

Planning and the Technological Society: discussing the London Plan

Introduction

Urban planning is changing. This is not the result of legislative programmes and policy initiatives. In the UK, we do have a new system of planning being put in place. As a result of the Planning and Compulsory Purchase Act 2004, “spatial planning” is being rolled out across local planning authorities. However, these statutory and procedural changes reflect more profound societal changes that are in progress. This paper examines the contemporary practice of planning in London within the frame of Barry’s analysis of technological society and also Feenberg’s discussion of technology, and argues that this broader framing helps us understand the changing nature of that planning practice. The salience of sustainable development and, in particular, climate change runs through both the changing significance of the technological aspects of society and the shifts – current and expected – within planning practice. Thus the chosen case study for empirically exploring the relationship between governing a technological society and urban planning is the Greater London Authority’s London Plan. In particular, the debates on the sustainable construction and design policies in the Further Amendments to the London Plan are taken as an apposite focal point for the interface between politics and technology.

Planning as governing a technological society

Andrew Barry’s analysis of *Political Machines* puts the technological society at the heart of processes of governance involving relationships between government, politics and technology (2001). He looks at the complex crossovers between political, scientific and technological discourses and the complexity of both technological practices and their relation to government. He sees technology not as a separate realm but rather an integral part of what it means to be human. Technology is, and has always been, part of the make up of social institutions. Thus Barry’s argument is not that we are entering a new phase entitled “the technological society”. Rather he argues that technology is always integral to how society is governed. He is interested in the particular form that this is currently taking and a key part of that current form is the framing of behaviour and decision-making in terms of sustainability. This makes environmental concerns a feature of the way that technological concerns are integrated into governance.

Barry identifies two features of the governance of technology. First, there is the way that the space of government is reconfigured around debates on technology, drawing actors into new and specific networks that range across space and territory but have their own boundaries. He coins the term “technological zone” to describe some of these new spaces of government. Second, he discusses how governance has become concerned with the technical skills, capacities and knowledge of the individual, and particularly of the citizen. He sees citizens as having to develop new abilities as part of governance processes. There are close links here to the Foucauldian ideas of “responsibilisation” as developed by Miller and Rose (1990), whereby citizens are increasingly bearing the onus of delivering on the state’s objectives. However, the

more general idea that skills, capacities and knowledge are central to governing the technological society is also important. This is not an argument about the knowledge economy and how society has to adapt as economic activity increasingly moves into quaternary production. Rather it is about how the development of these capacities becomes increasingly required across governance processes, in all sectors. This can put considerable strains on actors and require the renegotiation of identity for those actors traditionally associated with knowledge and expertise.

Barry draws on the Foucauldian notion of governmentality and this frames the way that he discusses governance. For Foucauldians, governmentality is about society becoming self-governing so that the state can either withdraw or expand in other ways or redefine its social role. Within governmentality, governance is inevitably technological but this does rather beg the question of what is actually meant by technology. Misa (2003, p. 8) points out that etymologically technology is defined as “a body of knowledge about the useful arts”, a definition that leads to “the complex, messy, collective, problem-solving activities of actual engineers and scientists” and a ready identification of technology with specific machines. However, technology studies have reacted against this reliance on technological objects to define the concept and instead moved to a view of technology as a societal feature; so Misa sees the contemporary use of the term as a “twin sense of a complex of industrial systems and a dynamic force bringing about social change” (op. cit. p. 11). This emphasis on change is helpful and will be returned to below, but there still seems to be a gulf between the specific machine and broader societal change which needs to be filled for the purposes of empirical work.

Barry’s use of Foucault is again helpful here. The whole notion of what constitutes knowledge is central to the Foucauldian project and, therefore, technology can be seen as a way of defining, generating and operationalising knowledge. Foucault used the term technology particularly to apply to governmental technologies that define the object of government. Here he and his followers have emphasised the role that statistics and quantitative activities play in framing what government is about. It has been suggested that they can also play a role in defining identities and promoting self-responsibilisation (see above). Thus one needs to consider not only how the category of knowledge may be involved in shaping identities within a technological society, but more precisely how the form that knowledge takes may shape such identities. Barry particularly emphasises the role that standardisation plays in shaping technological governance; standardisation is a classic form of governmental technology. These are themes that will be returned to in the empirical analysis.

This empirical analysis is undertaken in a policy context, rather than the industrial systems more commonly studied in technology studies. Here Andrew Feenberg’s discussion of technology and modernity can be relevant (2003). Feenberg draws on concepts introduced by Heidegger and his followers to argue for a dialectical perspective on how technological change occurs. He identifies “deworlding” as a process by which “objects are stripped of their inherent potentialities and reduced to mere raw materials” (2003, p. 930) and sees this as an inherent feature of technology. When combined with further processes termed “disclosure” then reframing makes new worlds possible; disclosures “open us to new or different perspectives and reorganise our practices around a different sense of what is real and important” (p. 93-4). In this way change is propelled forwards.

