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Executive summary

**Social housing, energy management
and combating energy poverty**

in France (Paris, Hauts de France, Nancy)

and in Europe (Great Britain, Germany, Spain)

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Summary. The French Case

From the strictly economic point of view, the tasks of social housing organisations today, once limited to that part of the construction industry addressing the needs of more or less solvent populations, have profoundly changed. Social housing is required to take on the ever-heavier burdens of social inequality and provide support to tenants living in precarious conditions.

The context of social housing is 1. economic: it is required to meet obligations of both financial return and of innovation, 2 political: it must honour commitments to energy efficiency and respect for stricter regulations, and 3. social: insofar as new tasks of support for local communities are an additional burden of responsibility on social housing.

Thinking about energy poverty requires facing the challenge of how to conceive the necessary interplay between the classic, essentially *economic* role of the housing association, and social housing's contribution to *social justice*, as currently and in the future tasked. These combined roles should be perceived as harmonising with, and not mutually excluding, one another.

However, “contradictory obligations” (as we shall refer to them) do exist as between the economic and social aspects of social housing responsibilities. The imperative of rigorous respect of energy standards is driven by government commitment to energy efficiency, but paying for these standards is scarcely compatible with the income levels and ability to pay of social housing tenants. The necessary investments demanded by the State in terms of housing renovation to attain energy efficiency standards often fail to materialise in energy savings on tenants' bills. Other contradictory obligations are how to ear-mark residential accommodation for the most disadvantaged while maintaining social diversity (i.e. high and low income populations in the same neighbourhood), or seeking innovative solutions reserved to a smaller number able to pay, as against the increasing need for the more general attainment of average standards for the majority of demands of a broader section of the population.

Dealing with the subject of energy poverty in social housing means taking into consideration the various points of view associated of those involved – landlords / tenants and also public sector actors and social services.

Further to the social need to deal with energy poverty, there is the dimension of collective action.

This “*Executive summary*” is composed as follows:

1. Exposé of problems in France relating to energy poverty as faced by those involved, namely a. landlord, b. tenant, c. social organisations, d. the State,
2. Recommendations,
3. Main outcomes shown in comparative tables for the three French sites surveyed
4. Main outcomes shown in comparative tables of three countries in Europe (case study of Barcelona was the work of Lise Desvallées, LATTs).
5. Summaries of the various chapters making up the final report, which is comprised of 7 monographs (field surveys)

I. Problems of energy poverty in France

Thinking about the interconnection between social housing and energy poverty should take place in the framework of the two major changes that have driven social housing in the last few decades.

The first aspect is that of time. A number of “macro” trends should be taken into consideration as they have led to profound transformations in social housing in and outside France. A brief chronology will help better understand the constraints which weigh down on social housing landlords, whose roles have undergone profound change.

The second dimension is best qualified as “methodological” insofar as energy poverty cannot be assessed simply in terms of quantitative indicators, no matter that such may exist (room temperature 19° or 20° or 10% share of family income spent on energy). Undeniably important as these indicators are, reflection must in the future take into consideration a number of more cross-sectoral policies, bringing into play over time various actors, from private and public sector to the associations.

Hence the notion of “contradictory obligations.” This concept seeks to show the complexity and even the internal contradictions of constraints laid upon social housing landlords.

1. Major changes over time

The major macroeconomic changes over time require a brief review, to explain the change in the profile of social housing landlords in France. This overview of the past will help better understand some of the constraints of today.

1.1. Social and economic change

The transgenerational dynamics of mass unemployment, deepening uncertainty about career paths, de-industrialisation and lower public spending, have increased levels of inequality as assessed by population quintiles. All the foregoing phenomena have profoundly modified the situation of occupiers of social housing facilities.

Poverty levels in France were 14.1% in 2010, or 8.6 million individuals below the monetary threshold of poverty of 964€. This segment of the population is experiencing deepening inequality.¹ Failure to find paid employment is the cause of financial problems resulting in dependency on social benefits (in France the RSA (social income allowance), the *allocation d'autonomie* (independence allowance), single parent allowance, *minimum vieillesse* or minimum old age income supplement, for example). If households draw social benefits and are beneficiaries of housing benefits (APL), accommodation may be provided in line with family size, and most of the rent may be paid with only a small part out of the tenant's pocket. Even

¹ According to the Observatoire des inégalités, in 2013, the poorest 10% of the population received less than 3% of overall available household income (2.9%) whereas the most affluent received 27.3% of total household available income, and the income of the latter segment is increasing faster than the income of the former. *Report on inequality in France*, by Anne Brunner and Louis Maurin, published by Observatoire des inégalités, June 2017

so, the disposable income for those dependent on social benefits is severely limited and rental arrears are trending upward.

1.2. Societal changes

The larger social housing blocks that were the priority for the construction industry of the 1970s have definitively shown their limitations and are held to be one of the very causes of social distress, due to their concentration of high levels of social deprivation and their attraction of antisocial and of socially unacceptable behaviour of all kinds from drug trafficking, violence, vandalism, etc. Renovation has in most cases involved the destruction of such blocks and their replacement by smaller buildings. In the individual housing units characteristic of older-style industrial areas, poor condition caused by age is a factor of extremely widespread energy poverty in a population that in many cases (but not always) is older and may experience deeper levels of deprivation than elsewhere. Renovation in these areas comes at an extremely high cost: in the former French mining areas, at around €50,000 / €60,000 per unit, without being offset by any rise in rents chargeable to tenants. This alone demonstrates the huge effort that social landlords must make in Northern France, for all that some costs might be passed on to tenants gradually over time.

