogen economy and the trialling of sustainable transport initiatives, London is acting behind others. As well as continuing with these initiatives, there is scope for doing something ambitious and innovative (e.g. all new developments carbon neutral). Such goals would have to be set in the context of a plan that will not compromise the competitiveness of London's economy.

The Mayor could consider partnerships with other world cities as a way to progress the energy strategy further through shared experiences and making an effort to "lead the world." London may wish to consider working through existing bodies, such as the European Sustainable Towns and Cities campaign, or the International Council on Local Environmental Initiatives (ICLEI), both of which have major capital cities as members.

The Mayor supports the approach of contraction and convergence (policy 2), demonstrating an inherent recognition of international responsibility in fossil fuel emissions as they relate to global warming. However, the draft does not explain how, apart from achieving a shift in energy patterns at home, London will promote the model of contraction and convergence more widely.

The draft strategy makes relatively few references to neighbouring counties and regions, in particular the South East. It would be valuable to recognise our energy use impacts on these closer regions and to include these close neighbours in some of the work to achieve the goals of the strategy.

There is little focus placed on engaging individual citizens with this global agenda. Giving individual citizens an understanding of their personal impacts on the world at large is a key part of stimulating action. For example, the strategy should address the challenge of linking individuals' transport decisions with the global impacts that these have collectively.

The link between energy and waste issues is well addressed with respect to the global impacts, with some concrete proposals (27-30).

Londoners have a major impact on the global environment and economy through the aviation industry. This is acknowledged in the draft strategy but the Mayor must ensure

that any further response to the government's consultation is consistent with his position in support of the taxation of aviation fuel.

The strategy gives London a world leadership role as a showcase for sustainable buildings and design. In terms of world leadership, the strategy also recognises some of the opportunities that could be open to London in terms of carbon trading and climate change issues but there could be more exploration of ways in which London's large financial sector could benefit from a new energy structure and take a responsible world leadership role in this respect.

2.All of us - individuals, households, businesses, local and regional government, voluntary groups — will have the information, knowledge, motivation and support to help us to take both short and longer-term decisions that will make us and our city more sustainable.

The Strategy contains a variety of policies and proposals concerned with the provision of energy data for London and monitoring and analysing these data (policy 33, proposal 72) as well as providing information to help a wide variety of stakeholders adopt more sustainable energy policies.

The London Database of emissions and the proposal to co-ordinate the variety of organisations currently giving advice on energy efficiency etc. are two very powerful ways of making information available to support decision-making and action on sustainable energy.

Other proposals suggest promotion techniques, pilot projects, supplementary planning guidance, studies of barriers to change, provision of targeted advice to businesses and the mechanism of the London Partnership as ways to provide knowledge and information to particular stakeholders on the many aspects of a sustainable energy policy.

Making London a showcase for sustainable buildings and design, as proposed, will be a powerful way to raise awareness of what changes are possible. It is important that these showcases are accessible and widely spread. The proposal to have at least one zero-carbon development per borough, for example, is a good way to distribute this knowledge. The energy strategy may want to point out how important it is to advertise and make such showcase projects accessible e.g. by linking visits to Museums, Travelcards or other tourist schemes.

The proposed communication working group of the Energy Partnership will be important in co-ordinating information available to the public on e.g. energy efficiency, and other ways to change energy behaviour. However, there could still be more emphasis elsewhere in the strategy on providing information and knowledge to individuals and small businesses in particular.

All awareness raising should be approached in a holistic way, not just linking the actions of individuals and organisations to the negative impacts on the environment, but also with the other benefits that actions can have on the economy and social improvement.

Although the Mayor is not empowered to provide education, this is a very important way to communicate the message about sustainable energy to the younger generation. Therefore, lobbying government on wider education issues is very important.

Both for information provision and for more concrete measures, the strategy should include support for voluntary approaches. This would include not just voluntary organisations but stakeholder buy-in from London schools, local authorities businesses etc. A buy-in process could help these key organisations work towards the Mayor's goals and, in turn, would start up a process that could lend motivation, knowledge and support to various stakeholders.

