Framing and Mapping Building Governance Barriers to Energy Upgrades in Flats

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Abstract

It is important for climate change mitigation and to address fuel poverty that multi-owned properties (MoPs) containing flats are refurbished with energy and carbon saving technologies ('energy upgrades'). This article explains how the ownership and management ('governance') arrangements of MoPs can limit or inhibit energy upgrades. A building governance framework is adopted to examine the energy efficiency gap in MoPs through two lenses: an organisational lens that focuses on complex decision-making, and a 'law and technology' lens that explores the role of title deeds. Although the problem is particularly acute in England and Wales, where flats are sold on a leasehold basis, there is a broader issue whenever there is co-ownership of buildings containing apartments, and policy measures designed to improve energy efficiency in homes must pay particular attention to the complexity created by governance arrangements.

Key words: energy efficiency, flats, governance barriers, law, energy improvements, leases

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1. Introduction

This article explains the challenges to carrying out energy and carbon saving improvements to buildings with privately owned flats in them, which we refer to generically as multi-owned properties (MoPs).

Given that around 80 per cent of the UK's homes that will be inhabited in 2050 are already built[1] and more than a fifth of the UK's carbon emissions are attributable to residential buildings,[2] upgrading the existing housing stock has to be a focus of carbon reduction policies. The European Union Energy Efficiency Plan (the EE Plan) acknowledges that the greatest energy saving potential lies in the refurbishment of existing buildings. This will require making sustainable energy improvements ('energy upgrades'), such as the installation of energy efficiency measures (e.g. insulation, double glazing, or efficient heating systems), renewable energy systems (e.g. solar photovoltaic panels or ground source heat pumps), new energy control mechanisms (e.g. smart meters and central heating programmers) and, sometimes, district and communal heating. These types of adaptations are needed to move towards the UK government's commitment to achieve an 80% cut in carbon emissions by 2050.[3] In addition to the decarbonisation gains, energy upgrades will produce other benefits: reduced levels of fuel poverty by generating energy bills savings, and healthier homes.

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[1] Brenda Boardman, *Home Truths: A Low-Carbon Strategy to reduce UK Housing Emissions by 80% by 2050* (University of Oxford, Environmental Change Institute 2007) 6.

[2] Department of Energy and Climate Change, *Energy Consumption in the UK* (Ref: 15D/377, 2015) Chapter 3.

[3] Compared to 1990 baseline; Climate Change Act 2008, s 1.

The EE Plan notes, however, that overall refurbishment rates remain low and a range of barriers to energy-efficient buildings need to be overcome, including legal obstacles.[4] Recent policy measures designed to improve energy efficiency in homes, reduce carbon emissions and alleviate fuel poverty have had higher uptake in single dwelling houses than in blocks of flats.

Biggart and Lutzenhiser refer to the 'very large social problem that can variously be described as energy inefficiency in the built environment'.[5] In energy research this problem in buildings is usually seen in terms of the wider 'energy efficiency gap' or 'energy paradox' - the gap 'between potential cost-effective energy efficiency measures and measures actually implemented'.[6] Understanding why buildings are nowhere near as energy efficient as they could be, and need to be, is a complex but urgent task and yet within energy research 'the built environment is poorly theorized and understudied in the social sciences'.[7] This is especially so with MoPs which, even though they comprise a significant, and growing, proportion of housing, have been largely overlooked by energy researchers.

This paper adopts a 'building governance' framework, explained in Part 2, to

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[4] European Commission, *Energy Efficiency Plan 2011* (2011) 8 < https://ec.europa.eu/clima/policies/strategies/2050/docs/efficiency_plan_en.pdf> accessed 8 November 2016.

[5] Nicole W Biggart and Loren Lutzenhiser, 'Economic Sociology and the Social Problem of Energy Inefficiency' (2007) 50(8) American Behavioral Scientist 1070, 1075.

[6] Patrik Thollander, Jenny Palm, Patrik Rohdin, 'Categorizing Barriers to Energy Efficiency: An Interdisciplinary Perspective' in Jenny Palm (ed), *Energy Efficiency* (Intech 2010) 49.

[7] Biggart and Lutzenhiser (n 5) 1073.

examine the ‘energy efficiency gap’ in MoPs. A flat is typically a self-contained unit within a horizontally divided larger building, and the flat-owner will be given rights of access and support etc in relation to the ‘common’ (or shared) parts of the building. This dimension - of ‘owning part within a whole’ - creates both technical and legal complexity as well as a mutual dependency between flat owners. Things are even more complicated if the building is mixed tenure, with rented flats or commercial units added into the mix. As flats in England and Wales are sold using leases, these title documents are key to understanding the governance arrangements for MoPs, but leases are complex, non-standardised and under-researched. Our building governance framework looks at the problem through two lenses: firstly, from the perspective of the lease and associated documents as a technology which in itself shapes energy related outcomes in the social and material world of MoPs;[8] and secondly, from an organisational perspective, focusing on the complexity of decision making arising from ownership of ‘a part within a whole’ and typical lease terms. To do this we bring together doctrinal law, socio-legal understandings, empirical insights, housing, and energy policy as part of the deepening of ‘connections with other environmental disciplines’ suggested by Little.[9]

Part 3 of the paper provides background information on how flats are situated

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[8] Caroline Hunter similarly explores how the technology of the lease comes interacts with the implementation of government policy: see Caroline Hunter, ‘Solar Panels, Homeowners and Leases: The Lease as a Socio-Legal Object’ in David Cowan and Daniel Wincott (eds) Exploring the ‘Legal’ in Scio-Legal Studies (Palgrave Macmillan 2015).

[9] Gavin Little, ‘Developing environmental law scholarship: going beyond the legal space’ (2016) 36 Legal Studies 48, 49.

within the housing stock, and the ownership models used for selling flats (3.1), the policies and programmes that the government has put in place to promote energy upgrades in the housing stock, and how – and why - these have impacted differently on flats as compared to houses (3.2, 3.3).

Looking at the lease as a technology, Part 4 shows how the governance tools (the lease and associated documents) enable, shape and constitute both the physical form of the block of flats and also the social relations within it. Part 5 then explains how the building governance framework creates multiple – and serious - barriers to decision making for energy upgrades in flats. Part 6 concludes with some reflections on next steps in addressing this issue.

This article focuses on the situation in England and Wales, but in any apartment block, in any jurisdiction, there is a tension between private autonomy and individualism on the one hand, and collective and co-operative decision-making on the other. In England and Wales, however, the governance barriers are particularly acute because of the absence of any standardisation in lease wording and the fact that leasehold is not a system designed to place control in the hands of the unit owners. Poorly constructed law and governance practices can even inhibit action against the wishes of all concerned parties. This does not to have to be case: in other jurisdictions, mandatory governance arrangements can ensure apartment owners consider and plan for energy upgrades over the long term as collective owners of the building.[10]

[10] K Matschoss et al, 'Energy renovations of EU multifamily buildings: do current policies target the real problems?' in *eceee Summer Study proceedings* (2013) 1485.

2. Energy Research and Building Governance

Writing more than 20 years ago, Lutzenhiser identified 3 stages of basic energy research that were needed, but, within the context of residential blocks of flats, energy research has not yet met the challenge of the initial exploratory stage 'in which social, technical, building and consumption patterns are examined and mapped'.[11] It is said that energy research is dominated by 'physical, technical and economic models (PTEM) of rational energy use'[12] yet, although there *are* technical challenges with refurbishment of blocks of flats, a social science perspective is necessary to investigate why refurbishment rates are low and to explain that people don't always act in rational economic ways. In recent years growing attention has been given to behavioural dimensions in energy research to explain the barriers and drivers for individuals and groups to make decisions in line, or not, with the PTE models. However, Shove has argued that the tendency to frame the problem as one of individual behavior and personal responsibility focused around the lexicon of ABC (attitude, behavior and choice) does not contain within it the terms and concepts required to discuss or debate significant societal transformation, and deflects attention away from, for example, the way that institutions structure decisions.[13] This restricted

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[11] Loren Lutzenhiser, 'Social and Behavioral Aspects of Energy Use' (1993) 19 Annu. Rev. Energy Environ. 247, 279.

[12] Kathryn B Janda, Charlie Wilson, Mithra Moezzi, Francoise Bartiaux, 'Improving efficiency in buildings' in Paul Ekins, Mike Bradshaw and Jim Watson (ed), *Global Energy: Issues, Potentials, and Policy Implications* (OUP 2015) 164 and Lutzenhiser, ibid, 248.

[13] Elizabeth Shove, 'Beyond the ABC: climate change policy and theories of social change' (2010) 42 Environment and Planning A 1273.

model of social science, she argues, produces a critical blind spot. The individual decision-maker is only one actor amongst a complex set of actors (human and non-human) that determine energy related outcomes in the social and material world.

Energy researchers have begun in recent years to engage with the challenges involved with energy upgrades in more complex, shared use, buildings. The LEAF project, which aimed to refurbish 24 apartment blocks in six European countries, explored the governance, ownership and management arrangements for energy efficiency retrofit.[14] Based on a literature review and expert interviews, Matschoss et al. gives an overview of how decision-making is structured in apartment buildings in nine European countries (excluding England), with a more detailed discussion of three countries.[15] Neither focuses on the technology of law.