Disclosure can take a number of forms: *articulations* “refocus a community on its core values and practices”; *cross-appropriations* “weave together values and practices from diverse domains of social life in new patterns that alter the structure of our world” and *reconfiguration* is “the process by which a marginal practice is transformed into a dominant one” (ibid). While Feenberg developed his instrumentalization theory to understand how technological and social change interact, his ideas have resonance in a policy context, particularly from a technological society perspective. Generating new policies around technologies can be seen as a form of disclosure in which policy discussions reframe the role of technology within society and identify new possibilities.

How do these analyses relate to the domain of urban planning? Barry sees planning as a general process, an activity that can take place in public and private sectors. Here we are more specifically concerned with the realm of urban planning. The history of urban planning is closely tied up with technology; Misa refers to Lewis Mumford – author of *The Culture of Cities* (1940) – as one of the founding fathers of technology studies (2003, p. 8) However, there are four reasons to see Barry and Feenberg’s ideas as particularly germane to urban planning as it is developing today.

Firstly, the climate change agenda has brought a new range of technological issues within the remit of planning. The planning system has always dealt with technological issues and indeed can be considered inherently technological in that it has sought to engage with the systems that shape the materiality of the built environment. Thus, examples of the kind of technological issue that planning has grappled with include the role of the various infrastructure systems, the dynamics of regional economies, and the modelling of traffic flows. It has also dealt with the details of the machines that are buildings and other elements of built form, although there has been a divide between planning and building control (this is discussed further below). So the argument is not that the planning system has moved into a new stage in which technological issues are to the fore in a way they never have been before, any more than Barry argues that we are now living in a technological society which is distinct from previous types of society. Rather the argument is that the nature of these technological issues have changed with the prioritisation of the climate change agenda within planning.

A key example of this is the proliferation of the Merton Rule. Devised by a planner in the London Borough of Merton, this is a policy to be adopted within development control¹, requiring that a percentage (usually 10% although higher in some cases) of the energy needs of a building or development be met by on-site renewable energy generation. The rule was devised to encourage developers routinely to incorporate renewable energy infrastructure into their proposals. As well as leading to growth in renewables infrastructure on the ground, this would promote capacity-building within the renewables sector leading to economies of scale and cost reductions in due course. The Merton Rule has been adopted by a number of other local planning authorities; over 170 at a recent count. There is a dedicated website at www.themertonrule.org.uk

¹ Development control is the process by which planning applications are considered by a local authority for grant of permission to develop; such development control has to have regard to policies set out in development plans.

and the contribution of the Rule has been recognised by an award from the Royal Town Planning Institute.

The significance of an initiative such as the Merton Rule is that it brings a range of new technological questions and their answers within the remit of planning. The planner and/or planning committee deciding on whether an application for development complies with the Merton Rule will have to consider questions such as:

- What is the energy consumption baseline for the development?
- What is the likely energy savings due to using a more fuel-efficient Combined Heat and Power plant?
- If renewable energy sources are installed, what is the likely amount of energy that will be generated in the form of either thermal energy or electricity?

An energy statement accompanying the application may offer some answers to such questions but to be effective, the planning system needs the capacity to assess the quality and indeed the veracity of such answers. This is particularly important as the potential for making changes to the development and its management after planning and construction stages have been completed is extremely limited.

The Energy Statements that accompany some planning applications are just one example of how the information base for development control has increased substantially. This information base is the second reason why the engagement of planning with technological issues has changed. A conservative list of supplementary documentation that planners might be required to consider, assess and draw conclusions from include: design; access; daylighting, noise, biodiversity, landscaping, travel, energy, and sustainability. Drawn up by consultants, the level of technical detail in such documentation has increased considerably over the past decade. Thus in quantity and quality terms, the information coming forward to the planning system is requiring a different form of engagement with technological material.

This change has put a greater emphasis on the role of statutory consultees, as repositories of specialist expertise, to mediate between the planners and this information. However, the expertise that these bodies offer is limited in kind by their specific statutory remit and often produced under severe time and resource constraints. Furthermore, there is a difference between commentary offered by an external body to the processes of planning decision making and those decision making processes being able to internalise such commentary and engage fully with it.

Turning to the third contextual change, the enhancement of the information base within planning is related to the broader changes within public policy associated with the requirement to be “evidence-based” (Davoudi, 2006). Under the spatial planning reforms of the PCA 2004, Development Plan Documents within Local Development Frameworks are tested against their use of appropriate evidence. Some such Documents have been rejected because their policies were not linked to and justified by such an evidence base (Baker Associates et al., 2007).

Of course, an emphasis on evidence need not imply a greater engagement between politics and technology. Evidence is just a form in which information is presented and need not have any particular content. It is the rhetorical use that is made of the information that constructs it as “evidence”. However, it is notable that the kind of

evidence that is being accorded credence within the spatial planning system is heavily weighted towards statistical analysis and data presentation, i.e. of a quantitative kind.