The draft strategy addresses issues of financial incentives that will support and stimulate action. Many of these proposals revolve around lobbying central government (proposal 81,83, 86,77) and Ofgem (proposal 77) - key as the Mayor has little resources of his own. The strategy could make more of the opportunities that links with national programmes and initiatives could offer. This means both capitalising on existing schemes, as well a stimulating government to offer new opportunities that fit in with London's sustainable energy agenda.

Tying in to national structures and securing stakeholder buy-in will help ensure that the strategy provides sufficient motivation to various players.

3. We will seek new and creative ways to overcome the constraints of time and money that prevent us from taking effective decisions. We will ensure that these decisions are informed by a long-term perspective.

The energy strategy should make a stronger statement about the need to sell the concept of sustainable energy in a creative way that makes it the fashionable and intelligent choice for the individual. Being energy aware needs to be given the same sort of profile that recycling currently enjoys.

This is not to say that the Mayor should be responsible for a wide-ranging PR campaign. However, the policies set in London should make it worthwhile and possible for the private sector, such as the sustainable energy industries, sustainable transport sector etc. to take sustainable energy further into the public domain. This approach is key to securing the engagement of the middle-classes in London, not targeted by fuel poverty provisions and not engaged in this agenda.

The draft strategy sets this type of supportive framework, but it could go further, for example by helping to forge links between London's creative industries and the energy industries to make sustainable energy a fashionable thing to do, a slightly different approach than usual awareness-raising activity.

The draft strategy does make an effort to use the Mayor's powers to address all types of barriers that may prevent stakeholders from taking cost-effective actions. This includes identifying and trying to overcome constraints that aren't only those of time and money. Some of the key proposals are:

- Requesting the LDA to identify barriers to investment in sustainable design and construction (proposal 33)
- The London Energy Partnership is to work on barriers to CHP (proposal 126)
- The LDA is to address the skills shortages in respect to energy efficiency measures and renewables (proposals 35, 38)

Giving the LDA and Energy Partnership the responsibility for this work will help support and inform smaller players who lack the time or money to comprehensively review these problems.

The strategy also addresses issues of funding and financial incentives, where changes in behaviour are not cost-effective. Some of these proposals involve lobbying government, and this is referred to in section 3. The report rightly points out (proposal 119) that unit costs should not be higher for the first units of energy consumed by households.

The strongest theme that targets barriers of time and money are the proposals to support Energy Services Companies (policy 6, proposal 78), which the Commission strongly supports.

The strategy could address more explicitly the issues surrounding the length of pay back periods for certain cost effective measures. London should be leading the way in considering innovative and creative schemes to encourage the uptake of measures that provide benefits beyond the occupancy/ownership of the person who pays. It may be possible to interest London's financial services sector in creating new mechanisms.

While the above approach would be suited to businesses with energy managers, the majority of the demand for energy services, roughly 80%, comes from those who don't think in terms of payback periods. The strategy should make explicit reference to tackling the financial challenge for this group, often including individuals and small businesses.

The Energy action areas in the strategy provide a good environment for testing ways to overcome barriers of human behaviour. This could be suggested explicitly in the strategy and could include testing out more direct marketing of energy services or assessments of need, different creative advertising campaigns etc.

Implicit in the strategy is London's power as a market. References are made to the value of buying electricity through green funds where renewable electricity is not available. However, there could be a more direct approach at using the collective purchasing capacity of individuals in the city in a way that takes renewables above the demand threshold needed to make production more cost-effective. This could be done by e.g. buying renewables in bulk for Londoners through a central exchange for individuals, transferring bulk contracts for electricity from non-renewable to renewable supply.

Improvements to public transport should help in reducing the time constraints that often prevent individuals from making sustainable transport decisions. These are well addressed in the draft strategy.

The many information provision proposals outlined in section 2 will make it easier for key stakeholders to make sustainable decisions without such a large input of time or money. For example, proposal 13 will provide tools to help planners integrate changes. This will help reduce the bulkiness of legislation and unwillingness to apply it.