In the context of reducing energy use in tenanted commercial properties, Axon et al have developed a 'building communities' framework that sees buildings and stakeholders as communities.[16] They argue that to understand how communities using that space behave it is necessary, inter alia, to understand both how corporate bodies

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[14] Low Energy Apartment Futures, *Improving the energy efficiency of apartment blocks LEAF Final Report* (2016) <http://www.lowenergyapartments.eu/wp-content/uploads/2016/03/LEAF_Final_Report_D1.1_Mar16.pdf> accessed 6 June 2016.

[15] Kaisa Matschoss et al., "Energy renovations of EU multifamily buildings: do current policies target the real problems?" in *Rethink, renew, restart. Proceedings of the eceee 2013 Summer Study* (2013).

[16] Colin J Axon, Sue J Bright, Tim J Dixon, Katy B Janda and Maria Kolokotroni, 'Building communities: reducing energy use in tenanted commercial property' (2012) 40 *Building Research and Information* 461.

behave but also to consider how legal arrangements can impact on energy performance.[17] In the MoP context, the collection of title deeds, ownership structures and management practices will shape how the communities using that space behave and make decisions in relation to energy outcomes.

Our building governance framework therefore focuses on two lenses that are central to understanding the behaviour of buildings as communities: the legal and property aspects that represent the way in which the technology of law 'acts' upon the building and its community through leases and associated documents; and organisational perspectives that acknowledge the role and interaction of human actors - the community of owners, users and managers – and non-human actors (the technology of law) in making decisions in relation to energy issues. In the context of energy upgrades in residential MoPs, the building governance framework requires an understanding of how flats are owned, whether improvements are permitted under the title deeds and by regulation, and how the various stakeholders or decision makers are organised and involved in decisions.

Understanding the building governance framework is essential to consider how the problem we identify might be addressed. The concept of 'barriers' to rational energy efficient behaviours under the PTE models remains dominant in energy and energy efficiency policy making;[18] our organisational lens allows us to identify how

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[17] Ibid 464.

[18] See, for example, Article 19 of the Energy Efficiency Directive which refers to addressing 'barriers' to energy efficiency relating to the split of incentives 'between the owner and the tenant of a building or among owners.'

specific governance arrangements can act as barriers to energy efficient behaviours by the co-owners of MoPs. We can thereby can most effectively identify and promote short term policy changes that begin to address the problem[19]. At the same time, a view of the lease as a technology allows consideration of how larger-scale transformation in the meaning and practice of property ownership and management – to which the document of the lease is central - might be required to deliver major improvements in the energy performance of MOPs.

Before explaining how governance arrangements in blocks of flats may contribute to the problem of poor energy performance, it is necessary to provide some background in relation to blocks of flats and home energy efficiency policy.

3. Background

3.1 Ownership and Flats

In England, 21% of existing homes and 42% of new builds are flats,[20] with the

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[19] The authors have direct experience of this in having successfully engaged government departments in considering how possible reforms to leasehold law – relatively minor in property law terms - might make it much easier for freeholders and leaseholders to install energy upgrades (see Part 5.1 below).

[20] Department for Communities and Local Government, *English Housing Survey 2013: PROFILE OF ENGLISH HOUSING 2013* (2015) [1.4] <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/445370/EHS_Profile_of_English_housing_2013.pdf> accessed 16 July 2016.

highest concentration in urban areas.[21] The Department for Communities and Local Government (DCLG) estimates that in 2012-13 there were 2.8 million flats owned on leases for more than 20 years.[22] Although most flats are in a purpose-built block, some will be in houses converted into flats. Blocks also come in all shapes and sizes, although most[23] are low-rise (3 storeys or less).

Given growing urban density, MoPs are an increasingly common form of providing housing throughout the developed world, and the legal structures used to enable the sale of flats as individual units within MoPs are varied. So, for example, strata title is used in Australia and Singapore, condominium in Canada, and sectional title in South Africa. These are all illustrations of what Lujanen refers to as 'dualistic systems' in which there is joint ownership of the land and of the common parts of the building (usually through an incorporated entity) and individual ownership of the

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[21] In London 49% of homes are flats, compared to 17% in the South West region: Department for Communities and Local Government, *English Housing Survey, 2013: Housing Stock Data* [computer file], UK Data Archive (2015) <http://dx.doi.org/10.5255/UKDA-SN-7802-1>. In this article, many of the statistics used have been gathered by the authors' research using Housing Survey data.

[22] Department for Communities and Local Government, Residential leasehold dwellings in England, Technical Paper (2014) [6] <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/342628/Residential_Leasehold_dwellings_in_England.pdf> accessed 22 July 2016. There is no reliable and detailed data on leasehold flats, as official housing statistics do not distinguish between freehold and leasehold ownership. Most divisions are between dwelling type (house, flat, bungalow) or 'owner-occupied' and 'rental'. Leasehold can occur with any of these.

[23] ibid. 71% of blocks of flats are low rise.

apartment unit.[24] Lujanen also refers to a different legal structure, which he terms a 'unitary system', which is used in some countries, such as Austria, The Netherlands, Norway, and Switzerland. In a unitary system 'the apartment owner is regarded as a co-owner of the whole building and land, with exclusive rights of permanent occupation to a particular apartment in the building.'[25] With both dualistic and unitary systems the persons with interests in the individual units also collectively co-own the building.

By contrast, in England and Wales there is often no co-ownership of the building. Flats are sold by the 'freehold'[26] owner on a long leasehold basis, with typical leases being for any of 99, 125, or 999 years.[27] This long lease is both a detailed contractual document that sets out the rights and responsibilities of the parties, and also an 'estate in the land'[28] (a property right) which must be registered with HM Land Registry. The freeholder owns the building and is therefore also the landlord of the flat leases, but the freeholder does not necessarily live in the building or have a lease of

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[24] Martti Lujanen, 'Legal challenges in ensuring regular maintenance and repairs of owner-occupied apartment blocks' (2010) 2 International Journal of Law in the Built Environment 178.

[25] ibid 179.

[26] In England, there is no 'ownership' of land as in civil law systems. The best title to land is an estate known as 'freehold'.

[27] An alternative to leasehold - commonhold - was introduced by the Commonhold and Leasehold Reform Act 2002 (CLRA 2002) but it has failed to take root: Lu Xu, 'Commonhold developments in practice' in Warren Barr (ed), *Moderns Studies in Property Law – Volume 8* (Hart Publishing 2015) 331. There are attempts to revive it: for example, 'Bring in commonhold by 2020, says MP Jim Fitzpatrick' (*Carlex* 25 November 2015) <http://www.carlex.org.uk/bring-back-commonhold-by-2020-says-mp-jim-fitzpatrick/> accessed 16 July 2016.

[28] Law of Property Act 1925, s 1.

any of the flats. The leaseholders who own long leases of flats may live in the flat themselves (as owner-occupiers) or may in turn rent them out (and thus leaseholders may also be landlords). There will sometimes also be a management company as a party to the lease, which is given responsibility for managing the building and recovering the costs of doing so from the leaseholders via a service charge.

This leasehold system is neither a dualistic or unitary system. Sometimes the freeholder may choose not to retain the ‘freehold reversion’ but will transfer it to a resident owned management company (and this resembles a dualistic system). In a traditional, private sector arrangement, the freeholder of the block may be a private individual or company. The leases to the individual flats are mostly owned by private individuals, some of whom occupy the flat themselves and some of whom rent it out to short-term tenants. In the social housing sector, a slightly different situation is common: the flats in a block are mostly rented out directly to social tenants. However, many local authority flats that were initially rented to tenants have since been sold on long leases under the right to buy (RTB). Some of the RTB leaseholders have subsequently rented them out on the private rental market. This means that many blocks owned by social housing providers contain a mix of direct rental tenants (social housing tenancies), long RTB leaseholder owner-occupiers, and private rental tenants on short tenancies in RTB leasehold flats. When the local authority wishes to upgrade its housing stock for its own renters it will have to engage with the RTB leaseholders.

3.2 Home Energy Efficiency: The Policy Context

The UK Government promotes energy upgrades in existing homes in order to

reduce carbon emissions, lower energy bills and to alleviate fuel poverty.[29] The Committee on Climate Change identifies additional insulation, high efficiency electric heating and district heating as key components to UK's strategy to decarbonise homes.[30] Similar measures are required to reduce fuel poverty: the Fuel Poverty Strategy for England[31] commits the government to bringing fuel poor homes to an energy performance standard of band 'C' by 2030,[32] as far as reasonably practicable, by installing energy upgrades.

Other, wider, benefits of home energy upgrades are also increasingly recognised in official assessments, notably improved health outcomes as a result of

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[29] Department of Energy and Climate Change, 'Consultation Stage Impact Assessment for the Private Rented Sector Regulations' (2014) <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/335073/Consultation_Stage_Impact_Assessment_for_the_PRS_Regulations.pdf> accessed 16 July 2016.

[30] Established to advise the government on the cost-effective path to 80% decarbonisation by 2050. Committee on Climate Change, 'Reducing emissions and preparing for climate change: 2015 Progress Report to Parliament – Technical Annex 2: Buildings' (2015) <https://documents.theccc.org.uk/wp-content/uploads/2015/06/Buildings_tech-annexe.pdf> accessed 16 July 2016.