Finally, a fairly recent change has been the alteration in the relationship between the planning and building control systems. Traditionally, what were seen as the more technical aspects concerning new development were left to building control to determine through the Building Regulations, while development control looked at the overall balances of impacts of the development in the light of planning policy and guidance. Building and development control are separate organisational departments requiring different professional expertise and often there has been little interchange. While central government continues to adhere to the idea that there is a clear separation between development and building control (see CLG, 2007), this division has actually become muddled in practice.

The *Building a Greener Future* policy initiative set out the policy goal that all new housebuilding should be zero-carbon by 2016 (CLG, 2007). An equivalent goal for non-domestic buildings has been set for 2019. In the case of residential development, it has been announced that this goal would be reached by progressive improvements to the Building Regulations. But at the same time, a Code for Sustainable Homes has been produced which ranks new dwellings by a six-star system, with 6* being zero-carbon (CLG, 2006). The Code is supposed to link into local planning policies, supplementing or even replacing local Supplementary Planning Guidance and informal guidance on sustainable construction and design where housebuilding is concerned.

The links or separation between the Building Regulations, the Codes for Sustainable Homes (and the forthcoming version for non-domestic buildings) and any local guidance is unclear. As a result, matters relating to energy and water efficiency that were previously matters of compliance with the Building Regulations are now edging into discussions as to whether a development complies with local planning policy. Thus the boundaries of the technological issues that the planning system is dealing with have shifted, with consequent strains for those engaged with planning decision making.

As a result of these changes, urban planning is now centrally involved in governing our technological society in a new way. This will be explored in more detail through the case study of the London Plan and, in particular, the amendments concerning sustainability and new developments that were discussed at an Examination in Public in June 2007.

The London Plan case study

The London Plan (GLA, 2004) is the spatial development strategy (or strategic planning document) prepared by the Mayor of London, who heads up the Greater London Authority (GLA). The GLA was established in 2000, filling a 14-year interregnum during which London did not have a strategic planning authority. The Greater London Council had been abolished with effect from 1986 and the 32 London Boroughs together with the Corporation of the City of London were the local planning authorities, having to cooperate (or not) on matters of pan-London significance. Since

2000 the Mayor and the GLA have developed a suite of strategies to fill the policy gap that existed².

While the list of such strategies – both statutory and non-statutory – has steadily expanded, the spatial development strategy has always been particularly significant. It is the only strategy that has to be exposed to public scrutiny through an Examination in Public; for other strategies, the public scrutiny comes through the work of the London Assembly, 25 elected local politicians. Second, the London Plan is the only GLA strategy that carries with it regulatory powers of implementation. The GLA is, by and large, not a functional body with a significant service delivery role, unlike most other local authorities. It oversees the work of four functional bodies undertaking delivery³ although these also each have a board to direct their activities. Thus implementation of the GLA strategies can be problematic.

In the case of the London Plan, however, there are two routes to implementation. The local plans of the lower tier of London government have, by law, to comply with the GLA's spatial development strategy. And, particularly important, the Mayor has some planning powers. Until 6th April 2008, these powers were limited to directing the refusal of planning permission for major or strategic developments. Under the Greater London Authority Act 2007 these powers have been extended to the direction of approval also. This means that for the larger developments within London, the GLA is the development control as well as the strategic planning authority.

The London Plan, as with any planning document, seeks to balance a number of demands including those for economic growth, additional housing development and sustainability concerns. However, from the start it incorporated a requirement to promote sustainable construction and design within its policies, backing this up with detailed Supplementary Planning Guidance (2006). The Energy Strategy also included a policy that followed the Merton Rule in requiring 10% of energy needs to be met by on-site renewables (2004), a policy which the GLA sought to implement through their development control powers.

The first version of the London Plan has undergone two sets of alterations; this analysis concerns the second series of detailed amendments, which *inter alia* embedded the climate change agenda more fully into the Plan. In effect, these alternations (known as the Further Alterations to the London Plan or FALP) comprised a substantial re-edit of the plan to change the wording in many places and revise policies in detail. In particular, they sought to put an energy hierarchy (see Figure 1) at the heart of guidance on development control and to adopt an upgraded version of the Merton Rule, which required strategic developments to deliver a 20% reduction in CO2 emissions (not energy use) by the generation of on-site renewable energy. The Examination in Public (EIP) into the FALP took place in June 2007, with a preceding seminar to discuss matters of fact on 10th May 2007. There was also a seminar to explain the procedures of the EIP to potential participants on 19th March 2007. The sustainable energy policies regarding new development were discussed

² This work was undertaken under the Mayoralty of the Ken Livingstone from the Labour Party, who was replaced in May 2008 by Boris Johnson of the Conservative Party.

³ The Metropolitan Policy Authority; the London Fire and Emergency Services Authority; the London Development Agency; and the Transport for London.

were 18th and 19th June, when some 20 people were in attendance (see Figure 2). The discussion at these days of the EIP is the focal point of the following analysis.