The draft energy strategy does make the most of funds already tied up in the GLA family (TfL, LDA, LFEP, MPA) to implement some of these changes. However, in many of the proposals in relation to TfL the draft strategy appears to add little new to

their sustainable transport agenda. It is vital that the review of the Mayor's transport strategy (2003) and the follow-up implementation fully takes up these challenges.

4. We will build and sustain a powerful sense of ownership and responsibility for our city, with civic participation as the norm.

Civic participation and ownership do not form a very strong part of the draft strategy. Although it is suggested that the Energy Partnership raise awareness of sustainable energy issues, there is no mention of civic participation in the Partnership. Instead, the Partnership appears to attract those who are already engaged in this agenda. There should be some consideration of how best to involve the individual citizen, and to a certain extent smaller business, directly in owning this issue.

Energy action areas offer the space to be innovative about instilling a sense of ownership in a wide range of stakeholders. Citizens must not be passive in this model, otherwise there is a danger that short-term changes will be made but overall decisions and citizens' continuing approach towards energy services will not be sustainable.

Developing respect

5. Our city will have a culture of tolerance, fairness and respect, not only recognising London's diversity as its key strength, but also embracing nature. The right of all London's citizens and communities to pursue fulfilment will be assured, so long as this does not infringe the rights of others.

The draft strategy is relatively weak on capitalising on London's diversity. There is some mention (section 6.6.5) of using faith groups as partners in delivering energy efficiency advice, but there is no other mention of ethnic and community groups or of using London's diversity in an innovative way with respect to this agenda.

By understanding the priorities prevalent in different traditions it could become easier to encourage individual ownership. Making links with the strong community structures across London could be a good conduit for spreading information and raising awareness. Also, some of the existing building stock is in buildings such as places of worship or community halls. An understanding of how these could be managed better, or upgraded, could be extremely helpful.

There are large sections of London's population who are not involved in faith groups or particular communities. However, all of the city's population is spread over a diversity of ages and life stages. The strategy could make specific mention of how to use engagement at certain life stages to encourage ownership. It is likely that some stages will be more challenging than others. Parenthood and retirement are already used to some effect in the energy efficiency world.

The energy action area approach could be used to pilot these new approaches. The strategy does point out that some communities (section 3.70) have emigrated from countries such as Bangladesh that will feel the impacts of climate change more acutely. These communities may have a stronger awareness of the issues behind sustainable energy policies, and may prove helpful in raising the profile of sustainable energy.

The strategy is strong in its analysis of the influence of poverty on energy issues. The strategy recognises that fuel poverty affects the poorest in society, and therefore often

the black and ethnic minority groups, the elderly and disabled. In the strategy fuel poverty is approached in a sustainable way that does address the issue of providing all citizens with their needs.

However, more mention needs to be made of how to engage the wealthier sections of London's population in this agenda. Fuel poverty opens the door to providing sustainable energy to some, but the flip side of the engagement should be mentioned in the strategy too.

The strategy must ensure that the new jobs generated will be in the communities where they are needed most. Perhaps there is a way to link job provision with the areas that are fuel poor, by providing installation services etc. for neighbours e.g. the integrated approach to jobs and energy advice provided by Heatwise Glasgow.

6. Our city will be a place where everyone feels at ease and is able to enjoy life. All who work, live and play in the city will be able to pursue their objectives in peace, free from the threat of crime, violence or intrusion.

Sustainable energy is one of the cornerstones to providing London's citizens with a decent home environment. This is central for people to feel at ease and enjoy life. Sustainable energy offers affordable and secure warmth and healthy, pleasant home environments. Successful implementation of the energy strategy will make great inroads to achieving this objective.

The draft strategy takes a long-term approach and is aiming to reduce the impacts of climate change. This will ultimately ensure the security of citizens in the capital. Furthermore, an increase in the use of renewable sources of electricity will increase security of energy supply in London.

As secondary to these wider points about the impact of sustainable energy on quality of life, the draft strategy also addresses some specific issues. There is mention of the need to avoid vandalism of PV cells incorporated into street furniture and a recognition of some win-win options such as the installation of PV cells on a noise barrier on a major road that would increase the peace of Londoners multiple-fold.