[31] Department of Energy and Climate Change, 'Cutting the cost of keeping warm A fuel poverty strategy for England DECC 2015' 6 <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/408644/cutting_the_cost_of_keeping_warm.pdf> accessed 8 November 2016

[32] Home energy performance is assessed using the official Standard Assessment Procedure (SAP) rating system where 100 is highly energy efficient. Energy Performance Certificates (EPCs) use a simplified banding from A (very efficient) to G (inefficient) based on the SAP rating.

warmer, healthier homes.[33] BRE estimates that for older householders aged 55 years or more the cost to the NHS of excess cold hazards in poor housing is over £440 million annually.[34] There is also growing awareness of overheating risk (with potential links to mortality), particularly for poorly insulated top floor flats.[35]

Several different policies and programmes have been used by the government to promote home energy efficiency. Energy standards on new build homes have been promoted through building regulations since the 1970s. They were standardised in the Building Act 1984, which gave powers to the Secretary of State to regulate for 'the conservation of fuel and power.'[36] Energy improvements to existing homes – the principal concern in this article - have been promoted over the past twenty-five years through building regulations as well as other regulatory measures and also through financial and informational programmes.[37]

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[33] See Joe Payne, David Weatherall and Frances Downey, 'Capturing the "multiple benefits" of energy efficiency in practice: the UK example' in *eceee Summer Study proceedings* (2015) 229.

[34] For first year treatment costs. BRE, 'Briefing Paper, Homes and Ageing in England' (2015) 12 <https://www.bre.co.uk/filelibrary/Briefing%20papers/86749-BRE_briefing-paper-PHE-England-A4-v3.pdf> accessed 16 July 2016.

[35] Stéphanie Vandentorren et al, 'August 2003 heat wave in France: risk factors for death of elderly people living at home' (2006) 16 European Journal of Public Health 583, 584.

[36] Hywel Davies, 'Tracing the continuing development of Part L', Modern Building Services Online (04 July 2013) <http://www.modbs.co.uk/news/fullstory.php/aid/12062/Tracing_the_continuing_development_of_Part_L.html> accessed 16 July 2016.

[37] The early 1990s marked the start of significant policy attention in this area with the establishment of the Energy Saving Trust in 1992, the first major fuel poverty energy efficiency

By far the largest financing programme has been the Supplier Obligations (SO) placed on domestic energy supply companies to fund and promote energy efficiency measures.[38] This was first introduced in 1994 and its current iteration, the Energy Company Obligation (ECO), will run to 2022. Key measures supported under the SO over the past decade have been insulation upgrades: in the year from October 2010, for example, over half a million cavity walls and 687,000 lofts were professionally insulated with funding from the SO.[39] A proportion of SO activity is directed at households at risk of fuel poverty.

Financing is also used to promote renewable energy in homes. For example, the Feed in Tariff scheme (introduced in 2010) incentivises the installation of renewable electricity generation systems in buildings, including homes, through a subsidised payment for each kilowatt hour of clean energy generated.[40]

Regulations have been used to promote minimum standards for energy using

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programme (Home Energy Efficiency Scheme, later Warm Front) in 1991 and the first supplier obligation programme (EESOP) in 1994.

[38] The other significant financing programme to note is the Warm Front taxpayer funded programme which paid for insulation and heating system upgrades for households at risk of fuel poverty and ran from 1991-2013.

[39] Department of Energy and Climate Change, 'Estimates of Home Insulation Levels in Great Britain: January 2012' (March 2012) <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/49408/4537-statistical-release-estimates-of-home-insulation-.pdf> accessed 16 July 2016.

[40] The Renewable Heat incentive (introduced for homes in 2014) works on the same basis, paying for each unit of heat generated from systems such as heat pumps or biomass boilers.

products. Indeed, the single most effective home energy efficiency policy has been the mandatory requirement - since 2005 - to install high-efficiency condensing boilers when replacing central heating boilers.[41] There has also been a rapid increase in the energy efficiency of home appliances and lighting following the introduction of minimum appliance standards for energy efficiency (currently set at European level).[42] Regulations, along with financing, were also used to set minimum insulation standards for properties owned by social housing providers in the Decent Homes Programme which ran from 1997 to 2010.[43]

Informational programmes have included the government's establishment of the Energy Saving Trust (EST) as a source of impartial consumer advice for energy efficiency in 1992 and the funding of an EST national network of local energy advice centres from the early 1990s to 2010.

Taken together, these programmes have led to a significant increase in home energy efficiency. Home energy performance is assessed using the official Standard Assessment Procedure (SAP) rating system where 100 is highly energy efficient, and

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[41] In most domestic situations.

[42] See Department of Energy and Climate Change, 'Energy efficient products - helping us cut energy use' (2014) <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/328083/Energy_efficient_products_-helping_us_to_cut_energy_use_-_publication_version_final.pdf> accessed 16 July 2016.

[43] Committee of Public Accounts, *The Decent Homes Programme: Twenty-first Report of Session* (HC 2009–10, 350).

average SAP ratings have risen from 46 in 2001 to 60 in 2013.[44] However, this is the average and many homes (houses and flats) remain under-insulated. In particular, analysis shows that there is a massive potential for wall insulation to be applied to older, solid (as opposed to cavity) walled properties.[45] This is a costly and disruptive measure and levels of uptake remain very low. Looking further ahead, it is likely that the vast majority of UK homes - even those recent properties built to the higher energy efficiency standards of modern building regulations - will require installation of additional energy efficiency and renewable energy features if the UK is to meet the 2050 target of an 80% reduction in carbon emissions.[46]

3.3 Impact of Energy Efficiency Policies: Flats and Houses[47]

Flats are typically more energy efficient than houses and, overall, fewer flats (16.4%) are in the bottom (E/F/G) energy performance bands than houses (27.6%). With at least one other dwelling above or below them it is harder for heat to escape

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[44] Department for Communities and Local Governance, *English Housing Survey, ENERGY EFFICIENCY OF ENGLISH HOUSING 2013* (2015) 11.

[45] DECC, 'The Energy Efficiency Strategy: The Energy Efficiency Opportunity in the UK, Strategy and Annexes' (2012) 85 <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/65603/6928-the--energy-efficiency-strategy-statistical-strat.pdf> accessed 16 July 2016.

[46] See, for example, Gavin Killip, 'Transforming the UK's Existing Housing Stock' (Environmental Change Institute, University of Oxford 2013) 10.

[47] Unless otherwise stated, all data in this section from DCLG, *English housing survey 2013* (n 19*).*

from flats: they are an inherently more energy efficient built form. Flats are also more modern than houses (55% of flats were built after 1965 compared to 41% of houses) and therefore more likely to have been built to comply with energy standards in building regulations.[48]

These factors - the built form and more modern construction – mean that average energy ratings mask the fact that flats may not be getting as many energy upgrades as single family houses. For example, only 16.9% of energy efficiency measured installed under the ECO from January 2013 to June 2015 were fitted in flats, even though 21% of homes in England and 38% of homes in Scotland are flats.[49] ECO has particularly failed to reach low-income households in private sector flats: only 4.9% of measures installed under the private-sector-only, fuel poverty focused ECO sub-programme, 'Affordable Warmth', were fitted in flats.[50]

The English Housing Survey shows that flats, particularly older private sector

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[48] Even before building regulations provided for energy efficiency, there was technical progress that means more recently-built homes are likely to be more energy efficient: for example, homes built after the 1920s are likely to have been built with cavity walls to keep the homes warmer and free from damp. Filling the cavity with insulation either at or after construction was then a further innovation which became common in the 1980s.

[49] ECO applies to England, Wales and Scotland.

[50] Department of Energy and Climate Change, 'Data tables: Green Deal, ECO and insulation levels, up to June 2015' (2015) Table 1.12a <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/461301/Detailed_GD__ECO_and_insulation_statistics_tables_-_17_Sept_2015_Final.xlsx> accessed 16 July 2016.

flats, are less likely than houses to have been retrofitted with wall or loft insulation or double glazing. This is shown in Table 1 which compares houses with flats for dwellings built before 1980 (before modern building regulations).

Table 1: Insulation and glazing in homes built before 1980

English Housing Survey 2013: Insulation and glazing in homes built before 1980[51]		
	Pre-1980 houses	Pre-1980 flats
No loft insulation (all houses; top-floor flats only)	4.19%	17.62%
No double-glazing (all flats and all houses)	4.27%	14.25%
Uninsulated cavity walls (cavity walled houses and flats only)	33.63%	49.82%

Although older flats comprise 14% of the housing stock they represent 37% of the properties without double-glazing. One in ten (9.73%) top-floor flats (of all ages) have no loft insulation, which will represent a significantly higher risk of overheating in summer and cold in winter. Flats are also much more likely than houses to be heated by electric heating, which is generally a more expensive heating fuel than gas: 25% of flats are electrically heated, compared to 4% of houses.

For some older flats, not built to modern building regulations, this low rate of

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[51] Department for Communities and Local Governance, *English Housing Survey, 2013: Housing Stock Data* [computer file] see n 21.

energy improvements has meant very low levels of overall energy efficiency. This is particularly the case for flats in converted houses ('converted flats'), 85% of which were built before 1919. Converted flats are by far the most likely to be in the bottom (F/G) energy performance bands (16% vs 6% of all homes),[52] and also by far the most likely to pose a health risk to residents because of the property condition.[53] 'Serious excess cold [health] risk' is more than twice as prevalent in these flats as in the rest of the housing stock.[54]

3.4 Explaining the Differential Rates of Refurbishment in Flats and Houses

This paper is concerned with the way building governance practices limit energy upgrades. This does not tell the whole story, however. The lower impact of policies and lower levels of overall energy efficiency retrofit in MOPs and in specific types of MOPs can also be partially attributed to the physical nature of the UK's stock of MoPs. Some flats, particularly Victorian converted flats, are old, and expensive and difficult to insulate. Cavity wall insulation is also more difficult to fit in properties over three stories (some insulating materials slump inside the cavity) and there are safety issues around fitting gas infrastructure in high-rise blocks.