1.3. New types of disadvantage and lack of social inclusion

Populations of “blue-collar” workers were traditionally subject to and victims of the vagaries of economic change. In addition to the traditionally vulnerable groups of single mothers, there are three new categories of disadvantaged groups:

- First, low paid workers who may rapidly find themselves trapped in poverty as a result of a minor accident, but whose income levels prevent them drawing on public assistance. Such groups are less visible than others, perhaps because there is no system of state support for them.
- Second, pensioners with lower income levels on retirement, as pensions have increased very little at a time when pensioners’ living expenses have been rising, forcing substantial drops in standards of living.
- Finally, recent waves of immigration or of migrant populations whose integration for some is not easy. As compared to the past, the influx of new populations is fundamentally disruptive of collective action, of habitual modes of reaction and causes loss of bearings for older tenants in social housing. Modes of collective living are fundamentally changed and neighbourhood relationships pay a heavy toll. Former avenues of social intercourse, such as tenants’ associations and others, have suffered or fallen into disuse without being replaced by other forms of collective action. The issue of integration of migrant populations is on the table and unresolved.

It is certain that the influx of new populations of migrants / refugees will be a major challenge for social housing landlords in the years to come.

1.4. Political change

In addition to the above trends, which are the significant features of the last few decades, there are the political demands made of social housing by the State in terms of commitment to preventing climate change, by reducing CO2 emissions and improving energy efficiency. A considerable part of energy efficiency measures planned for implementation is reliant on action by the social housing landlords.

1.5. Introduction of a legal definition of energy poverty

The legal definition of energy poverty in France (Article 3 bis A of Law No. 2010-788 of 12 July 2010 instituting a national commitment to environmental protection) identifies the objective features of energy poverty as low income, poor quality of accommodation and energy prices. The measure of energy poverty is a greater than 10% share of disposable income (without vehicle fuel costs) spent on energy. Also taken into consideration are the types of heating used and consumption habits. The Observatoire National de la Précarité Énergétique (ONPE – National Observatory of Energy Poverty) takes the view that one French person in five suffers energy poverty, that is, that they spend 10% or more of their disposable income on energy (2.8 million of households or 10.4%), or alternatively declare they suffer from cold in the home (1.6 million or 6% of households).² Again, according to ONPE, energy poverty affects 39% of tenants of social housing. However, the situations experienced by landlords and tenants diverge sharply in terms of what the legal framework offers them, as will be seen later in this study of the situation in France.

This initial factual overview of the situation explains the rationales of the actors involved.

2. Landlords, tenants, housing associations and the State – in context

The problem of energy poverty brings four players into consideration at different levels, intervening in a manner not necessarily well coordinated. The challenge of any rational thinking about energy poverty is to take into consideration the following:

1. the necessary interpenetration of the classic role of landlord (an economic function specific to a public service mission requiring surplus income to be reinvested in the housing organisation itself) and of the new social responsibility laid upon the landlord, an obligation that should not be in contradiction with the former.
2. cooperation of various actors, whose strategies are not always compatible.

2.1. Landlord

The rationale of the social housing landlord arises from the various functions it is called

² According to the Indicateur des Bas Revenus - Dépenses Elevées (BRDE – Low Income – High Costs Indicator), 13.9% of French households suffer energy poverty, i.e. 3.8 million households (ONPE, 2016). Depending on the indicators used, between 6% and 13.9% of French households may be considered to suffer energy poverty.

upon to play, these being:

- Economic, governed by financial rates of return,
- Social, related to landlord's obligation to provide accommodation to low income populations and in certain cases to insolvent persons or families
- Cooperative responsibility, in terms of partnerships that must be developed with other public actors (local branches of Central Government (*préfectures*), administrations and local government authorities (*communes*)), private sector (energy suppliers and service providers) and associations (charitable and similar),
- Political, in connection with locally-elected members in charge of policies on urban life, renovation and housing,
- Administrative functions in connection with educational institutions, hospitals and policing bodies to deal with individuals in difficulty.

The result is a series of contradictory obligations, the most manifest being the impossible but nevertheless necessary achievement of energy efficiency alongside economic efficiency, social efficiency and political efficiency, all of which come into play if housing needs are to be met at the local level. Contradictory obligations confront social housing landlords who are called upon to make a choice between two conflicting demands:

1. Meeting standards of comfort in the interests of tenants able to pay for the costs of meeting those standards, or alternatively
2. Not meeting those standards and delivering housing services that are in energy terms less efficient and therefore more likely to promote energy poverty, even if the rents paid by those suffering such poverty are more affordable.

Between these two conflicting extremes, is it possible to conceive a standard, midway course of action by proposing housing services of an acceptable level of comfort at affordable rents for the largest number?

Beyond issues of financial resources, there is the contradiction facing social housing landlords who must choose between either investment in the mass roll-out of upgrades to a mean level of energy efficiency (level C) for the largest number, or alternatively invest in exemplary projects by adhering to the highest BPOS standards, which are affordable for a small number only.