The strategy may want to advise that the London Plan's Supplementary Planning Guidance on *sustainable design and construction* is tallied with the Supplementary Planning Guidance on *designing out crime* in order to recognise synergies and identify potential conflicts.

In terms of outdoor comfort, the strategy recognises that increases in air conditioning units would result in a temperature rise in certain roads and alleys, adversely affecting the general population. Efforts to find alternatives to air-conditioning for ventilation purposes should be encouraged in the strategy.

7. Our communities will be dynamic, stable, adaptable, innovative, progressive – creating a city in which conflicts will be resolved as part of a transparent and participatory process.

The strategy as a whole does take an innovative approach, encouraging the growth of renewables, CHP and the hydrogen economy in order to forward the environmental and

economic agenda in one go, and create jobs at the same time. This model does mark out London as an innovative and progressive community.

Piloting action on the energy strategy in action areas could both create and capitalise on dynamic communities within the city. In particular, proposals on community heating and energy schemes could be forwarded well in this way. However, as mentioned before, there is little emphasis in the strategy on civic participation and taking real ownership for these issues. Perhaps the strategy could suggest innovative models of communities where there is real ownership through e.g. part share in a local wind turbine.

In the creation of new energy structures, such as an overall decentralisation of energy services there is likely to be resistance from the existing players in the energy industry. Furthermore, the transition to a new structure of energy provision must be smooth, and the strategy could mention a re-skilling process to ensure that jobs are not lost, merely transferred.

As these potential conflicts arise, the Energy Partnership is likely to have an important role as a broker in conflict avoidance / resolution. It is important that the strategy addresses the question of how the Partnership may deal with conflicts between what maybe the majority, or most powerful, of its members and the progressive goals of the energy strategy.

It is important, therefore, that all stakeholders recognise the new opportunities for innovation offered in the energy strategy's vision.

Conserving resources

8. We will protect and improve the city's natural ecosystems, its biodiversity, its open spaces and its built environment. We will help to protect the wider regional, national and international environments with which London has links.

The overall direction of the strategy aims to reduce London's impact on global biodiversity by adopting a more sustainable pattern of energy use, thus addressing air quality and climate change. The strategy makes mention of the impact that climate change can have on species – causing local migration and extinctions and increase in pests, all of which the strategy aims to combat on a global scale. There is an explicit recognition (p.52) of the impacts that London's energy use can have on biodiversity beyond the city.

The strategy does a good job of pointing to some win-win solutions for energy and biodiversity. The biodiversity value of the built environment (p.52) is recognised, with proposals to work with the LDA to increase the number of green roofs and vegetated walls, encourage the use of PV cells on roofs that can also create habitats for invertebrates and the recognition of the value of other environmental features such as trees etc.

The strategy also recognises the potential of the 8% of London's area that is farmland, (p.131) pointing out the potential of using dead wood, or wood coppiced as part of forest management for energy in CHP schemes, as well as other biocrop projects. The LSDC would like to see more done in this respect, and would like to see the possibility of using land in the urban fringe for biomass production in the strategy.

The LSDC welcomes the strategy's acknowledgement of the complexity of the question of using trees as carbon dioxide sinks and supports the decision not to include sinks in the strategy to reduce London's emissions of greenhouse gases.

There is little mention of open spaces in the strategy, although the strategy recognises the clear tensions that arise when choosing sites for wind turbines. It is important to engage the local population in this process as much as possible to help provide local ownership, and therefore support of the project.

London's built environment is likely to see a boost from the strategy which will add to and enhance the built environment through the wide range of measures proposed to produce exemplary 21st century buildings that should act as a legacy well into the future.

There is a recognition too, that there needs to be more research into how to upgrade existing buildings, particularly with respect to energy efficiency and solid wall housing stock (proposal 82). The strategy should also recognise the need to follow up this research with more demonstration projects and a supporting policy framework for implementation.

Although recognising the tensions between heritage sites, and the situation of turbines and renewables on roofs, the strategy could benefit from an explicit mention of how to work with the Heritage sector both to upgrade the energy performance of existing high profile and inefficient sites and to overcome tensions in a well thought-through manner. In order to prevent duplicating existing work, the strategy may want to refer to the ongoing work of the Royal Borough of Kensington and Chelsea.