There may also be demographic and informational factors that lead to lower levels of refurbishment in flats. Upfront financing to pay for energy saving measures

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[52] Department for Communities and Local Governance, *English Housing Survey 2013* (n 19).

[53] Department for Communities and Local Governance, *English Housing Survey: ENERGY EFFICIENCY OF ENGLISH HOUSING 2012* (2014) Table 1.1.

[54] Department for Communities and Local Governance, *English Housing Survey 2012: PROFILE OF ENGLISH HOUSING 2012* (2014) Tables 3.3 and 3.9.

(that only pay back over several years) is likely to be more difficult for flat owners who – on average – earn less than house owners.[55] Access to information is more complicated when considering upgrades to a building that is larger and more complex than a single dwelling house.

This article focuses, however, on those barriers to energy upgrades in MoPs that are primarily related to the building governance arrangements. These will be considered through the lenses discussed earlier: the technology of law, and the organisational aspects. Through the lens of the technology of law we see how the ownership models used for the sale of flats and the detailed wording of title deeds (leases) impact on incentives and make it very difficult to install energy upgrades. Through the organisational lens we see *who* is empowered (by the technology of law) to decide to make an energy-related investment (if anyone); and how this acts as a barrier to making building community decisions. First, however, it is necessary to explain *how* the technology of law provides for the ownership and management of blocks of flats.

4. The Technology of the Law

4.1 Ownership Models

Creating a method of selling units within a MoP is complex. Individual unit-

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[55] 35% of households living in flats are in the bottom quintile for income (annual net household income including savings). Department for Communities and Local Governance, *English Housing Survey 2013* (n 20).

owners cannot operate as ‘islands’ as there will be co-dependency for access to the unit, rights of support, and so on. The legal instruments creating the collective and individual rights will, inter alia, contain provisions that, for example i) define the physical extent of individual units (perhaps that they exclude services such as cables and pipes that do not serve that unit exclusively, they include internal but not external walls); ii) prohibit alterations to the individual unit that may impact on the structural or aesthetic integrity of the whole building; and iii) provide for maintenance and servicing of the common parts and the ‘whole’ with a mechanism for recovering the costs from individual unit-holders. In England and Wales there are different routes taken within leases to structure the divisions between collective and individual rights, and how management responsibility is allocated. This section focuses on how ownership is structured. There are three broad approaches to this, which will be described using labels used by Blandy in her more detailed explanation of the legal framework.[56]

4.1.1 Traditional Freehold/leasehold Structure

The ‘traditional’ structure involves the freeholder selling units on long leases whilst retaining the freehold of the common parts and the reversion to the leases. Within this model, the freeholder will be responsible for the repair and maintenance of the building structure and the common parts, and have the ability to recover the costs of doing this through the service charge. As Blandy observes, this leaves the freeholder free to decide ‘on the extent of repairs and maintenance, levels of service

[56] See Sarah Blandy, ‘Legal Frameworks for Multi-Owned Housing in England and Wales: Owners’ Experiences’ in Sarah Blandy, Ann Dupuis and Jennifer Dixon (eds), *Multi-owned Housing: Law, Power and Practice* (Ashgate 2010) 13.

charge, and whether to take on responsibility for the provision of these services or contract them out'.[57] There may also be a residents' association set up, possibly with statutory recognition,[58] which provides a way for leaseholders to present their collective views to the freeholder. It is not, however, uncommon for leaseholders to feel 'powerless' within this relationship,[59] and research stemming from a study for the Department of the Environment found that leaseholders reported 'largely negative experiences and attitudes… rooted in the freedom freeholders have to exercise authority without concern for the wishes of lessees.'[60]

4.1.2 Freehold/Leasehold Structure with Residents' Management Company

Within this structure, the freehold ownership remains as in the traditional model, but leaseholders are made responsible for the management of the MoP through a residents' management company. Typically, each flat owner acquires a share in this company on purchase of the flat but there is another route to leaseholder management, which is through the leaseholders collectively exercising the statutory right to manage (RTM) under the Landlord and Tenant Act 1987. Here the form of the RTM company is prescribed by statute.

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[57] Blandy (n 56) 21.

[58] Landlord and Tenant Act 1985, s 29.

[59] Blandy (n 56) 23.

[60] Ian Cole and David Robinson, 'Owners yet Tenants: The Position of Leaseholders in Flats in England and Wales' (2000) 15 Housing Studies 595, 602.

4.1.3 Residents' Management Companies as Freeholders

This is the only model that is dualistic as the leaseholders collectively, via the residents' management company, not only manage the MoP but also own the freehold, thus being responsible for management but also having full control. Whereas in the first two models the leaseholders have access rights in relation to the common parts owned by others, taking the form of easements,[61] in this model the common parts are under the collective ownership of the leaseholders. This might be described as a kind of commons property, that is, 'resources that are owned or controlled by a finite number of people who manage the resource together and exclude outsiders, what Carole Rose calls "commons on the inside, [private] property on the outside".' [footnotes omitted].[62] Of course, in this type of commons property the 'commons' is effectively there to service or support the individual private property rights of the unit owners.

Again, there are two routes to this end result: either through the developer electing to market the property on this basis or through the leaseholders, at a later date, exercising the statutory right to leasehold enfranchisement under the Leasehold Reform Housing and Urban Development Act 1993.

4.2. The Technology of Law: the Locus of Decision-Making Authority

Noting the complexity of property, Lehavi suggests that property should be

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[61] *Edwards v Kumarasamay* [2015] EWCA Civ 20 [6].

[62] Hanoch Dagan and Michael A Heller, 'The Liberal Commons' (2001) 110 Yale LJ 549, 557.

understood not only by 'the formal rights allocation (chiefly the designation of "ownership"), but also by the question of who is assigned the power to make decisions about the different attributes and components of the resource'.[63] In a detached freehold owner-occupied house, the decision whether or not to make energy efficiency improvements is one that can be made by the owner alone, depending possibly on any planning constraints and building regulations etc. Whether it is worth spending, say, £8000 to replace the windows is a decision for the owner to take, weighing up the financial implications, how long they are likely to stay in the property, the effort of arranging and living through the works, the impact on comfort (warmth and draughts), aesthetics, and the pay-back period. With freehold, owner-occupied homes there is no division between ownership, decision-making power and paying for works and energy – all of these things 'point in the same direction'.[64]

With MoPs it is a much more complex picture. Formal rights are allocated to many parties, and ownership, decision-making power, and responsibility for payment is carved up between freeholders, and flat owners.[65] Where the power to make decisions lies depends on the particular arrangements in relation to the particular block: in traditional blocks, it will be the freeholder alone who has decision-making power, whereas where there is some kind of residents' management company decision-making will be shared, usually amongst company members. The data available in relation to MoPs is poor, as leasehold is not generally treated as a

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[63] Amnon Lehavi, 'Mixing Property' (2008) 38 Seton Hall Law Review 137, 140

[64] ibid 141.

[65] David N Clarke, 'Long Residential Leases: Future Directions' in Susan Bright (ed), *Landlord and Tenant Law. Past, Present and Future* (Hart Publishing 2006) 172.

separate category in most housing statistics. Whichever model is used day-to-day management may be self-managed or undertaken by a professional management agency. The Association of Residential Managing Agents' evidence to an investigation of service charges in London 'estimates that 60 per cent of private leasehold flats are managed by a professional managing agent; the other 40 per cent are self-managed by lessees in over 50,000 resident management companies.'[66] In practice, self-management will be most common in smaller blocks, particularly converted flats.

4.3 The Technology of Law: Lease Drafting and how Building Management is Structured

Although leases are typically very long, and highly individualised, documents with no standard wording, some common patterns are found. Under most leasehold schemes, the lease provides that the leaseholder (the unit-owner) is responsible for maintenance of the interior of the flat, and the freeholder or a management company has responsibility for repair and maintenance of the common parts. The cost of common parts maintenance is passed onto the leaseholders through the service charge. There are some checks and balances on the exercise of the freeholder's power, importantly that the leaseholders are able to challenge whether costs have been reasonably incurred and works carried out to a reasonable standard.[67] Whether

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[66] London Assembly Planning and Housing Committee, 'Highly charged: Residential leasehold service charges in London' (Greater London Authority 2012) 6.2.

[67] Landlord and Tenant Act 1985, s 19.

maintenance responsibility falls to the leaseholder or freeholder will depend largely on whether the physical part at issue falls within the flat, as defined by the lease, or is part of the common parts. In relation to work that goes beyond repair and maintenance, the leaseholder is usually restricted from making internal structural alterations without the landlord's consent (but consent must not be unreasonably withheld)[68] and cannot make alterations that extend beyond the fabric of the flat (in practice, this may, for example, make it strictly not possible to install a condensing boiler as this will require venting through an external wall – usually belonging to the landlord).