This contradiction can be reformulated as the choice between two antinomic options:

1. **either** services of higher quality (higher standards) to be paid for by tenant populations with sufficient disposable income,
2. **or** lower quality services in geographical areas that become even more isolated and peripheral

The question is whether landlords should take broad action to overcome widespread inequalities of income, or whether they should go for more limited, targeted and effective action.

Should the attainment of targets set in economic, climatic and social terms mitigate or seek

to reduce inequality? or is there not a real risk that setting such targets will actually increase inequalities? The question is therefore to what extent the energy efficiency targets imposed upon social housing landlords enable them to respond adequately to inequalities.

2.2. Tenant

Tenants, for their part, are of four types, and categorised by contexts which are in part interdependent:

Economic context marked by low or even nil income, where individuals or households are unable to pay, particularly if the type of accommodation in which they live is unsuited to their ability to pay.

Social context in which deprivation affects the most disadvantaged members of society—the clearest expression of which is not only low revenue but low skills going hand in hand with issues of poor health and low educational attainment—generating highly characteristic behaviour (run up of debt) and hence inability to find one's place in the social fabric and consequent withdrawal from political life, or if not, seeking refuge in an increasingly narrow range of extremist opinion. Energy poverty is often an index of deprivation in the widest meaning of the word, the nature of which is the impairment of individuals' ability to cope with the political and social functions of community living.

The territorial context, by which is meant the type of housing, individual or collective, older or modern, located in a predominantly built-up or scattered area, and in a regional environment most often hit by economic crisis.

The energy context is characterised by market liberalisation. This was to have brought about lower prices, although energy tariffs are constantly on the rise, putting additional pressure on the already tight budgets of the most vulnerable consumers.

This set of factors has made energy poverty a problem close to, but distinct from, income-related poverty.

Tenants must not only pay their financial due in terms of rent and service charges, but also meet the obligations of their private life, sometimes by choice at the expense of payment of rent. In other words, payment of rent may be the last on the list of expenses to be paid off. This is not due simply to ill will on the part of individuals, but also because over-tight budgets are an incentive to give greater priority to some expenditures over others. This is demonstrated by their weighing the risk of electricity or gas disconnections which are quick to order in the event of failure to pay, and of the deferred risk of eviction because procedures take longer. Finally note the disincentives to return to employment because working at the minimum wage cancels entitlement to income support, even though wages may bring in less money than statutory entitlement to financial assistance. The question arises of the true value to those assisted of the policy in their favour and of its degree of assistance in the resolution of conflicts.

2.3. Voluntary and charitable associations

Voluntary and charitable associations are the third actor. They may be distinct from the social housing landlord and act upon its behalf, or may be set up within the social housing provider's organisation. Contradictory obligations exert their effect here but in a different way.

The long term experience of voluntary and charitable associations in connection with poverty and income precariousness, is that top-down or vertical and segmented approaches are ineffectual. Transversality is often mentioned as the most appropriate response to the complexities of economic precariousness. The concept here is holistic and seeks to take into consideration all aspects of the life of those affected. Energy poverty, as a personal issue, puts the spotlight on the individual burdened by numerous issues and unable to resolve problems, of which lack of heating comfort is only one aspect.

The above once accepted, what should be done? Should social support be internalised or externalised? If the latter, should there be entrusted to an "all-inclusive" association, the processing of all issues arising in connection with energy poverty (healthcare, education, etc.)? This however, raises the risk of reproducing the bureaucratic difficulties of dealing with clients or claimants "on file." Or is a smaller scale "structure" the only one able to support a de-socialised individual on a "customised" basis? But if so, will this not entail considerably higher costs and the expenditure of far more time? Should this cost, furthermore, burden the social housing landlord? How can it be shared between public sector actors and energy suppliers?

2.4. The State

Finally, the tenant's rationale can be differently grasped by emphasising the State's obligation to permit all individuals to develop their life projects and be more responsible citizens by enabling them to accomplish certain tasks, namely:

- Family duties by taking on the responsibilities of adulthood in regard to partner and children;
- Professional responsibilities through the use of personal capacities and skills;
- Social and cultural development through networks of personal affinities enabled by geographical or emotional closeness;
- Political obligations by acting as a responsible citizen.

The notion of "capability", which seeks to account for all the conditions that contribute to the accomplishment of the tasks expected of every citizen in a society, must henceforward be negotiated on the sole basis of the equality of the rights and duties of the two partners, the State and social housing landlords.

In other words, the socially beneficial action which is now and in the future expected of landlords implies that they put into place collective actions, the return for which is their full scale inclusion in local political, regional and national political life. This was already the case for housing policy in the past. What has changed now is the nature of the handling by social landlords of social deprivation more generally. Social housing organisations have, as

business enterprises, become full-blown actors in economic, social and political life.

If the State cannot regulate affordable energy prices, and hence contributes to jeopardising the living conditions of the disadvantaged, and if furthermore the State burdens social housing landlords with the duty of performing the socially beneficial tasks required in such situations—in other words, if the State washes its hands of the situation—the question arises, to what extent are social landlords actually able to:

1. further influence public policy-making?
2. create new partnerships, and if so on what scale? In a word, is innovation possible in the economic and social environment?

We conclude with the following points:

Given the new duties of social housing being no longer limited to a provider of accommodation at lowest price, landlords are at the interface of several sectors and actors beyond the pale of their own organisation, among them public sector administrations, social services, social partners, etc. The question is whether or not this interaction with other partners (public sector and voluntary associations) is a source of the elements of a solution.

