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# Performing accountability: Making environmental credentials visible in housing design

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## HIGHLIGHTS

- Accountability practices shape environmental sustainability practices and outcomes.
- Making sustainability 'visible' involves the use of sustainable technologies.
- Policy should consider how it affects professionals work and energy provision.
- Visibility practices influence energy provision and potential consumption.

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## ABSTRACT

Making housing developments 'environmentally sustainable' requires housing developers to be accountable for their 'green' credentials. Accountability is promoted by both the UK government's environmental policy for housing design – the Code for Sustainable Homes – and local councils in their planning criteria. These accountability practices are key to how relationships between housing professionals and local planning authorities influence practices and outcomes of environmental sustainability. In this article, we examine how accountability is performed in housing design and development. We argue that accountability practices involve the management of making environmental sustainability visible through demonstrating the utilization of sustainable technologies. We contend that these 'visibility' practices are carried out to the detriment of an appreciation of how energy is both provided and consumed. We contend that using the installation phase of sustainable technologies as a point of adequate assessment of the environmental effectiveness of a building is short-sighted. Policy needs to look beyond this, and consult with professionals who develop and sell houses to understand better their working priorities and contexts that shape the provision of renewable energy in the planning phase and post-build.



## 1. Introduction

Practices of accountability are pervasive in planning initiatives to increase the environmental sustainability of new housing developments. It is our premise that accountability practices are central to how housing professionals and local planning authorities shape environmental sustainability. In this article, we discuss the politics of making environmental sustainability visible and its impact on energy provision. By examining the ways in which housing professionals account for their use of sustainable technologies, we argue that the 'management of visibility' is key to demonstrating compliance with policy. In housing development accountability is promoted by both the UK government's environmental policy for housing design – the Code for Sustainable Homes – and local councils in their planning criteria for environmental sustainability. For developers, the choice to install visible technologies is part of a creative strategy to accumulate enough points to meet the Code's criteria and the local council's target for planning permission. How developers deal with these sustainability criteria reveal the politics that underpin how local planning authorities and housing professionals together shape environmental accountability in a bid to comply, win building contracts, and demonstrate their sustainability credentials. For example, housing associations, in collaboration with building contractors, are required to submit bids that outline their proposals to meet energy requirements to local authorities to gain permission for developments.

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In 2006 the UK's Department of Communities and Local Government (DCLG) launched an environmental standard called the 'Code for Sustainable Homes' (referred to as the 'Code' hereafter), which was introduced to inform the design and development of new housing: [it] 'offers a tool for home builders to demonstrate the sustainability performance of their homes, and to differentiate themselves from their competitors' (DCLG, 2006a: 5; our emphasis). Promoted to developers as a means to single-out their properties in competitive housing markets, the Code is positioned as a way to demonstrate, and make accountable developers' actions during a build. Its implementation is assessed according to the performance of the whole building using a points-based system by measuring 'the sustainability of a home against design categories rating the "whole home" as a design package' (DCLG 2006a: 4). This enables developers to 'off-set' one aspect of the building with another to gain accreditation (Raman and Shove, 2000). The need to prove compliance with the Code is tied to the commercial ambitions and priorities of developers to design, build, and sell homes, and the environmental requirements set out by local planning authorities concerning design and construction. It is this negotiated relationship between professional practices and policy requirements that we focus on in this article.

We conducted our study in collaboration with one of southern England's largest housing associations. Our research was informed by 20 in-depth interviews with housing professionals. These professionals came from a variety of backgrounds such as: architects, development officers, and sustainability consultants. All interviewees were involved in designing, constructing, and managing social housing schemes developed under the directive of the Code, and worked on schemes that had one of the following technologies installed: solar hot water heating panels, photovoltaic (PV) cells, or biomass Combined Heat and Power (CHP) technology. Because our study focused on the practices of professionals working for a housing association in southern England, it is not representative of the whole of the United Kingdom. Our work therefore serves as a basis for further research.