Leases are often poorly drafted, and seldom in plain English. More than thirty years ago, when the number of flats was considerably lower, the Nugee Committee of Inquiry was set up to collect evidence on the scale of problems 'arising from the management of privately owned blocks of flats…'.[69] It reported that the problem of unsatisfactory leases was a recurrent theme in the evidence provided to the Committee.[70] There were widespread problems with drafting: uncertainty about the extent of obligations; lack of clarity in the lease; gaps, deficiencies and ambiguities in the lease making it difficult or impossible to ensure the proper maintenance or repair of the block; and different types of lease being used for different units within the same the block. Although some legislative changes have since been made in the hope that

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[68] Landlord and Tenant Act 1927, s 19(2). Landlord can recover legal fees for giving consent. Non-structural alterations are commonly permitted without the landlord's consent, but there are lots of variations in leases.

[69] Committee of Inquiry, *Report on the Management of Privately Owned Blocks of Flats* (1985) (The Nugee Report). It estimated over half a million households in privately owned flats [3.5].

[70] ibid sections 5.35 and 7.6.

the worst problems can be addressed through variation of leases,[71] formal variation is costly and complex and there are few applications for variation.[72] The fundamental problem remains: there is still no standardisation of leases and drafting problems remain notorious.

This creates all sorts of problems: for example, an individual leaseholder cannot know what their neighbour's lease says, and anyone advising on retrofit options will need to read all relevant leases as there can be no assumptions about what the lease will say, or that it will make satisfactory provision for management.

This can be illustrated by looking at windows, on the assumption that a unit-owner has single glazed windows and wants to replace them with double-glazing. The first issue is whether the windows are within the demise of the individual unit or belong to the common parts. The authors have looked at a small sample of 6 residential leases. Within this sample there is considerable variation: specimen lease B provides

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[71] The Landlord and Tenant Act 1985 has a mechanism for applying to the First Tier Tribunal (Property Chamber) for variation to individual leases if the lease fails to make satisfactory provision for repair, maintenance, insurance, repair/maintenance of installations, services, recovery of expenditure, computation of service charge (s 35), and for variation to 2 or more leases, where 'the object to be achieved by the variation cannot be satisfactorily achieved unless all the leases are varied to the same effect' (s37). In *Shellpoint Trustees Ltd v Barnett* [2012] UKUT 375 (LC), s 37 was used to permit the replacement of a communal heating and hot water system with individual boilers in each flat. See also *Green v Kemplay-Amow* (2007) LON/00AG/LVL/2007/0004 (LVT); *Ashworth Mansions Ltd v Various lessees of Ashworth Mansions* (2013) LON/00BK/LVT/2013/0001.

[72] There are no specific statistics on this but this is known – anecdotally- to the authors.

that the glass is the leaseholders, but the windows and window frames are the landlords; specimens C and D state that window frames and glass are the leaseholders; specimen E states that the leaseholder has 'the windows glass and window frames' but the landlord has 'the lintels and sills to the windows of the Flat'; and specimen G defines the leaseholder's premises as including 'window frames and glass' but prohibits the leaseholder from replacing the frames of the exterior windows and provides that repair or replacement can be done by the landlord. Often there is ambiguity and it is difficult to work out whether windows are a landlord's or leaseholder's responsibility. In *Sheffield CC v Oliver*, the landlord local authority proposed to replace existing single glazed metal windows with PVC-u double glazed windows at a cost of £4,532.33.[73] The leaseholder objected. At first instance the Leasehold Valuation Tribunal held that the windows were the responsibility of the leaseholder. On appeal, the Lands Tribunal disagreed: the decision turned on the wording of the lease which had been purchased under the 'right to buy' and the landlord's statutory obligation to repair the 'structure and exterior' found within RTB leases.[74] The Lands Tribunal referred to *Irvine v Morgan* in which windows were held to be part of the structure and exterior.[75] The fact that there is no standard answer to the question of who is able to change the windows, coupled with the sometimes ambiguous wording used in the leases and the need to refer to legal precedents to interpret the wording, demonstrates the kind of difficulties that exist when seeking to carry out the very common energy efficiency measure of changing the windows for

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[73] *Sheffield City Council v Hazel St Clare Oliver* [2008] LRX/146/2007 (Land Tr).

[74] Housing Act 1985, Sch 6, para 14(2).

[75] *Irvine v Morgan* [1991] 1 EGLR 261.

double glazing.

5. Organisational Perspectives: How Building Governance Impacts on Energy Upgrades

Having explained how flats are owned and managed, this section considers how this building governance infrastructure impacts practically on the ability to make energy upgrades.

5.1 The Inability to Make ‘Improvements’

It is usually very difficult to make energy efficiency upgrades to MoPs and flats within them. Many of the technical possibilities, such as double glazing, and wall insulation, will require work to be done to the ‘common parts’. However, the freeholder commonly only has responsibility (and thus cost recovery powers) for the ‘repair and maintenance’ of the structure of the block building.[76] Principles of construction guide how lease wording is interpreted but the wording of the particular covenant is always crucial to its meaning:

‘… a decision on the language of one clause is never decisive, and may sometimes not even be helpful, as to the meaning of another clause, even though it uses some of the same words.’[77]

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[76] See for example, Specimen leases B and C both express landlord covenant as being to maintain [‘keep’ in B] in good and substantial repair and condition….

[77] *Welsh v Greenwich LBC* (2001) 33 HLR 40 (CA) [25].

Nonetheless, it is clear that the commonly found reference to repair and maintenance does not allow for 'improvements'[78] or even 'renewal'.[79] It may be that if repair is necessary, some amount of improvement is permitted as part of this. *Minja Properties Ltd v Cussins Property Group plc* involved a commercial lease in which the landlord had responsibility to 'maintain and keep in good and tenantable repair, inter alia, the window frames (excluding glass)'.[80] The steel window frames suffered from corrosion and the landlord wanted to replace them with double-glazed aluminium frames. Two of the tenant occupiers objected as their leases were running out fairly soon and, as they had no intention of staying, they did not want to pay for this. Harman J accepted that repair could involve more than 'patching up' and, in this particular case, as the additional cost caused by the double glazing was 'a very small percentage of the total cost', a 'comparatively trivial amount', it was held to come within the covenant to repair and not amount to renewal. Where Building Regulations require replacement windows to be double glazed (as is now standard), it has been recognised that this will be a necessary part of repair; and so in *Craighead v Homes for Islington* the Upper Tribunal allowed the landlord to recover the cost of replacement of single glazed Crittall windows with modern double glazed Crittall windows, even though this was

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[78] *Pembery v Lamdin* [1940] 2 All ER 434.

[79] 'Repair is restoration by renewal or replacement of subsidiary parts of a whole. Renewal, as distinguished from repair, is reconstruction of the entirety, meaning by the entirety not necessarily the whole, but substantially the whole'. *Lurcott v Wakely and Wheeler* [1911] KB 905 (CA) 924.

[80] [1998] 2 EGLR 52 (Ch).

13% more than a like-for-like replacement.[81] It may therefore be possible to implement some energy efficiency measures when there is a 'repair and maintenance' covenant if the additional cost of the upgrade is trivial in the context of the whole repair or is required under Building Regulations, but this does not allow 'free-standing' upgrades and will only be possible if there is already disrepair (which requires that the property has deteriorated from a former (better) condition).[82]

This particular difficulty has been partially addressed in relation to management of MoPs in Scotland. (Scotland has a separate, long-established system of property law, which is now subject to the devolved competences of the Scottish Parliament and the Scottish Government). Flats in Scotland are owned as freeholds and, if the title deeds do not specify how decisions are made, there is a default statutory management scheme contained in the Tenements (Scotland) Act 2004, Schedule 1. This provides that maintenance is carried out by majority decision, and the definition of maintenance has been amended (by the Climate Change (Scotland) Act 2009) to include the installation of insulation, although (as with a typical lease) other improvements are not allowed unless everyone consents.

In some instances the lease does permit the landlord to carry out improvements, and to recover the costs of doing so from the leaseholder, but this tends to only be the case with some RTB leases and is very unusual for leases in the private sector.[83] Leaseholders may feel quite powerless in this situation. This was

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[81] [2010] UKUT 47 (LC).

[82] *Janet Reger International Ltd v Tiree Ltd* [2006] EWHC 1743 (Ch) [61].

[83] eg *Waaler v London Borough of Hounslow* [2015] UKUT 17 (LC). It is sufficiently unusual to have caused the President of the UT to remark on it in the *Sheffield* case (n 73) at [27].

referred to in *Sheffield CC v Oliver* where the President of the Lands Tribunal remarked (in the atypical situation where the freeholder does have power to carry out improvements), that it was 'somewhat surprising that… under the terms of this 125-year lease, if the council are of opinion that a particular improvement is desirable, they are able to carry out the works of improvement and to charge the lessee for them even though the lessee does not want them carried out.'[84] Notwithstanding the possibility of making improvements in these situations, there may still be difficulty in recovering the costs through the service charge. Statutory provisions in the Landlord and Tenant Act 1985, s 19, provide that costs can only be recovered so far as they are 'reasonably incurred' and it was said in *Waaler v London Borough of Hounslow* that 'where works which go beyond works required to remedy disrepair are carried out, the financial impact [on the leaseholders] of any particular course of action may have relevance to the question of whether costs have been reasonably incurred' and the freeholder should take account of the leaseholders views.[85]

Two examples of how governance arrangements in flats limit the impact of energy efficiency policies can be seen by considering the Energy Act 2011. This Act introduced wholly new elements to UK energy efficiency policy: the Green Deal (Part 1, Chapter 1) as a new way of financing energy saving measures, and minimum

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[84] *Sheffield City Council* (n 72) [27].