Combating energy poverty means fighting for a policy in an urban environment that will implement the collective actions of both private and public sector partners. It also means seeking to balance investment in higher quality buildings against tenants' ability to pay for that investment even though their rents remain affordable. Finally, social housing landlords can certainly take on board energy issues in their sphere of influence, but may also need to broaden their skillsets to include hitherto untried social practices such as cooperative ventures for the supply of energy.

In regard to all the above issues, the question of the responsibility of the State is raised.

3. Research. Case studies

In France, surveys and investigations took place as follows:

In Paris and its suburbs, with social housing landlord ICF Habitat la Sablière, in Paris

In Hauts de France region, with social housing landlord SIA in seven mining towns: Douai, Lens, Valenciennes, Béthune, Noeux-les-mines, Denain, Liévin.

In Nancy – Metz, with social housing landlord Batigère Nord Est

Immobilière des Chemins de fer, ICF Habitat la Sablière

ICF Habitat la Sablière is a subsidiary of SNCF French national railways organisation, the governing body of four social housing undertakings in Ile de France and of three related companies operating in the North East, South, and Mediterranean and Atlantic regions. These are organisations known as Habitations à Loyer Modéré, i.e., they are providers to tenants of accommodation known "Moderated Rent Housing." A last company NOVEVIS operates nationwide as a housing provider outside the voluntary agreements laid down by Statute.

The group has 98,000 units of accommodation under management. ICF Habitat la Sablière for its part manages 39,000 units, breaking down as 4,000 rooms in hostels and 35,000 family units, housing a total of between 270,000 and 280,000 people.

ICF is owner and manager of family units, and handles the selection and allocation of housing on a cooperative basis alongside public sector actors, from tenants' first move into properties to general housing management. For hostels, ICF as owner of the buildings, works through signed agreements with specialist hostel management companies.

Two buildings were covered by the survey

156 – 158 160, Rue des Poissonniers. This location is hemmed in by the railway, the Paris ring-road and the main boulevard, consisting of two buildings and a further building acquired at a later date, transformed into social housing. The population is massively from the Maghreb and sub-Saharan Africa and is deeply financially disadvantaged.

8 – 10 rue du Terrage 75010. This renovated 1930s building has benefitted from improvement works installing insulation and collective gas heating. Clients are older persons living in small apartments.

In the suburbs, the survey encountered difficulties because tenants were unwilling to be interviewed. But some (a dozen or so) interviews took place in Argenteuil and Bois-Colombes.

SIA

SIA is a private undertaking, a subsidiary of Habitat en Région, the holding company of BBPCE, owned by Caisse d'Épargne. The President of SIA is also President of Caisse d'Épargne France Europe, based in Lille. SIA was previously a subsidiary of a mining company, for which it provided housing for miners. From that period dates its role as owner of extensive housing assets in mining areas, for which costs of acquisition have been largely paid off, although now the need is to spend substantially on refurbishment (in the order of €55,000 to €60,000 per house), occupiers living in generally very deprived circumstances.

With 44,000 units of accommodation, SIA is one of the largest social housing undertakings of Nord Pas de Calais region. Although SIA is an active builder of housing, particularly in metropolitan Lille, its history is linked to the mining regions, where 75% of its assets are individual houses, dropping to 50% in the Nord Pas-de-Calais region. These areas are ones of substantial deprivation.

Interviews with SIA managers took place in branches at Douai, Valenciennes, Lens and Noeux-les-Mines. Interviews with tenants took place in Béthune, Walllers, Denain, Liévin, Raimes, Ecoaudin, Lens, Escautpont, Sallaumines.

Batigère Nord Est

Batigère Nord Est is a company owned by private shareholders performing a public interest mission for the construction, sale or tenancing and management of social housing. This public limited company providing housing at moderate rents (its status being HLM SA) owns houses formerly occupied by steel workers, which it has transformed into social housing. Set up at end 2009, with the merger of a number of regional social housing landlords, this socially responsible undertaking working in the housing sector is part of the Batigère network, a group of 17 companies historically operating in social housing in Rhône Alpes, Lorraine, Franche Comté Bourgogne. A total of 155,000 housing units are under management, approximately

5% of the national stock of rented social accommodation, housing 230,000 people.

Batigère Nord Est manages 20,000 units in Meurthe and Moselle and in Alsace, with an occupancy rate of 3.5 persons per unit and overall vacancy rate of 5%. In an average year, Batigère Nord Est sells 140 units of accommodation and builds between 250 and 300 units.

Batigère Nord Est employs a staff of 245 of which 142 are allocated to neighbourhood management in 11 branches, 9 in Lorraine and 2 in Alsace, dispersed over the landlord's catchment area and managing 1,500 to 3,000 rented units each, being charged issuing notices to pay, recovering arrears, managing tenant charters and the relationships with the local communities served.

Interviews with representatives of management took place in Nancy and Metz. Tenants meetings were held at a teaching workshop on energy savings organised at Florange.

II. Recommendations

The broadly shared view—backed up by the facts—is that social action is now of prime importance. Not to take this into consideration and not to act accordingly in the day-to-day, could be a further source of extraordinary cost. The cost of inaction is an issue in its own right, and it is only by innovating and assessing in advance the cost of inaction, that landlords will earn the support they need from the State.