The following discussion reports the results of the researcher's attendance at the preliminary seminar and the EIP on 18-19th June, together with interviews with sixteen of the participants on those days and with the Chair of Panel and the accompanying inspector for those days. The researcher was also involved in the steering group for one of the evidence reports presented to the EIP (the Arup report) involving some three meetings during the course of that report's preparation. An interview was also undertaken with the author of the other evidence report presented (the South Bank University report). Relevant paperwork concerning the sustainable energy policies was also examined.

In the following discussion, a number of themes emerge from these analysis of this material which highlights the role of the planning system within the current configuration of a technological society. Before exploring these, it is helpful to outline the nature of the organisational arrangements that constitute an EIP in general and at the FALP EIP in particular

Discussion at the Examination in Public of the London Plan

Examinations in Public (EIP) of planning documents were introduced in the 1970s for structure plans, to replace the Public Local Inquiries (PLI) that are still used for less strategic plans and for many planning appeals against refusal of planning permission. PLIs are quasi-legalistic in structure, with the Inspector (and any accompanying advisor(s)) sitting at the front of the room, typically on a podium and each side presenting "proofs of evidence" from various "witnesses", who are then subject to cross-examination. Representation by legal professionals (solicitors or even barristers) is common, for parties than can afford it. While the Inspector retains discretion over how to handle participation, in general it is possible for anyone with a reasonable interest in the planning issue to get a hearing at a PLI.

By contrast, EIPs are supposed to be more informal. Where possible, the room format approximates a round-table setting and the aim is for a discursive engagement between parties, rather than presentation and cross-examination. Nevertheless, the very informality of the EIP approach, means that the actual form of the discussion can vary considerably, depending largely on how the Chair of the Panel of Inspectors decides to chair the proceedings. These participants differ from those at PLIs in one critical respect; there is no right to be heard and participation is by invitation from the Panel.

The participants at the London EIP readily identified these points as both the key advantage and disadvantage of the EIP format. Many interviewees referred to the enhanced accessibility and the ease of participation. It provided a chance to interact in an informal setting and was described as "non-adversarial". The round-table format was also praised for enabling people to hear each other's viewpoint. The main perceived disadvantage was that there was no right to be heard. The process of selecting participants was not always felt to be transparent. While some participants thought the representation around the table was satisfactory, several argued that certain groups were either over-represented (the GLA "family"; London Boroughs;

developers; renewable energy interests) or under-represented (voluntary sector; fuel poverty lobby; green space sector; low energy developers; developers generally; London Boroughs). Perspectives on this issue clearly reflected the participants' own situation and interests. However, four interviewees mentioned the absence of the voluntary sector and three the heavy presence of mainstream development/property interests.

The participants had come with very different expectations of how the discussion would proceed. While for the Panel there was a clear requirement to get feedback on the wording of the policies and suggestions for alternative wordings, few of those interviewed seemed to understand this as a primary purpose of the EIP. Many interviewees were expecting much more of a debate within an open forum, in which all views could be aired and differences recognised. This was seen as part of establishing the legitimacy of the plan. Indeed the Chair of the Panel explicitly called for a debate at the outset of the EIP; yet there was some considerable frustration amongst those interviewed with how the EIP actually progressed. One interviewee felt they had been "part of a circus" and talked of a box labelled "democracy" being ticked just by holding the EIP.

The problems of achieving open debate within the EIP can be summarised as concerning the number of participants, the nature of the contributions and the form of the chairing. In terms of numbers of participants, the Chair of the Panel himself, in his opening, said that he felt that there were too many present for a good debate, a point echoed by several interviewees. In terms of nature of contributions by participants, there was quite a lot of critical discussion among interviewees and the Panel. The general view was that there too many set pieces, "soap box speeches". The considerable pressure of time led to the reading of quite full statements because participants could not be sure of being allowed to come back on a point. This inhibited the flow of exchanges that could constitute a debate.

The chairing of the session was seen as key. On the climate change days, there was a strong emphasis on allowing participants to have their say. Participants referred to the need for the discussion to open "a can of worms" before debate could ensue. But it was felt by many that the open format meant that strongly held views became opposed and entrenched, rather than leading to any resolution. Some pointed out that it was rarely possible to come back on a point, and that it seemed to be an advantage to go later in the order of speakers, so that points raised earlier on could be commented on and, if deemed necessary, rebuffed. The "can of worms" remained just that. Anything else would require the EIP to go beyond a simple airing of views; it would require a different form of chairing to handle oppositional views and conflicts. Another potential form of chairing involves more active interrogation of the participants by the Panel, moving away from debate among participants. This inquisitorial potential was seen as potentially giving the EIP more focus and advancing discussion. It was reportedly used more extensively on other days of the EIP.