[85] *Waaler* (n 83) [56] and [42]. See also *Fluor Daniel Properties Limited v Shortlands Investments Limited* [2001] 2 E.G.L.R. 103, which concerned whether the landlord was entitled to recover the costs of replacing an air conditioning system from tenants whose leases were shortly to expire and Blackburne J commented that 'the works – ie the standard to be adopted – must be such as the tenants, given the length of their leases, could fairly be expected to pay for'.

energy efficiency standards (MEES) regulations for the private rented sector (Part 1, Chapter 2).

The Green Deal

The Green Deal was launched in 2013 and was designed to tackle the upfront financing barrier to energy efficiency in UK homes by allowing households to pay the costs of energy upgrades over the long term on their electricity bill. It was hoped this would kick-start the market for solid wall insulation and address the 'split incentive' problem in the rented sector (of landlords paying for energy upgrades from which tenants benefit – explored in 5.2 below). But the Green Deal did not work: from its launch in 2013 to cancellation in 2015 only 14,000 homes were improved using this finance (compared to 1.4m homes improved through the SO in the same period).[86] To access Green Deal financing, households had to go through a Green Deal assessment. Only 12% of Green Deal assessments[87] were delivered in flats (data on uptake of actual Green Deal finance does not identify house type). The National Housing Federation identified the governance-related problems for the Green Deal in flats before the scheme started:

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[86] National Audit Office, 'Report by the Comptroller and Auditor General: Green Deal and Energy Company Obligation' (2016) <https://www.nao.org.uk/wp-content/uploads/2016/04/Green-Deal-and-Energy-Company-Obligation.pdf> accessed 16 July 2016. The reasons for the Green Deal's failure have been much debated. This NAO report provides the official account of what went wrong.

[87] DECC (n 50) Table 1.2

‘We are very concerned that… the consents issue could prevent the majority of intended Green Deal work on blocks of flats. Without a suitable mechanism for dealing with this the result will be that individual tenants/leaseholders will have a veto to stop improvements that can greatly benefit, and are supported by, the majority …

…small numbers of leaseholders may be able to stop work on a whole block.’[88]

Minimum Energy Efficiency Regulations for the Private Rented Sector

The 2011 Energy Act also led to the MEES Regulations.[89] These require landlords (from April 2016) not to unreasonably refuse requests for energy efficiency improvements from rental tenants, and will also prohibit new rentals of energy inefficient flats (with an EPC rating below ‘E’) from 2018. In introducing the MEES Regulations, the government gave thought to the governance issues for flats. If the tenant is renting from a leaseholder, the leaseholder can ask the freeholder for consent for improvements, and the design of the Regulations is that neither the freeholder nor leaseholder-landlord can unreasonably refuse consent. In practice, however, the terms of standard leases (in prohibiting improvements) may still prevent works going ahead.[90] As it stands, the governance issue is likely to be a profound problem: 40% of

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[88] National Housing Federation, ‘Response to the Green Deal and Energy Company Obligation consultation’ (2012) 26 <http://s3-eu-west-1.amazonaws.com/pub.housing.org.uk/Green%20Deal%20and%20ECO-%20Federation%20detailed%20response%2018Jan2012.pdf> accessed 17 July 2016.

[89] Energy Efficiency (Private Rented Property) (England and Wales) Regulations 2015 SI 2015/962.

[90] Susan Bright, ‘The Private Rented Sector Energy Efficiency Regulations (Domestic): A

privately rented F&G banded homes are flats,[91] virtually all with different lease provisions.

It is possible to imagine ways to enable action to be taken to upgrade blocks without fundamental reform of English property law. There could be a statutory right – independent of the lease - for leaseholders and/or freeholders to improve the energy efficiency or buildings in which they have an interest.[92] Another suggestion is for a term to be implied into leases that would enable the freeholder of a building (who is already allowed under the terms of the existing lease to recover the costs of repair and maintenance) to undertake and recover the costs of 'qualifying energy efficiency improvements' from the leaseholder.[93] This would not address the incentive issues (discussed next) but would at least enable action if the freeholder is motivated to make improvements and able to forward fund the work.

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consideration of impact in leasehold flats' (February 2016) <http://futureclimate.org.uk/wp-content/uploads/2016/07/practical-app-of-MEES-to-domestic-Website.pdf> accessed 17 July 2016.

[91] DCLG, *English Housing Survey 2013* (n 20).

[92] Oxford University, TLT Solicitors & Future Climate, 'Briefing note for all-party round table meeting on leasehold issues' (2015) <https://www.law.ox.ac.uk/sites/files/oxlaw/briefing_note_-_leasehold_issues_appg.pdf> accessed 23 July 2016. This would also help with the incentive problems, discussed next.

[93] Working with the Association for the Conservation of Energy, the authors have been involved in drafting and promoting a parliamentary bill to imply such a term into leases. See Mark Routley and Susan Bright, 'Leasehold Reform (Energy Efficiency) Bill: energy efficient flats' (2016) <https://www.law.ox.ac.uk/futureproofing-flats/reports> accessed 19 July 2016.

5.2 The Impact of Ownership Models on Incentives

The problem of the split-incentive has been extensively discussed in energy literature in the context of rental properties. The standard conception of the split-incentive problem is based on tenants paying market rents for the property and paying the energy bills, with the landlord having responsibility for any upgrade work. In the rental context, the incentive for undertaking upgrades is therefore 'split': the tenant gets the benefit of energy savings, and the landlord (in theory) gets the benefit of any increase in capital value and income. However, because tenants don't have the knowledge to value fully the energy savings, market rents are not sensitive to energy efficiency. Qualitative research with landlords undertaken by the Energy Saving Trust in 2010 confirmed that (with the exception of double glazing) landlords consider that tenants do not know to value energy efficiency-related features.[94] Further, housing survey data shows that the private rented sector in England does indeed see lower levels of investment in energy efficient retrofit than other tenures.[95] However, the effect of the split incentive is hard to separate from broader housing market problems which lead to poor housing quality in the UK's private rented sector: 'high demand and low

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[94] Energy Saving Trust, Trigger points: a convenient truth Promoting energy efficiency in the home (2010) < <http://www.energysavingtrust.org.uk/sites/default/files/reports/EST_Trigger_Points_report.pdf> accessed 8 November 2016.

[95] Looking at homes built before 1980, 12% of PRS homes have no double glazing compared to 6% of all homes; 60% (of houses and top floor flats) in the PRS have below 150mm of loft insulation compared to 46% of all houses and top floor flats. English Housing Survey 2013, see n 20 above.

supply leave consumers in a weak position, combined with a lack of regulatory intervention.'[96]

In privately owned flats the incentives picture is much more complex than the standard landlord/tenant split incentive issue for rental properties. The only situation in which the freeholder can simply get on with energy upgrades is where *both* the traditional freeholder-leaseholder model is used *and* the lease wording permits improvement works to be done with the costs being recoverable through the service charge. In practice, this is only likely to be the case with some local authority blocks that contain a mix of rented and privately owned flats (as in *Sheffield CC v Oliver* mentioned earlier),[97] and the local authority freeholder may wish to improve the condition of the block in order to to improve the condition of its rented housing, perhaps in order to help to alleviate fuel poverty and improve comfort for its tenants.

In other models, even ignoring the difficulty that leases do not provide for improvements to be made, incentives may not align with decision-making power. Where there is a private (non-occupying) freeholder with decision-making power, there is usually *no incentive* for the freeholder to make improvements: the freeholder is unlikely to gain financially.[98] It is the leaseholders who stand to benefit from any

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[96] Aimee Ambrose, 'Improving energy efficiency in private rented housing: what makes landlords act?' (2015) Indoor and Built Environment 913, 914.

[97] *Sheffield City Council* (n 73).

[98] The value of the freeholder's reversionary interest is – in most cases – unlikely to substantially change following energy improvements. And, as mentioned above, ground rents will not

upgrades (whether the measure is energy savings or comfort) yet they have no power or ability to do work to the common parts: this is the split incentive misalignment problem.[99] There may be the odd case where the leases are all nearing their end dates and the freeholder wishes to upgrade and obtain a more valuable building whilst passing on the upgrade costs to the outgoing leaseholders but, as was seen in the *Waalar* case,[100] the freeholder is then unlikely to be found to have 'reasonably incurred' the costs. So even if the lease prima facie permits recovery it would probably not be allowed if appealed under s 19 of the Landlord and Tenant Act 1985.

Where, alternatively, decision-making power lies collectively with the leaseholders (through a management company or owning the freehold), the problem may be that there are *differential incentives* to make energy upgrades. Although collectively those with power to decide will also be those who stand to benefit there may still be problems stemming from the fact that the benefits will not always be equally 'shared'. Service charges are generally calculated on a proportionate basis, perhaps based on the floor area of the flat, so that the costs are pooled and shared out by reference to a formula. If the roof needs repairing, all flat owners will usually contribute to the costs through the service charge, even those on the ground floor. Although this is the almost universal practice, it does not mean that it is necessarily

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fluctuate according to flat values.

[99] The CMA refers to the 'misalignment of incentives' as a case of poor market outcomes: CMA, `Residential property management services: A market study' (December 2014) 16 <https://assets.publishing.service.gov.uk/media/547d99b8e5274a42900001e1/Property_management_market_study.pdf> accessed 9 November 2016.