In terms of the wider context, there is little mention in the report of how London will work with neighbouring regions to help protect biodiversity more widely, although much of this is dealt with in the biodiversity strategy. There should be a mention in the energy strategy of the extent to which the LDA should work with the SEDA on the skills base for new industries. There is a careful balance to be struck here between creating jobs in the local community and coordinating the approach with other regions.

Similarly, there is little acknowledgement of the role that commuters into London could play in disseminating information outwards from the city e.g. applying energy efficiency measures that are advertised in London to their homes in adjacent regions etc. This type of approach could benefit from coordination with neighbouring regions and counties.

In both these cases the Energy Partnership could be a valuable vehicle for linking London to the neighbouring regions. To this end, the strategy does suggest that the South East Energy Agency be part of the Energy efficiency work of the Partnership.

The strategy makes some reference to airports but does not clearly refer to the impact that Londoners therefore have on the global environment. The question of future airport expansion and, more widely, the need to improve the sustainability of this sector from both the freight and passenger point of view must be addressed more directly in the strategy. The London Sustainable Development Commission is planning a response to the government's consultation on airports in the South East region and will forward this response to the GLA when it is complete, although this may only be possible after the public consultation period on the draft energy strategy.

9. We will limit and deal with our pollution, and use energy and material resources prudently, efficiently and effectively, including re-using and recycling our residual waste.

The strategy is very strong on its approach to pollution and resource use. The concept of efficient and effective energy use underpins the plan and is very well expressed in the energy hierarchy (p42). The hierarchy encourages all stakeholders to meet their **essential** energy service needs through first using energy efficiently, using renewables and finally supplying energy efficiently. This could benefit from being used as the basis of a guided information campaign to help individuals and organisations know what this means in terms of the decisions they make every day.

Material use and waste issues are well integrated in the strategy, which aims to target the three interactions of waste with energy – energy within waste, waste as an energy resource and the energy consumed in the disposal and collection of waste (page 50). The LSCDC supports the clear reference to waste minimisation (5.135) as it will help to ensure that this part of the strategy isn't used as a justification for the creation of more waste to energy plants without tackling waste minimisation.

Several of the proposals will help enable planning for power from biomass and waste including the re-use of waste wood as energy (proposal 27), anaerobic digestion where appropriate (proposal 28) and working with stakeholders to encourage the growth of new emerging technologies in this field.

The strategy also mentions the importance of transport schemes for waste vehicles. It may be possible for the strategy to go further in the demands it makes of, or work it proposes to undertake with, the waste disposal authorities.

The strategy takes a clear stance against the further expansion of the nuclear power industry. This is a position that the commission supports as it reduces the creation of long-term radioactive waste deposits and reduces the danger to local communities and workers. However, the strategy should make some mention of the inevitable tension that will exist between the drive to reduce carbon dioxide emissions and to reduce the use of nuclear power, particularly in the medium term with reference to the government's recent white paper on energy. The strategy could set in motion a group to progress the move directly from nuclear energy to renewables, particularly in the instance of the London Underground.

Getting results

10. We will make consistent economic progress – not necessarily always growth – to enable wider economic, social and environmental objectives to be pursued both in London and beyond. Business transactions in London will be conducted to high ethical standards.

There are many proposals in the strategy that support economic progress and the stimulation of the so-called green industries. There are mentions of the need to expand the skills base, work with the LDA to promote progress of existing industries, investigate the barriers to expansion of existing technologies, support the hydrogen industry and more.

Although the energy strategy is very supportive of both new and existing green industries, and is encouraging of the development of a decentralised energy supply network, it only has an expected lifetime of ten years. Although this is already better than the usual three-year government funding cycle, it is important that the strategy addresses whether or not this is long enough to provide industry with the security that they need to make the necessary long-term investments.

The strategy could address this issue in several ways. The most important should be to focus policy on transforming the market in a way that creates sustainable demand for new technologies, rather than propping them up with funding. The draft strategy may also consider other ways in which the LDA could work with financial institutions to establish security of investment.