The other salient fact is the never-ending and seemingly unstoppable reduction of State subsidies. As a consequence, landlords have had to take over more responsibility for tenants and for their immediate environment.

The recommendations that follow are drawn from various studies making up this report. They are classified into seven chapters.

Situation as it is known to exist and has been known to exist for many years

Relationship with public sector players: The State and the administrations

Treatment of Deprivation. Holism, Transversality, Territorial Cohesion

Cooperation among actors

Relationship to issues of energy

Tenant rights and duties

Remedy deficiencies in financial support and benefits system?

Among such recommendations, some are no more than “pious hopes” and others—the most important—are reasonable and hence deserve being put into effect.

Pious recommendations are all those relating to French style governance, by which is meant the combination of substantial decentralisation of responsibilities which are devolved to local players (and hence to landlords) within a solid framework of public sector administrative centralisation. This system has largely defied change. Hence they have accumulated the tensions that are so characteristic of the French administrative system, between Central and Local levels. The effect is an increase in demands made upon the local level emanating from the centre (aka “contradictory obligations”).

Reasonable recommendations, which are the most important, are those that concern matters of energy and systems of assistance and cooperation between actors. These may be the arena of major innovations.

These recommendations do not lay claim to being radically innovative, nor are they overly prescriptive. We understand that every local situation has its particular circumstances. These call for specific actions suited to those circumstances, which in many cases cannot be

more generally applied.

These recommendations are put forward as more of an invitation to exchange views and to debate, in an approach of critical assessment of the different local circumstances.

1. Situation as it is known to exist and has been known to exist for many years. Recap of measures taken, of legal enactments passed and of the lessons of experience.

The recommendations we referred to as “pious hopes” are those content with the repetition of the outcomes of numerous studies down the years of the measures agreed, of the standards adopted, and of the extraordinarily large number of laws passed. Legal and other enactments have been superposed one upon another without consideration given to feedback from experience. This is a typically French trait, of constantly passing new laws and responding to issues raised through new enactments without attention to the cumulative effect of the legal outcome. The initial demand must therefore be to simplify the legislative framework.

1. The problem, as always, is how to **measure** the results of social action. What outcomes if any? How to respect rules which pile up one on another? How to attain targets in situations of ever-increasing complexity, which make assessment impossible, etc.

Bureaucracy: superimposed regulations and the difficulty of reducing their complexity without adding further rules on the (spurious) grounds that further rules are added for simplicity’s sake. The real challenge is how to ensure appropriate control with fewer rules? How can efficiency be increased without an increase in regulations? What can be done to ensure that trust is not misplaced?

2. Demand a ban on new housing laws.

3. **Allow easy-going experimentation to take place** without immediately seeking to constrain innovation with regulations.

4. **Reflect on how to bring about change to the multilayered complexity of administrative responsibilities, while ensuring local Mayors retain their powers of allocation of social housing.**

2. Relationship with public sector players: The State and the administrations

Over and above the demand to slow down or even completely halt the issuance of new enactments and standards by public sector administrations, those parties acting in the general interest (i.e. in the “public sector”) are faced with innumerable demands such as cost reduction, insurance, training, financial packages and the energy transition... There is no overview of what the energy transition means. The concept of the 3rd industrial revolution and the theses advanced by Jeremy Rifkin are given banner status by the Hauts de France

Region, but outcomes in practice appear to be limited to a few experimental approaches and the momentum has seemingly been lost.

1. Bring to the notice of Ministers the consequences of their regulations, of which they are too often unaware, and thereby draw their attention to the stupidity of certain administrative costs arising from regulatory over-complexity.
2. Ministers should be asked to provide more coherence, 1. between short and long term objectives, and 2. over the time required to assess the validity of technical recommendations and thereby set better priorities in the framework of the energy transition.
3. It is desirable to create the possibility of **insurance for “works damages”** (conceivably by mutualisation of risk through a State insurance fund) thereby allowing innovative work to go forward without fear of the consequences This would be an incentive to industry and social housing landlords to engage further.
4. Representative bodies of service provider companies should raise the issue of **expanding training** for construction companies installing innovative facilities in renewable energy, to ensure that innovations when implemented, actually work.
5. **Finally, in the renewable energy field**, various programmes should be managed by local authorities so that they can acquire ownership locally. If not, the likelihood of success is low. The experience from Germany and Great Britain should be more closely examined. A number of participatory financing approaches have come to light. How could further thinking be given to this in France and how could social housing landlords consider adopting such techniques themselves?

3. Treatment of Deprivation. Holism, Transversality, Territorial Cohesion

The following recommendations concern a methodology for action in the field of individual support. Contrary to the top-down or silo-based approach adopted by French Administrations, that are by definition sectorial, the approaches adopted by social housing landlords should conceive of their impact on the individual holistically. Consequently, thinking is required about the nature of decentralised economic and social action by the landlord, insofar as it goes against the central and top-down rules laid down by the Administration. Here we confront a typically French situation whose unfitness for purpose appears all the greater in a context of EU recommendations, which on the contrary promote decentralised governance or socially more cohesion approaches.

1. Energy poverty is often an aspect of a much more extensive situation of deprivation. Rather than manage individuals seen as merely “deprived”, **holistic approaches should take into consideration** the broader context of education, healthcare, employment, income levels...
2. For this reason, the holistic approach that should be adopted towards individuals is recommended as a **transversal strategy** for public sector policy-makers and

those implementing these policies in the fields of education, healthcare, employment and mobility.