[100] *Waaler* (n 83).

accepted as fair or understood - a recent survey reported that:

'The volume of complaints regarding the perceived unfairness of paying charges that don't benefit their property (eg: for carpets in hallways they don't use) highlight many leaseholders' lack of understanding of leasehold'. [101]

In the case of energy upgrades, as there is no automatic mechanism for passing the costs through the service charge, any decision to make improvements will require the leaseholders to agree a means of sharing the costs but why, for example, would a ground floor flat owner agree to pay for loft insulation?

Further, with flats there may be a *'double-layered' split incentive* - that between the freeholder and the leaseholders, but also (where individual flats are rented out by the leaseholders) between the leaseholder as landlord and the occupying tenant.

Even if incentives and decision making power are aligned, this still does not mean that action will be easy. This then leads to the next challenge: how do you obtain the requisite level of support?

5.3 Consent Barriers

As the majority of leases do not provide a legal mechanism for MoPs to be improved and costs recovered it is only possible to make improvements by consent. This is quite extraordinary: as there is no provision for improving the building any upgrades will require agreement from everyone with an interest in the building (both to do the work and to contribute to the costs).

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[101] Brady Solicitors, 'National Leasehold Survey 2016' (June 2016) 12 <http://bradysolicitors.com/wp-content/uploads/2016/07/Brady-Solicitors-in-partnership-with-LEASE-Leaseholder-Survey-June-16compressed-3.pdf> accessed 19 July 2016.

The complexities of achieving 100% consent are so great that energy upgrades are very unlikely to happen. There will be many stakeholders with rights in the block, there will usually be a dissonance between those with decision-making power and those who stand to benefit from upgrades, there are logistical problems of engaging all of the parties who need to approve action, and, even when there is engagement, people will respond differently to the idea of cost, disruption,[102] desirability etc of agreeing to works. Matschoss et al argue that the main problem with energy improvements in co-owned apartments lies in the 'organization of owners' decision making' and related financial problems.[103]

5.1.3 Title Complexity

Many MoPs will involve a complex mix of legal rights and titles. Some units may be commercial, with completely different leasehold arrangements; some will be residential leaseholds occupied by the unit-owner and others may have absentee owners; and other units may be rented out on a short term basis, either directly by the freeholder or as sub-lets by the leaseholder. Leases may be of different lengths, with different wording, and different expiry dates. In addition, many of the unit-owners are likely to have granted mortgages, and the mortgage will typically state that the mortgagee's consent must be given before the property can be altered.[104]

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[102] The 'hassle' factor of building works is referred to in: Energy and Climate Change Committee, *The Green Deal: watching brief* (HC 2013-14, 142) 16.

[103] Matschoss (n 10) 1493.

[104] See for example: '4.8 You must not do any of the following before you get our written approval: (a) You must not alter the property…', taken from the Mortgage Works, 'Mortgage

Driven by concern about the difficulties of making energy efficiency measures to flats, Westminster City Council commissioned a study in June 2009 on the 'obstacles to improved energy efficiency in private residential flatted buildings in Westminster' (the EEFB project).[105] The study looked only at small blocks with up to 8 flats per building, yet even so difficulties in obtaining access and responses meant that data about the ownership and occupation within these blocks was incomplete. Furthermore, the results, summarised in Table 2, show that even within these small blocks, there was a mix of lease lengths, and a mix of owner (leaseholder) occupied and tenant (renter) occupied.

Table 2: EEFB Project: tenure mix [106]

Block	Flats Occupied by			Lease length where available
	Leaseholders	Renters	Unknown*	
A	3 (2 'intermittent' occupiers)		5	
B**	1	1	2	
C	3	2	1	88, 19, 92 years remaining

Conditions: 2009' <http://www.themortgageworks.co.uk/includes/pdf/T50_05_14.pdf> accessed 17 July 2016. In practice, this is probably seldom observed and mortgagees may be unclear how to respond to requests.

[105] ECD Architects, 'Energy Efficiency in Private Sector Flatted Buildings' [3] <https://www.law.ox.ac.uk/sites/files/oxlaw/energy_efficiency_in_private_sector_flatted_building_-_ecd_architects_may2010.pdf> accessed 17 July 2016.

[106] ibid. Table complied by authors from information in the EEFB report.

D	1	2		
E	1		3	
F	2	1	3	33 years remaining

* either refused to participate or no response

** one flat being refurbished, unoccupied

The interaction of these titles, and of the rights, powers, and obligations of the various freeholder, leaseholder - occupiers, leaseholder - landlords, renters, and mortgagees make it very difficult to work out what is and is not allowed to be done under the various title instruments. Further, the mix of interests will impact on incentives to do anything.

5.3.2 Logistical Challenges: Contacting People and Building Consensus

It will not be easy to contact all people with an interest in the building, yet alone to get them to reach agreement on action. In the Westminster EEFB project there was a concerted effort to contact leaseholders and freeholders,[107] but even then meetings could only be arranged with 2 out of 16 leaseholders and 2 out of 4 freeholders. The project report records multiple attempts at communication with leaseholders, occupiers and freeholders, many not leading to any contact. It states that approximately 50% of the leaseholder occupiers agreed to participate, and the

[107] ECD Architects (n 105).

response from managing agents was 'generally rather negative'.[108] The study also reports that many residents did not know who their freeholder was or how to contact them.

Other reports confirm the difficulty in contacting leaseholders.[109] The Nugee committee (as long ago as 1984), discovered that flat vacancy was perceived as a big problem (even) then: on census night 1 in 3 flats in 100 large central London blocks were vacant or without a usual resident.[110] Figures from 12 blocks in Westminster also supported this – looking at the difference between 1965 and 1981 the proportion of flats without one or more registered electors had increased from 10% to 30%. These figures 'suggest a sharp increase in the number of vacant and other non-permanently occupied flats since the mid-1960s'.[111] The more recent London Assembly investigation into residential service charges mentions that the prevalence of absentee property owners is an obstacle to bringing lessees/tenants together to exercise the RTM.[112] The detailed research carried out by Blandy into multi-owned housing included investigating a small development where 17 out of the 21 leaseholders had

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[108] ibid [3].

[109] In the context of the Green Deal, the *Engaging Private Landlords* report notes that the level of communication and cooperation required between landlords and tenants 'poses concerns and difficulties': Future of London, 'Engaging Private Landlords in Energy Efficiency' (December 2014) 2.4 <http://www.futureoflondon.org.uk/futureoflondon/wp-content/uploads/downloads/2014/12/Engaging-Private-Landlords-in-Energy-Efficiency.pdf> accessed 19 July 2016.

[110] Nugee (n 69).

[111] ibid 3.9.

[112] London Assembly Planning and Housing Committee, 'Highly charged' (n 66) 6.5.

expressed interest in setting up a RTM company, but an interview with the chair of the voluntary residents' association explains the difficulties: 'there are always a number of people who just don't take any notice, aren't interested, you can't contact them'.[113] A story on the Leasehold Knowledge Partnership website refers to the attempted exercise of the RTM and enfranchisement in a block of 137 flats, with only five per cent owner-occupied.[114] The leaseholder leading the drive for RTM went to great efforts to contact other owners: 'I paid for the information from the Land Registry and then tracked people down through social media,' she recalls. 'In the end, I got in touch with all but about four.'

Many flats are bought as investments, and either sub-let or are left vacant. This makes it difficult to make contact with the leaseholders. Baroness Gardner has raised the problem of non-responsiveness of non-resident leaseholders in the House of Lords, asking whether, in the context of the RTM, the Government might introduce a deemed consent provision for failure to respond.[115] The Government spokesperson said they had no plans to do so.

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[113] Blandy (n 56) 25.

[114] Leasehold Knowledge Partnership, 'The woman who tracked down 133 leasehold neighbours, organised an RTM and is now buying the freehold' (17 May 2013) <http://www.leaseholdknowledge.com/the-woman-who-tracked-down-133-leasehold-neighbours-organised-an-rtm-and-is-now-buying-the-freehold> accessed 19 July 2016.

[115] 25 November 2015, HL3933. Her written question was: 'To ask Her Majesty's Government whether they plan to legislate in connection with the right to manage in order to provide a limited time within which non-resident leaseholders who fail to respond can be deemed to have agreed to a proposal.'

Even when it is possible to make contact with everyone the factors that will feed into whether or not to give consent will be complex and reflect personal and economic circumstances, making it very difficult to achieve consensus on action. In the context of energy upgrades there will be different levels of concern about environmental impact and different perspectives on personal comfort. Many unit owners may not much care about energy upgrades (and certainly will not want to pay for them) if they have sub-let the flat and the renter is paying the energy bills. Some will be financially stretched and not able to pay towards upgrades. Some may be planning to sell in the near future and not interested in either improved comfort or long-term pay back. The Westminster EEFB project encountered a range of concerns being expressed about the suggested improvement works: the aesthetic effect of secondary glazing, the cost relative to savings, the disruptive impact of work, the loss of internal space and the impact on capital values (when wall lining was proposed), and the leaseholder who was planning to sell was not interested in payback.[116]

Given the challenges of contacting individuals, and building consensus, it will be extremely difficult to carry out energy upgrades if 100% agreement is required, which is the effective position in England and Wales. The next section considers what the alternative might be.