There could be a role for the Energy Partnership in this agenda. The Partnership could bring together procurement groups so that the initial investment and development costs for new options are covered right from the outset.

Energy action areas could provide experimentation ground for understanding what sort of security is needed to make investments. Also, the designation of some energy action areas that are linked in to the regeneration work of the LDA could show how the energy strategy will progress the economy in ways that are not solely related to the green industries.

The overall goals of the energy strategy would support consistent economic progress and take London's economy into a new era. However, the process has to be very well thought through to ensure that in the medium-term there is a programme of re-skilling and planned shifts from traditional, unsustainable methods of energy supply to the new, decentralised and more sustainable industries.

The Energy Partnership could be a useful vehicle in bringing together the key economic players to help plot a viable game plan for shifting to a more sustainable and progressive economy. In order to do this successfully, however, the Partnership will have to be committed to achieving the goals set out in the strategy.

Business engagement and buy-in to the strategy will be, in part, secured through the Energy Partnership. By working together, businesses will be empowered to make the most ethical decisions in their transactions with respect to energy use. With the emphasis made on combating fuel poverty and access for all members of society to appropriate energy efficiency measures, businesses should become more aware of the role that they can play.

11.All the different parts of our economy will consistently invest in new technologies, new solutions, new plans and new ideas that contribute to achieving social, economic and environmental objectives simultaneously.

The strategy recognises, and pledges support from the Mayor and the GLA family, for many new technologies that provide sustainable solutions that go beyond energy goals. These include the hydrogen economy, community heating, combined heat and power, renewables, zero-carbon developments etc.

It is important that in boosting these new industries, new and innovative ways of distributing **existing** technology and knowledge are still promoted, even if they appear less exciting.

The strategy is committed to work on more sustainable transport solutions, new fuels etc. through TfL (proposal 49). Depending on the success of the proposals on the table, the strategy may want to encourage TfL to be more ambitious, rather than just continuing to implement its current work programme. Looking for new energy opportunities should be part of the regular review of the transport strategy.

Proposal 75 recognises the government's support for the development of carbon trading but perhaps more mention could be made of the potential of working with London's financial sector to be innovative and make the most of opportunities here. London should be a major player globally in the growth of this new aspect of the financial services sector.

Although the strategy is very supportive of growth and innovation in the economy, it is not clear where the necessary investment for all of this growth will come from. It is very important that the strategy puts the right policy and legislative framework in place to encourage investment from the private sector and create the potential for a genuine market transformation. Similarly, an effort may need to be made to ensure that local authorities have access to the funds necessary to carry out their role in delivering the energy strategy.

In the shorter-term, the Energy Partnership has been tasked with securing project funding. The strategy rightly identifies the importance of lobbying Ofgem and central government in this regard, especially policy 41 that seeks to increase government funding to London for new schemes through the coordinated effort of many stakeholders.

12.All forms of work will be recognised and valued. Paid employment will be plentiful.

The strategy suggests several policies that should increase paid employment and create new jobs in the communities where they are needed the most (Section 3.73, 5.213). These jobs would be mostly in the manufacturing and service sectors and would be supported by proposals that the LDA support increasing the skills base in the necessary sectors.

The strategy may need to address more explicitly (see earlier) how to avoid job losses in traditional energy industries in the shift to a more sustainable pattern of energy use. More thought could also be given to how London could use its new skills in the global marketplace to create further jobs for Londoners.

The strategy puts a lot of the responsibility and role of implementing the proposals onto the Energy Partnership. Although this is a good idea in many respects, the Partners will have to put in a lot of work to make the scheme successful. It is important that this type of contribution is recognised not only to ensure fair remuneration, but also to ensure that human resources aren't stretched too thinly for the Partnership to be effective and that the goodwill of volunteers isn't exhausted.

13. We will be healthy and fulfilled – through living in good housing, with wide opportunities to develop as individuals and communities, through access to services, good quality food, green space and cultural, sporting and leisure activities.