## 2. Performing accountability

Accountability practices are so pervasive that they constitute everyday activities (Neyland and Woolgar, 2002: 262), becoming a principle of social organization (Strathern, 2000: 281). This is no less so for housing development where accountability shapes the activities and technologies that comprise building design. Understanding how accountability is carried out in this context is important, given that the materiality of the building, and the technologies contained therein, influence practices of energy provision and potential consumption (Shaw and Ozaki, 2013).

Accountability practices originally emanated from financial accounting in the form of audits. It is seen as a way of internalizing governance and is concerned with the effectiveness of regulatory initiatives to ensure compliance with rules (Power, 1997: 41). 'Public inspection', 'rendering visible', and 'measures of performance' are practices associated with auditing that migrated from finance to the public and private sectors (Shore and Wright, 2000: 59). Notions of accountability also go hand in hand with moral and ethical connotations, such as value for money, efficiency, and transparency emerged with the rise of auditing (ibid.: 60). Positioned to encourage 'best practice', auditing is framed as fostering and maintaining professionalism (Neyland and Woolgar, 2002: 261). It is also associated with the value of widening access through transparency, making auditing increasingly difficult to criticize (Strathern, 2000: 3).

We define accountability as a process that demands of professionals an ability to be able to *reflexively describe and make visible their actions* to their assessors in a form that is persuasive (Strathern, 2000; see also Hinchcliffe et al. (2007)). Visibility practices are central to the accountability process: they are practices that make evident housing professionals' actions. For example, in housing design, these descriptions exist as planning documents that visually describe the form of a proposed building, trying to be convincing of environmental credentials. Indeed, visibility is contingent on maintaining 'proper' performances in the sense of doing the right thing by 'officially accredited values of society' (Goffman, 1990: 45, quoted in Goldsmith (2010): 916). The appearance of these performances can be achieved by making positive acts visible (ibid.), but also by concealing negative instances; and this is 'managed transparency' (Zyglidopoulos and Fleming, 2011: 702).

It is crucial to understand how visible representations of the Code (e.g. sustainable technologies) are managed as part of accountability practices so that they are recognizable as 'observable and reportable phenomena' (Button and Sharrock, 1998: 74). It is to this task that we now turn.

## 3. The Code: gaining and accumulating points

The Code is a voluntary assessment method that enables the rating of new build homes in terms of its design and construction with regards to environmental sustainability. Although originally introduced in England, it is intended as a 'single national standard to guide industry' to tackle environmental sustainability issues such as the environmental impacts of activities that contribute to increased levels of carbon dioxide from domestic arenas (DCLG, 2006a: 4; DCLG, 2006b) and it is widely applied in the UK. Indeed, the UK government has recently announced the gradual discontinuation of the Code, but has integrated many of its measures into the Building Regulations. The Code offers an assessment framework that is recognized within the house building industry as 'the' framework to inform the design of new buildings in order to gain local government environmental approval, grant subsidy, and planning permission, for example.

The Code's target is to make all new built homes 'zero carbon' (zero net emissions of carbon dioxide from all energy use) by 2016, with a 44 percent improvement in energy and carbon performance by 2013, compared to the 2006 Building Regulations (Part L). Pressure to comply with the Code is more significant in the social housing sector than in the private sector (McManus et al., 2010) because housing developments require Code certification as part of the conditions set by the funding agency in order to qualify for grant subsidy. Furthermore, local authorities, in England in particular, use the Code as planning requirements and often set a minimum Code level in planning conditions for future builds. The installation of technologies deemed sustainable, such as photovoltaic cells and/or A+ rated white goods (e.g. refrigerator–freezer, washing machine), is one recommendation made by the Code. The use of these technologies, for example, results in building developments being awarded points, contributing to the level of environmental sustainability accredited.

As mentioned earlier, the implementation of the Code by house builders is assessed according to the performance of the whole building using a points-based system that measures the sustainability of a home against design categories and rates the 'whole home' as a design package (DCLG, 2006a: 4). The Code is structured into nine design categories with points attributed to each depending on the performance level attained (see Table 1). The category 'energy/carbon dioxide' subsumes 21.4 percent of potential points available to developers (ibid.).

There are many ways in which housing professionals seek to accumulate enough points to reach the levels required of them by