3. Because energy poverty in the overwhelming majority of cases is due to insufficient disposable income or lack of or inadequate paid employment (often located far from the home), equally involved are **issues of transportation**.
4. For this reason, the need is for territorially-based thinking in terms of **social, economic and territorial cohesion**. Hence the public subsidies should be rethought from an overall perspective (similar to what is advocated by the EU Cohesion Policy).

4. Cooperation among actors

When we leave the field of generalities outlined above, one of the very first conclusions of the study is to reinstate the importance of social responsibility of social housing landlords. This dimension has become unavoidably fundamental. Hence to promote collective action in its widest possible understanding means setting multi-dimensionality as the first goal. This translates the notion of holism into action at any one time. Developing the spirit of identity of the local collective entity or community is essential.

1. This further involves reinforced interaction by **landlords with tenants (in the form of support), alongside voluntary and other associations (under procedures of internal or external contractualisation) and service providers (by means of contracts and training)**.
2. **Doubtless this will mean bringing about greater margins of action available to advisers** / who currently feel over-distant from concerns out in the field and for those advisors confronted with such problems, demand a greater margin of manoeuvre.
3. This implies creating an **identity**, and hence a **community** based on common local projects, doing so by setting up the necessary tools to ensure that tenants achieve ownership of their own environment (gardens, cleaning, etc.). Empowering tenants by giving them greater responsibilities requires in counterpart cutting back some expenses and trimming budgets accordingly.

Work is therefore required with **local communities and representatives of ethnic groups** on innovative means of communication and the avoidance of condescending attitudes.

5. Relationship to issues of energy

This relationship is composed of two elements, Equipment and Support.

Equipment includes all the appliances fitted in rental accommodation with a view to reducing energy consumption.

The other important aspect is recommendations on user behaviour and the need to support tenants in a virtuous approach to energy savings and correct use of appliances in the home.

1. Reflection should be given to **kitchen** (and bathroom) **appliances** on tenant's first move in, the aim being to curtail energy consumption effectively
2. Further consideration is required on how **to negotiate new systems for the collective purchase of electric power** more beneficial to tenants as a whole, in order to reduce power bills which are known to be a main cause of energy poverty.
3. **Education.** Social innovation aims at accompanying tenants in their "energy" behaviour. There are many initiatives, among them the one of PACT association or energy kits. Education in virtuous consumer behaviour should begin in schools because, according to much evidence, children are the best means of conveying information. Such an approach should focus on support to vulnerable persons to help them understand how to adopt energy saving behaviour and how to use new modern energy facilities to reduce energy bills. The written word is not enough. Recommendations on energy savings in many cases are meaningless for a large number of households, who are going short on heating or lighting in order simply to be able to pay the bills.
4. Hence the recommendation is to support and reinforce **fun initiatives and, on the other hand, introduce incentives.** Recognition of effort, when it is due, should also be given unsparingly.
5. This raises questions about the rationale of so many minor innovations intended to modify behaviour, many of which are **inefficient** (like the box installed and forgotten).
6. For these reasons, **new thinking should be on how to anticipate the one-off annual energy adjustment bills and can place vulnerable household budgets under great financial pressure.** Energy suppliers should be mobilised to a greater extent than at present, and better manage arrears, including more forward planning in regard to billing adjustments.

6. Tenant rights and duties

The following list of recommendations focuses on tenant duties. Many views collected from employees of social housing landlords denounce tenants' failures to meet their obligations. When it comes to arrears, some tenants may be determined to run up debts with the idea that a Banque de France file may in the end write off all their debts. How educate people about the ways and means to avoid debt? How can rent payments no longer be considered the least priority and become an obligation to pay like any other? Recommendations such as these bring into play education in the widest sense of the word, education for citizenship. Such approaches should be supported by landlords as part of their support to tenants in better management of their disposable income.

1. **What can be done to ensure that payment of rent is top priority?**
2. **Supporting better management of disposable income.** This involves 1. reducing

energy costs, 2. preventing rental arrears by assisting in budget management, 3. giving further thought at landlord level to tenants' share of household income devoted to rental and other charges, failure to do so being likely penalised by tenant's further slide into arrears, 4. better use of sources of financial support.

7. Remedy deficiencies in the financial support and benefits system?

The support system (housing benefits (APL) and others) has often been criticised on grounds of its unfairness. It offers no incentive to find employment and makes insufficient distinction between those who work and those who do not. Hence the vital need to rethink these arrangements and possibly replace them by others. If so, by what? Discussion along these lines should take place along with discussion on arrears.

1. What action to ensure that financial assistance is not considered as **a mere substitute for employment income** so that the French social system is not there to be simply "milked" (the belief being that claimants may be able to claim more than enough to make ends meet).
2. **Further thought** should be given to re-emphasising the **connection between rights and duties**, namely, not only the tenant's right to housing, but the tenant's duty to pay.
3. All persons working on low salaries should be eligible for assistance to top up wages, in other words, the social system should compensate for failures of the economic system.

III. Energy poverty. Challenges of social housing in France

The comparison of three French locations (Paris and suburbs (ICF la Sablière), Hauts de France (SIA) and Nancy (Batigère Nord Est) highlights a number of factual observations.