5.3.3 The Challenge of Getting a Collective Decision: Majorities

In other jurisdictions there has been discussion about the majorities required for collective action in the context of redevelopment. Assume, for example, that a block

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[116] ECD Architects (n 105).

is at the end of its functional life and thus is ripe for redevelopment: how many unit-holders need to agree to proceed with redevelopment? As Harris and Gilewcz explain, the rules for terminating or dissolving such schemes differ across jurisdictions:

'Most common is what we refer to as the supermajority rule: …usually at least two thirds and commonly more, may force the dissolution of condominium. The other approach – the unanimity rule- requires unanimous consent amongst title holders to dissolve condominium. Non-consensual dissolution and the involuntary loss of titles to land are still possible in regimes with a unanimity rule, or where the threshold is not met under the supermajority rule, but only with court intervention.' [117]

A unanimity rule creates the possibility of 'hold out' or 'veto' by a minority. The University of New South Wales conducted research (focusing on the situation in Greater Metropolitan Sydney) to explore equitable and viable solutions. The report, Renewing the Compact City, mentions that community participants in the research broadly accepted that single holdouts were a problem and should not be able to override the will of the majority, although there was also concern for those who were hold outs for reasons of vulnerability and hardship.[118] A number of countries have now moved away from a unanimity requirement in order to facilitate the renewal of MoPs.

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[117] Douglas C Harris and Nicole Gilewicz, 'Dissolving Condominium, Private Takings, and the Nature of Property' in B Hoops et al (eds), *Rethinking Expropriation Law II: Context, Criteria and Consequences of Expropriation* (Eleven International Publishing 2015) 263, 266. They state (at 271) that 80% is the most widely adopted proportion needed.

[118] Laurence Troy et al, 'Renewing the Compact City: Final Report' (UNSW Australia 2015) 55 <https://cityfutures.be.unsw.edu.au/documents/159/Renewing_the_Compact_City_-_Final_Report.pdf> accessed 19 July 2016.

In Singapore the voting system for collective sale was altered in 1999 to provide a threshold of 80% of votes (based on both share values and percentage of the total area of the lots) with buildings of ten years and over.[119] Change has also recently occurred in New South Wales, Australia, where the threshold has been reduced to 75%. The report exploring the issues relating to termination of schemes such as strata title notes an inherent tension in MoPs between notions of individual rights and rights that are contingent on the co-operation of others.

Similar tensions arise in the context of energy upgrades. In some countries there has been a relaxation of majority voting requirements. In Spain, for example, Lujanen reports that a decision to install any renewable energy source, such as a solar energy system, requires a one-third vote in order to bind all of the owners. In France, as part of a wider 'Energy Transition Law' passed in 2015, instead of requiring a majority of all shares of co-proprietors a simple majority of shares of owners *attending the annual co-proprietors meeting* is now sufficient to decide on measures for increasing the energy efficiency of a residential MOP – much easier to secure. The change in Scotland to allow insulation to be treated on the basis as 'repairs and maintenance' also effectively reduces the required threshold for a decision about insulation in common parts from unanimity to a simple majority of flat owners. It is, therefore, possible to think about ways in which decision-making could be improved, such as by introducing mandatory meeting requirements for owners' associations or by reviewing voting thresholds for energy improvements.[120]

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[119] ibid 12. Different thresholds are used in Singapore depending on the age of the buildings.

[120] David Weatherall, Frankie McCarthy and Susan Bright, 'Governance Barriers To Energy

5.3.4 The Problem of the Free Rider

In the absence of a voting mechanism that enables a majority to proceed and share the costs amongst all owners, the fact that a majority of unit-owners may wish to install an energy upgrade creates the opportunity for free-riding. Provided that those unwilling to pay do not veto the action, the others may proceed. The dissenting individuals will not have to pay towards the costs but will benefit from the improvement. In her work on governing the commons, Ostrom explains that the free-ride opportunity may also make collective action harder to achieve:

'Whenever one person cannot be excluded from the benefits that others provide, each person is motivated not to contribute to the joint effort, but to free-ride on the efforts of others. If all participants choose to free-ride, the collective benefit will not be produced. The temptation to free-ride, however, may dominate the decision process, and thus all will end up where no one wanted to be.'[121]

The free-rider problem may, thus, potentially block decision making, but even if it does not it may lead to unfairness.

Upgrades In Apartment Blocks: Insights From A Study Of England And Scotland' (BEHAVE 2016 – 4th European Conference on Behaviour and Energy Efficiency, University of Coimbra 2016, forthcoming).

[121] Elinor Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action*, (Cambridge University Press 1991) 6. Ostrom was, however, concerned with a very different problem to do not with governance of 'property' but with governance of 'common pool resources', that is, commonly accessible natural resources that are subtractable (one person's use of the resource subtracts from the amount available to others), such as fisheries and forests.

In practice, it is on a similar basis that local authorities may manage to upgrade blocks containing both rental and leaseholder flats even when the leases do not provide for improvements. If some leaseholders object the local authority can only go ahead on the basis that the local authority itself will carry the cost of work to the leasehold flats.

6. Conclusion

We have used two perspectives, within an overall ‘building governance’ framework to consider the challenge of improving the energy performance of MoPs. Looking at governance arrangements as barriers to decision making for energy efficiency, it is apparent that there are particular problems that flow from the governance arrangements. Some of these barriers are an inevitable aspect of ‘owning part within the whole’, as, for example, the need to bring enough flat owners together to agree upon collective action with a sharing of costs. As well as the practical problem of tracking everyone down who has a legal interest in a flat or the building, the diversity of personal interests and persuasions makes it very difficult to reach agreement to do work that will cause disruption, involve significant effort in planning and scheduling work, and will cost money. At the same time, there are additional barriers arising from the fact that flats are sold as leases in England and Wales and the way these leases are typically constituted, for example, that most leases do not allow freeholders to reclaim the costs of energy efficiency improvements. Some of these barriers could be addressed more easily by policy than others. Allowing freeholders to install, and recover the costs of, energy efficiency improvements could be addressed by statutory reform that provides for implied terms to this effect in leases.

Viewed from the perspective of 'barriers', many of the governance problems for energy improvements in MoPs are, however, so complex and messy that they just seem intractable, for example the problems of aligning the incentives and benefits for energy upgrades between freeholders, leaseholders and flat residents. Through the technology of law perspective, we see how the lease ends up constituting social relationships and material realities that are inimical to a long term, large scale transformation of the energy performance of the housing stock. Such a perspective inevitably focuses attention on more systemic policy reform, and to some extent the debate about energy upgrades reaffirms the need to re-examine how flats are sold. In 2002 a new legal system for flat ownership was introduced in England and Wales, called commonhold: this resembles dualistic systems, but it has failed to take off and new developments continue to be sold on leases.[122] The 1987 Law Commission report on commonhold observed that there are two 'inescapable limitations of the commonhold scheme: the human factor, and the physical wasting nature of buildings'. It continued, '[n]either commonholds, nor any other system, can solve all the problems inherent in people living close together. Commonholds will only work if people co-operate in abiding by regulations and participating in management.'[123] Whichever legal form is used for the sale of units within MoPs, it must provide a mechanism for effective management that acknowledges the tension between the rights of individual unit

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[122] Commonhold and Leasehold Reform Act 2002, Part 1. : L Xu, 'Commonhold developments in practice' in Warren Barr (ed), *Moderns Studies in Property Law – Volume 8* (Hart Publishing 2015) 331.

[123] Law Commission, *Commonhold, Freehold flats and freehold ownership of other interdependent buildings. Report of a Working Group* (Law Com No 179, 1987) [1.24].

owners and the interests of the collective, but also the wider public interest in urban design and planning, and environmental concerns. But as Blandy and Robinson observe, policy and reform documents are 'silent on the issues of cooperation and participation, and the resolution of disputes between owners has not been given the attention which it deserves'.[124] They argue that:

'a metanarrative of multi-occupancy, acknowledging the inevitable difficulties and co-dependency which arise from sharing the same building, must be enshrined in the powerful discourse of law. The idea that residents have to give up "some of their *individual* rights ... but gain *collective* rights ... of control over the immediate environment surrounding their home" requires embedding in our conception of multi-occupancy.'[125]

In other words, whatever the decision-making structure, the challenge is that individuals will tend to act in a self-interested way whereas what is needed is a vision for the 'good of the collective', and indeed of the wider public interest in health, wellbeing, and carbon reduction.

The problems around governance of MoPs and energy upgrades, largely neglected by energy researchers and policy makers to date, are an urgent policy priority. As Matschoss et al note, the particular problems of MoPs are not 'very visible in the policy discourse, which focuses on barriers to energy investments on a relatively

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[124] Sarah Blandy and David Robinson, 'Reforming Leasehold: Discursive Events and Outcomes 1984-2000' (2001) 28 Journal of Law and Society 384, 397.

[125] ibid 408.

generic level.'[126] This is a significant demonstration of how the failure to '[connect] legal language and legal categories to the physical world'[127] directly impacts on the effectiveness of environmental policy making: because of the complexity of property law, it is very difficult for policy makers to understand and develop home energy programmes that tackle the real world. Given the urgency of the need to reduce the contributions made by residential dwellings to carbon emissions, it is important to address the fact that the legal forms used for the sale and management of MoPs typically hinder energy upgrades and this presents a major barrier to an urgent transformation in the sustainability of the building stock.

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[126] Matschoss (n 9) 1493.

[127] Nicole Graham, 'This is Not a Thing: Land, Sustainability and Legal Education' (2014) 26 (3) J Environmental Law 395.