The strategy's overall approach will contribute to the health of Londoners in the long-term by tackling climate change and air quality issues through its many proposals. Other issues of green space, cultural, sporting and leisure activities are not very relevant. However, the strategy does manage to pursue the goal of sustainable energy within the context of maintaining Londoners' current quality of life. This message is important and positive. It is possible to continue to benefit from the many facilities London has to offer and improve our approach to energy use at the same time.

As mentioned under objective 6, sustainable energy has the potential to provide all energy services needs, including heat and warmth, to all Londoners' homes. This is central to ensuring good housing and good health for Londoners.

The strategy could take advantage of the opportunities that the Culture strategy at the GLA has to offer, more innovative ways to make major cultural events in the city less energy intensive and perhaps to spearhead events with a multipurpose goal – promoting London's diverse culture and promoting sustainable energy and the new green economy.

Appendix 1

London Sustainable Development Commission Draft London Sustainable Development Framework October 2002

Vision for London

London has retained its position as one of the World's great cities over many centuries because of the quantity, quality and diversity of its people, businesses, infrastructure and natural resources. However, the downside of this pre-eminence has been the associated social division, pollution and increasingly wasteful use of resources.

Our vision for the 'World Class' London of the future is a place where all Londoners and visitors feel the greatest possible sense of physical, emotional, intellectual and spiritual well-being. Our thinking and decision-making will be long-term, meeting the needs of the present without compromising the ability of future generations to meet their own needs. This means ensuring that the ways in which we live, work and play will not interfere with nature's inherent ability to sustain life.

We will achieve this by taking responsibility for the regional and global impacts of city life. With our commitment to inclusion and cooperation, we will build upon and celebrate London's diversity, in all its forms. Resources will be used efficiently and fairly and the natural and built environment protected. Our reward will be a prosperous, vibrant and healthy city, one in which we all make the most of opportunities for fulfillment.

All of us have a part to play in achieving this vision. Each step will be supported by clear objectives and targets and will be sustained by learning from success.

Objectives

Overall objective:

We will achieve environmental, social and economic development simultaneously; the improvement of one will not be to the detriment of another. Where trade offs between competing objectives are unavoidable, these will be transparent and minimised.

Taking responsibility

1. As citizens of a world city, we will be aware of the impact of our actions on the rest of the UK and beyond, and will take a responsible world leadership role which contributes to the planet's sustainability.
2. All of us - individuals, households, businesses, local and regional government, voluntary groups — will have the information, knowledge, motivation and support to help us to take both short and longer-term decisions that will make us and our city more sustainable.

3. We will seek new and creative ways to overcome the constraints of time and money that prevent us from taking effective decisions. We will ensure that a long-term perspective informs these decisions.

4. We will build and sustain a powerful sense of ownership and responsibility for our city, with civic participation as the norm.

Developing respect

5. Our city will have a culture of tolerance, fairness and respect, not only recognising London's diversity as its key strength, but also embracing nature. The right of all London's citizens and communities to pursue fulfilment will be assured, so long as this does not infringe the rights of others.

6. Our city will be a place where everyone feels at ease and is able to enjoy life. All who work, live and play in the city will be able to pursue their objectives in peace, free from the threat of crime, violence or intrusion.

7. Our communities will be dynamic, stable, adaptable, innovative, progressive – creating a city in which conflicts will be resolved as part of a transparent and participatory process.

Conserving resources

8. We will protect and improve the city's natural ecosystems, its biodiversity, its open spaces and its built environment. We will help to protect the wider regional, national and international environments with which London has links.

9. We will limit and deal with our pollution, and use energy and material resources prudently, efficiently and effectively, including re-using and recycling our residual waste.

Getting results

10. We will make consistent economic progress – not necessarily always growth – to enable wider economic, social and environmental objectives to be pursued both in London and beyond. Business transactions in London will be conducted to high ethical standards.

11. All the different parts of our economy will consistently invest in new technologies, new solutions, new plans and new ideas that contribute to achieving social, economic and environmental objectives simultaneously.

12. All forms of work will be recognised and valued. Paid employment will be plentiful.

13. We will be healthy and fulfilled – through living in good housing, with wide opportunities to develop as individuals and communities, through access to services, good quality food, green space and cultural, sporting and leisure activities.

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