The first consideration is the difference between Paris and the provinces. The difference is enormous on three levels. Firstly, as regards energy poverty, as experienced by tenants themselves. In the buildings investigated in the capital, energy poverty is barely mentioned, which is very different from Hauts de France, where tenants make frequent reference to the cold and wear and tear of the building they live in. But although energy poverty is hardly mentioned in Paris, deprivation as such is mentioned as much in Paris as in the provinces. In this respect, there is no difference between the two populations. Involved are low paid workers, the disabled, single mothers, low income pensioners and many more. The same cross-section of the deprived population is found in Paris as in the provinces. Possibly there are more recent incoming migrants in the capital, but the Hauts de France and Lorraine regions are in themselves notable targets of inward migration and centres for refugees. Drug-related issues are mentioned more in Paris, but on the other hand, uncivil behaviour and aggression have an equally high profile everywhere, irrespective of location. Can it therefore be concluded that there is more violence in the capital? Caution must be shown in this respect and the only conclusion to be drawn is that violence is perceived in all areas as an evil.

Second consideration: social housing landlords have a partial understanding only of the energy poverty suffered by tenants. This is explained on the one hand by there being no suitable definition of energy poverty available to landlords. Quantitative measurements of the share of available income spent on energy are a relative measure. In reality, levels of available income differ depending on whether an RSA allowance is served (€480), or a family allowance (CAF) which can rise as high as €2,000 monthly (possibly the case for some large families). Another factor of uncertainty which all agree upon is that the measure in quality terms of excessive heat or cold is a relative matter, and depends both on persons and the nature of the building, and even on where accommodation is located within that building (apartments isolated at the extremities of the building or nestling between two apartments).

Additional uncertainties relate to tenant behaviour. The rebound effect is mentioned everywhere. Measures of support, information and follow up are also features of the strategies pursued by the three social housing landlords interviewed. Another aspect of uncertainty is arrears. Although total arrears vary according to landlord, the causes of arrears are similarly identified in all locations – whether due to accidental events, or to long term behavioural patterns. Their effects are seen to be identical if support is lacking. The spiral of debt can reach levels of ten times monthly rent in a short space of time. All social housing landlords denounce the “free rider” behaviour of some tenants who have clearly decided as soon as they move in that they will not pay because eviction procedures are long drawn out, or because Banque de France procedures for excessive debt may mean that the debt will then be written off. The result is sanctions that are deferred in time or

inappropriate. This gives rise to a belief in the unacceptably high level of social support granted to certain tenants, and that the “French system” is on the one hand too lax, and on the other insufficiently generous in the benefits it grants to those who are in work.

Hence, for all the above reasons, it becomes difficult to deploy the technical/technological innovations required to remedy the current poor state of the building stock and raise standards as required by the Authorities. Everyone is committed to the energy transition, but the extent to which innovative approaches are put into practice varies from one landlord to another. Although, for some, building new accommodation respects BPOS standards, building management and upgrading to new energy saving standards raises two questions. The first is what should be given top priority? The deployment of building renovation techniques that are familiar to management and correctly performed includes forced air ventilation, insulation and heating. But what of costly innovative work on appliances or installations which risk being misused by tenants? The second question is that of landlords’ strategic choices. Should innovation be introduced for the benefit of the small number of tenants able to pay the cost in higher rents over time, or should innovation have as its main aim to mitigate the effects of inequalities, whether in income or in other forms?

In order to combine innovative techniques, make savings on energy to abate emissions, improve tenant home comfort and still achieve financial equilibrium, the three landlords put different demands on the competent administrations when it comes to the energy field as well as on the construction sector, which should (they say) make procedures easier to execute, offer better warranties, and additional financial support. In the eyes of landlords, it is also urgent to rethink the difficult if not irresolvable question of how far the costs of renovation can be passed on to tenants over time. New financial models need to be developed to take into account other factors such as the terms of leases, levels of comfort, and respect by tenant and landlord of the rights and duties of each.

The last factual observation relates to the deepening difference between Paris and the provinces in regard to collective action. The capital has financial resources available that are incommensurably higher than Hauts de France or Nancy, and for this reason, social action is a responsibility of the municipality in Paris. Landlords draw up few or no contracts with outside social services or support providers. It is quite different for landlords in the provinces, who sometimes in-source the management of social support, or, on other occasions, outsource it in different forms. Hence the third difference which arises between capital and provinces, that of collective action. There is far richer collective action in the provinces, if the term is understood to include the number of different contracts signed for the purposes of the management of the social needs of tenants facing difficulties (arrears, or physical disability more generally).