A related issue that concerned some participants was the order in which they are able to speak. The general approach on the days attended was for the Chair to open up a specific issue and ask someone to address this issue; this followed a pre-circulated list of key questions. Following the initial address, the discussion was opened up to the participants. When the Chair brought this discussion to a close, the GLA were asked

to wrap up. One participant liked this procedure but it raised a number of concerns for others. One interviewee felt that the GLA did not always transparently conclude on what others had said. But more importantly, a number felt that this closed the debate down and that their views were being judged and filtered by the GLA. The ordering seemed to reduce the prospect of other participants' views being taken on board and one interviewee thought it unlikely that the discussion would change the GLA's mind (or anyone else's). The process left some unclear as to what the GLA or the Inspector would be eventually concluding on the impact of the discussion.

This is partly a result of the specific position of the London Plan (as compared to other Regional Spatial Strategies, say) since the Inspector's report can only recommend certain changes to the GLA but the final say remains with the Authority (subject to them making clear why they are not taking on board an Inspector's recommendations). However, as a procedure, several participants would have preferred the GLA or Inspector to open, followed by a debate, with the Panel then closing with a summary of where the debate had got to.

Having set the scene with this more general account of the discussion at the FALP EIP, attention now turns to the specific themes that emerge concerning planning in a technological society.

The Role Of Evidence

The current emphasis on evidence-based policy has been highlighted as one reason why technology is achieving a new kind of emphasis within planning processes. Evidence is a potential form in which knowledge can be constructed. How it becomes constructed in specific circumstances is a matter for empirical research. With regard to the FALP, there was a posited division between the preliminary seminar, which was supposed to set out and clarify matters of fact, and the EIP itself, whose remit was to debate policy and not address such matters of fact. Seven of the interviewees had attended the preliminary seminar and all declared it useful. But for many, the material covered at the seminar was well-known and they saw the seminar as primarily informing the Panel rather than anyone else.

A similar separation between evidence and policy was posited through the concept of "evidence-led policy" itself and the practice of the GLA submitting two distinct documents as part of the evidence base for the renewable energy policies. These documents were a study undertaken by Arup specifically to support the FALP policies (Arup, 2007), and a study by South Bank University, which used the energy statements submitted with planning applications going to the Mayor to evaluate a Merton Rule policy (Day et al., 2007).

However, the EIP participants did not find the notion of evidence-led policy convincing in the case of the FALP. Rather it was seen as "post-hoc justification" of policy, with the posited linkage between evidence and policy being reversed. Even where the GLA was commended for taking the time and effort to support policies with research, a disconnect between policy and research was still identified. This is reinforced by the timing of the two reports. The Arup report was commissioned after the policies were established specifically for the EIP and not the actual plan-making process; similarly the South Bank University report was only just ready in time for the

EIP. In support of the GLA position, it was acknowledged by some that the issue of renewable energy was a new one for the planning system and therefore the evidence base was difficult to establish. It was also clear that the status of evidence was affected by the nature of the FALP as an amendment of an existing plan. Both the policies and, by implication, the evidence was changing incrementally and this made the line between the two even finer. One participant considered the urgency of the climate change agenda in any case meant that we no longer had the “luxury” of getting the evidence right before making policy.

But beyond these points about how the evidence-base was regarded, there were also contested views about what constituted ‘evidence’. One participant mused “what is evidence?” and said that most opinion had some grounding in evidence. The representative of the Westminster Property Owners’ Association said at the EIP: “how much is actually proved is debateable”. Another participant emphasised the importance of “experience-based evidence”. A lot of emphasis was put on case studies showing that high levels of renewable energy provision were possible and yet such case studies were not seen as conclusive, in the way that economic costings would have been. This particularly affected the discussion of the Arup report.

The interviewees were divided on the merit of this document. Some considered professional, well researched, in-depth and helpful. It was seen as comprehensive, pulling together a lot of evidence and providing relevant case studies. The conclusions were described as interesting and, indeed, one recommendation on a possible Carbon Fund was discussed at the EIP and subsequently. It was also seen as a useful way of engaging stakeholders, largely through the advisory group convened by Arup, although why evidence required consultation remained unexplained.

However, others saw the Arup report as weak, particularly on the issue of the costs of meeting the 20% on-site renewables target. The case studies were seen as historic and skewed, since several involved subsidies of one sort or another. One participant specifically refuted the idea that a case study could be evidence. The report’s length and complexity was also seen as protecting the report from criticism rather than being a positive quality. Generally, this group saw the preparation of the report as an act of due diligence and the report itself as not contradicting the policies rather than providing a sound evidence base.

The South Bank University report had been read by fewer participants but again views were divided. Some considered it valuable, providing an independent evaluation of the operation of the GLA policy on on-site renewables to date. It was described as succinct, interesting and useful. It was particularly valued by some because it focussed on the feasibility of the policies. However, there were two criticisms.

First, there were some doubts about how the conclusions had been interpreted (even by those who thought the report was valuable). The statistics in the report showed that a quarter of the applications sampled were achieving more than 10% energy savings. These conclusions were, however, seen as capable of supporting the idea that the Merton Rule was already a stretch target, compared to the GLA line that the new 20% target was achievable. Terms such as “cherry picking” and manipulation were mentioned in relation to the conclusions, mainly by those who disagreed with them.

Second, there was general agreement (including by the author of the report) that the database for the analysis was weak. Energy Statements do not give data on actual energy use and there was no possibility of verifying the energy baseline calculation or confirming the consistency of the carbon equivalents used. Not all planning applications provided such a statement and as a result the sample was also quite limited.

Thus evidence was a focal point of discussion at the EIP but in the view of participants remained a highly contested term, both in terms of the quality of the evidence presented and whether it could be constructed as evidence at all. Questions about the detail of the evidence reports and the impact it should have on policy discussions were hotly debated among these participants. Since these are in effect debates on knowledge, this reinforces the technological nature of planning.

The Contestation Of Expertise

The participants to an EIP are generally there on the basis of their interests, or the interests they represent; contemporary policy parlance describe them as stakeholders. This is a strong theme within both planning practice and theory. Ideas of the planning system as mediating between actors (Healey et al., 1988) or of giving voice to actors and enabling them to negotiate compromises and even consensus (Healey, 2006) are the dominant theorisations of planning. What was notable about the EIP into the London Plan was that, while many around the table were there as representatives of interests, there was an emphasis placed on the expertise that was being brought to the table and some participants were explicitly framed as experts.

This related to a view held by some that the EIP should focus on the delivery and impact of the policies and ensuring that these policies were “reasonable”. The emphasis on delivery meant that some interviewees considered the EIP should be a debate among peers, rather than a more open debate. Not everyone round the table could have equal legitimacy in addressing the issue of deliverability. Prioritising this aspect of the London Plan put more emphasis on the experience of some participants, i.e. those who were delivery agents. It further framed their experience as relevant expertise.

This can be developed by considering the main story lines that were in evidence during the EIP discussion over these two days. A story line is a concept explored and applied by Marten Hajer in his study of acid rain politics (1995). He argues that political discourse can be understood in terms of inter-relating story lines, each embodying certain rhetorical tropes but above all involving a distinctive causal analysis of change. These storylines circulate among discourse coalitions of actors, reinforcing the power of coalition members where a storyline is repeatedly used by numerous actors.

At the London Plan EIP there were three broad storylines in evidence. The first can be termed the “Celebratory Merton Rule success story”; the second is the pragmatic “In the real world...” storyline and is in explicit opposition to the first. The third is the “No-one really understand the technical details” storyline. Each brings with it a particular notion of expertise and where it resides. For the Merton Rule storyline, expertise is found among planning practitioners and others involved in promoting the

Merton Rule, while within the pragmatic “real world” storyline, it was the development community who were self-presenting themselves as experts by virtue of their everyday experience of urban development. The “technical details” storyline was one that explicitly excluded most other participants because they were not able to understand the technicalities being discussed. This third discourse will be discussed further in the next section but the dynamics of interchanges between the Merton Rule and “real world” storylines deserves a little more consideration here.

The enhancement of the Merton Rule within the FALP itself rested on the idea, forcefully expressed at the EIP as well as in the supporting reports, that the Merton Rule was a success story. This had a number of elements. The Merton Rule worked as a policy; it could be used as a basis for decision making. Planners were able to operationalise the Rule. It had a clarity and simplicity that often makes for a long-lived policy, as Martin Elson has argued with regard to the green belt (1986). Furthermore, the Merton Rule was successful because it resulted in investment in on-site renewable energy infrastructure and, by definition, such investment was expanding the market and supply capacity for renewables. A subsidiary feature – in that it was asserted but not explicitly supported – was the argument that energy consumption fell as a result of such investment and, by implication, as a result of the policy. This point was not proved because of problems of data collection and post-development monitoring. That it is a debatable point is borne out by the substantial literature on the factors that influence actual energy consumption beyond merely the building fabric and its technological features (Guy and Shove, 2000).

Countering this was the development industry’s storyline that argued against the enhanced Merton Rule on the basis that it was uneconomic and even technologically impossible. Issues of the costs of renewables investment, the viability of energy generation via renewables and CHP and the practicalities of using photovoltaics, for example, on tall office buildings were all raised. Rather than offering knowledge on these points, the argumentation either identified gaps in knowledge or baldly stated that such investment was not possible/feasible/viable. The developers cast themselves as experts in delivery whose word could not be challenged. Different representatives of the development industry repeated this form of rhetoric, reinforcing each other in classic discourse coalition mode.

However, in the case of the EIP into the FALP, there was a participant who straddled the divide between the development industry and the GLA, in the form of the London Development Agency. The LDA presented evidence on the achievability of the GLA’s targets through their completed and ongoing developments. In post-EIP interviews, several participants queried this claim, arguing that the LDA had only been able to achieve this on the basis of their position as a public sector developer operating with subsidies, either from grants or reduced land costs. This may or may not be correct, but in terms of the discussion at the EIP it was clear that this rebuttal of the developers’ pragmatic storyline in support of the Merton Rule storyline was a significant moment resting on competing claims to relevant technological expertise.

A Focus On Technical Details

Reference has been made above to the circulation of a third storyline based on perceived inadequacies in the understanding of technical details concerning energy

generation and distribution. It was a distinctive feature of the discussion at the EIP that a number of such technical details were raised. These technicalities touched on:

- The carbon efficiency of Combined Heat and Power and, particularly, Combined Cooling Heat and Power;
- The conversion factors that should be used to calculate the carbon emissions associated with different fuels and technologies, with reference to a debate on this within the journal *Building Services Journal* (Irwin, 2007; Thonger, 2007));
- The carbon emissions associated with the use of biomass, factoring in transportation of the biomass to the site;
- The basis for calculating the CO₂ reductions for a development and whether this should be the elements covered by Part L of the Buildings Regulations (i.e. energy involved in the installed elements) or all the energy used within the building (including appliances);
- The impact on the viability of on-site renewables and CHP of increased thermal energy efficiency measures in the building fabric (bearing in mind that increased thermal energy efficiency would reduce the overall energy load);
- The impact of scale in general on the viability of renewables and CHP and the implications for the size of development sites; and
- The differences between meeting the requirements of the national Code for Sustainable Homes and the FALP policies.

Some participants were in favour of such a discussion occurring at the EIP since it made the differences between parties clearer; by implication, it was felt that it helped identify the scope for commonalities also to emerge. It was argued that it was good to have the differences aired publicly and the EIP was the right locus for such an airing. It was seen as helping to test out the policies in detail and to link the policies to the practicalities of implementing them. Some felt that the technical discussion also actively promoted learning both among participants and the Panel.

However, others thought that the technical disputes were not helpful to the broader discussion. They were not resolved during the debate and therefore it was difficult to see what the Panel could deduce from the discussion. There was also a difficulty in keeping the discussion strategic (as was appropriate to the London Plan) while discussing these technical matters. Non-experts found it difficult to engage in the discussion so that it reduced active participation to a few key people. In effect the cross-section of interests that the participants represented was reduced to a small group of peers in this expertise. And as a discussion among peers, it was seen as lacking: the level of debate was too low and it came too late in the proceedings. One interviewee commented that some misleading statements were made.

These differences of view reflect the point that this kind of issue – incorporating innovative renewables technology in new developments – is a new departure for the planning system. But further, these issues are new departures for many developers, at least in the UK. This is clearly a case of socio-technical change occurring as we move towards buildings with a lower carbon footprint. The discussion at the EIP reflects the attempt by a mix of different actors to engage with this change within a specific policy arena. And for the planning system and for planners, this is a challenging new departure, stretching the boundaries of what has traditionally been considered planning expertise.

Policy discussion as disclosure

Feenberg's ideas provide an interesting avenue to explore in trying to pin down the role of such discussions within the planning system at a time of socio-technical change. They can provide an account of how policy development around sustainability issues is driving change forward. In the case of sustainability policy, deworlding can be seen as reducing sustainability technologies to their component parts or to "black boxes". Taking the specific case of sustainable buildings, this could be a piece of kit such as a CHP plant or smart metering or photovoltaic cells. Decontextualising such technologies removes it from contact with the human beings who put them in place, use them and maintain them, even though it is these people, in conjunction with the technologies, who ultimately generate the energy use and carbon emissions associated with such technology.

However, having deworlded such technologies, there is scope for reincorporating within general policies broadly applicable across different contexts. Students of socio-technological studies may complain that policies such as the Merton Rule, by making a generality applicable in all contexts, are ignoring the contextual factors that will shape energy use in each specific development, building and site. This is to miss the point. Deworlding is a necessary precursor, according to Feenberg, to allow new and alternative futures to be envisaged within such policies. The Merton Rule is, according to this line of argumentation, more important as a general vision of how change may occur than as a sure way of delivering a given reduction in energy consumption and carbon emissions.

The work of building this alternative future within policy statements can be analysed using Feenberg's categories of disclosure. In the case of sustainable building design, articulation is about political leadership on sustainability in general and sustainable construction and design in particular. It further involves reinforcing the sense of a sustainable building community insofar as one exist. This was clearly at work within the GLA at the time of the FALP EIP, through work on the London Plan itself, on the Supplementary Planning Guidance (SPG) and via the group of actors that were brought together in a number of forums to discuss these policy initiatives. The GLA felt itself keenly as a leader on sustainable construction and design and was unwilling to relinquish this role; hence the upgrading of the Merton Rule to 20% and the emphasis on their own SPG rather than central government's Code for Sustainable Homes.

However, the GLA recognised that additional expertise had to be brought inside the sustainable construction and design community. Hence cross-appropriation was involved in building or extending the community organised around sustainable buildings, enrolling new members from a variety of locations; there are affinities here with Wenger's idea of a community of practice (1998). Finally, still following Feenberg's terminology, reconfiguration was involved throughout, in seeking to make building sustainably a mainstream rather than a marginal activity. This was the overt purpose of the FALP, as repeatedly stated at the EIP by the GLA and others supporting their policy stance and their reframing of possible worlds. The technology of sustainable building played a key role in such reframing.

The future of planning for sustainable construction

This discussion highlights that the planning system is facing new challenges in which the nature of its engagement with technology is a driving force. The climate change agenda and the specific *Building a Greener Future* initiative, set in the context of the drive towards evidence-based policy and the enhanced information base for planning decision making are all also implicated. The analysis of the discussion at the EIP into the latest alterations to the London Plan has shown how the discussions within the planning system are constituting this change. It has examined the contested concept of evidence, shown the emphasis on the expertise that actors brought to the discussion and identified the considerable attention to technical details concerning the employment of new technologies within developments and buildings. Feenberg's framework helpfully suggests that such discussions are all part of the deworlding and then disclosure that enables socio-technical change to occur through reframing possible future worlds, in this case a sustainable and zero-carbon built environment. What conclusions can be drawn from this analysis for the future of planning where sustainable construction is concerned? It suggests a number of potential shifts.

First, on an organisational and also institutional level, it would seem that the division between building control and development control is being renegotiated. This is not just a matter of organisational boundaries within local authorities and Department of Communities and Local Government. It is also institutional in that it affects the norms, cultures and routine practices of the professions that constitute these activities. The seeds of such change are already seen in the confusion that is occurring around the boundaries between the Building Regulations, the Code for Sustainable Homes and the operation of the Merton Rule. This is amplified by questions over where the onus for implementation should lie, as well as how monitoring and enforcement should occur. There are vested professional interests at stake in such boundary disputes.

Second, there appears to be an ongoing search for a unit to act both as a standard and a common metric within discussions between actors from different domains. Carbon is currently emerging as the chief contender for such a metric. This suggests that there will be a growth in carbon footprinting of activities and goods as an input into decision making. Of course, such footprinting is not a neutral process; it involves assumptions and norms. Standards rest upon foundations of standardisation. Hence we can expect growth in the institutionalisation of carbon measurement with the emergence of carbon professionals. This has potential political implications as the establishment of such a profession and such a standard could be part of the basis on which carbon trading is extended and even personal carbon allowances instituted.

Third, these new areas of technical discussion will create considerable tensions within the planning system, as they have done in the past (e.g. over road building debates). These tensions circulate around issues of whose voice should count and - an integrally related issue - what form discussion should take. In the London Plan this was seen at play in terms of who should engage in discussion over the more technical aspects, how this related to the involvement of actors who wanted a broader discussion and how the debates on such issues could be resolved within a planning forum. At the heart of this issue is the ability of the planning system to resolve the demands of different claims to engagement and, particular, how to balance knowledge claims with and against, say, moral, democratic or aesthetic claims (Rydin, 2007).

Finally, this raises questions about the how the identity of planners as professionals and experts may emerge from this period, where existing bases of expertise are open to renegotiation. Such questions include: What do planners need to know? How is their expertise to be framed professionally? How will this relate to the public personal of the planner? If planning expertise is to be renegotiated, then this implies a process of learning. In turn, this raises the broader issue of how planners learn in response to these changing situations (Rydin et al., 2007). Pressure is already being placed on educational establishments to deliver a new form of training and intellectual output, but significant learning can also take place within the context of professional planning practice. Wenger's concept of communities of practice highlights the way that "learning by doing" occurs and the reshaping of professional identity that occurs as a result (1998).

This analysis has, therefore, suggested an agenda for future research on urban planning, concentrating on changing institutional forms, new common metrics, emerging tensions around expertise in planning discussions and changing professional identities, with learning within planning practice centrally implicated. The sustainability agenda has already wrought considerable change in planning policy and legislation. The changing nature of planning discussion and expertise are likely to be as profound a consequence of this agenda and, as such, deserve careful attention.

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Figure 1 The GLA Energy Hierarchy

1. **Use less energy**, in particular by adopting sustainable design and construction measures (Policy 4A.2)
2. **Supply energy efficiently**, in particular by prioritising decentralised generation through (Policy 4A.5i):
 - connection to existing CCHP/CHP networks,
 - renewable-powered site-wide CCHP/CHP,
 - gas-fired CCHP/CHP or hydrogen with renewables;
 - renewable-powered communal heating/cooling; and lastly
 - gas-fired communal heating/cooling
3. **Use renewable energy** (Policy 4A.7)

Figure 2 EIP Participants on 18-19th June 2007

Public Organisations	Commercial Bodies	Non-Governmental Organisations
Mayor of London	Thames Water Property Services	Friends of the Earth London
London Assembly	EDF Energy Network Ltd.	London 21
London Climate Change Agency	Housebuilders Federation	London Forum of Amenity and Civil Societies
London Councils (2)	Bellway Homes	Royal Society for the Protection of Birds
Government Office for London	British Property Federation	Town and Country Planning Association
Environment Agency	Westminster Property Owners Association	Transport 2000
	London First	
	Combined Heat & Power Association	
	Fulcrum Consulting	