	Paris	North	Nancy
Definition of energy poverty	Energy poverty, means having to improve energy performance in building Rental arrears aren't enough of a measure of energy poverty	When tenants can't pay, they turn down the temperature and pay that way. Faced with the choice, they'll prefer to not pay for heating. People don't have the financial resources to heat home properly	Energy poverty is a factor that worsens difficulties and accentuates deprivation.
Measurement of energy poverty	No indicator although mention is made of 10% share of income spent on energy. Similarly, room heating is mentioned, but everything depends on where rooms are located in building.	Only indicator = rental arrears. The profile of a tenant in arrears isn't a good way of looking at things What's needed is to support tenants in their life circumstances. Investment along these lines would result in more attractive housing, fewer arrears and less damage to property.	10% share of income spent on energy is a known measure, but not used, as it doesn't work in practice. A 25% share of income spent on rent and service charges should be the maximum acceptable, if households
Discourse of landlord	The real question is truly whether or not people are warm. There are standards of warmth in our contracts. Tenants pressure us saying that 19° is too cold. The heating companies provide 20°. But how this feels to tenants is difficult to assess. Even at 20°, in the evening when you're not doing anything and in the day, you feel cold. When there's criticism raised, it's the cold. Some tenants want more warmth and are ready to pay.	We're looking for technical improvements, better energy performance in building and looking forward to future rules. Thought is being given to passive building, where the building recovers otherwise lost heat and redistributes it. The aim is to offer better quality housing and more protection from rental arrears. Renovation costs are €55,000 per housing unit.	Decent accommodation, decent services, enough warmth, lower service charges, energy poverty all seen as social problems involving deprivation. Problems come to light only when there are arrears. Awareness of the importance of working on the outer fabric of thermal insulation and the heating system. Importance of social support. Preventive
Arrears	Less than 2%. Affected are salaried people who lost their jobs, fell ill or lost their partner Also employees who earn a pittance Or those on minimum social benefits. Arrears go from one month late payment to €10,000 / €15,000 arrears over time, there are no solutions. Average arrears range from €350 to €8,000 (some-times more).	More than 5% in some cases Aggregate arrears = €14-15 million. More than 6,000 in arrears in 33,000 housing units. 4,000 and 4,500 amicable resolutions (with support for one year but in reality 3-4 months); after 12 months, legal action in the courts for eviction (around 1,500). Excessive debt is a major problem. 2016 = €1.5 million losses (unrecoverable €900,000 of personal debt written off and €600,000 because no court action admissible)	Considerably increasing. Several types of behaviours. There's occasional late payment and chronic arrears in general, people want to pay and when they don't pay, it's because they can't pay. This is an actual trend, particularly with divorced fathers, who want a big apartment to welcome their children at weekends and holidays, but can't pay the rent and expenses. Others just find it difficult to cover all expenses, but make efforts, find solutions and organise arrangements to pay down their debts. And as always a small group not wanting to pay at all. Problems of arrears also linked to overpayments of CAF housing benefits.
Behavioural patterns towards energy	No visibility on this kind of behaviour Energy poverty is not a problem, but deprivation and low revenues are.	Overall people who are responsible deal with things not too badly and in all cases much better than people who let themselves go. A whole lot of tenants are responsible, if only in terms of keeping their homes clean and well-maintained. A younger section, jobless, is characteristically <i>laisser-aller</i> . A fringe of the population says "I won't pay for my rent or electricity. The same people who say "I won't go to work." This behaviour undermines everything. People ask why there are no sanctions. You don't any rewards for doing the right thing, but if the worst comes to the worst, some people get the rewards of doing the wrong thing. They act the same way with fuel bills. Even in the first months, some tenants "forget" to pay their rent. They can be young or old. The time it takes to take them to court, it's too late to evict them, because of the winter months and they have a year and a half without paying.	Arrears are going up (and so are other expenses). There's generally higher levels of debt. Landlords can see the spending on heating, when collective heating is paid for. But when heating is private, the contract is with an energy supplier (as with electricity), and landlords are completely without information. Generally, when people have arrears, they've also run up debt in other fields, including heating and lighting The invisible people Those who have occasional or chronic difficulties and who try hard to cope. Those who have lost contact with reality, or are simply unaware of the impact of their behaviours. Poor payers in poor faith amount to approx. 5%.

	Paris	North	Nancy
Action on prices (bills, bringing service charges down)	<p>Lower charges for heating and gas + CO2. Analysing energy poverty, we can see if costs are excessively high. District heating and local mini-grids. Difficult to organise spending on protecting the environment (CO2 abatement) and make capital investments while respecting budget limits. Collective heating: the contracts are tightly drawn, suppliers are required to meet standards, otherwise they face penalties. Under contract they have to maintain boilers and ensure correct room temperatures. When individual heating, landlords are out of the loop. They are responsible for maintaining communal areas. But the actual bills for heating are outside landlord control, What is known is that collective heating costs occupiers less and individual heating costs more. But people want to be in control of their homes. We regularly move from private to collective heating. The difficulty is that tenants are denied personal control. And tenants can never be told with certainty that collective heating will cost them less, because the landlords don't know what they paid when heating was private.</p>	<p>The number of appliances (electronic, TV, etc.) is such that electric power is a constant expense, no matter how many improvements are made to building. With high performance housing, meetings are held with families and information given on how to achieve optimal performance on optimal use. Then 4 or 5 months later, people are called up to see whether their bills are reasonable. Other experimental approaches: monitoring project at interface with mobile phones, to check consumption. Competitions are organised with other tenants in the building, if they pay for heating privately, they are informed about target consumption levels and cost. Yes, the rebound effect does exist. As soon as there are new appliances, energy consumption rises. Similar experience with coal heating in miners' homes. The main room was heated to 25° and temperatures rose as soon as a better boiler was installed.</p>	<p>Performance contracts for boilers to improve efficiency and reduce costs. Negotiated energy prices in communal areas Negotiation of prices for materials through GIE collective procurement agency</p>
Assistance	<p>Paris: special. FSL: ceiling at €11,000 debt (others €5,000 to €6,000). Grants from department, Paris being specific.</p> <p>In addition to statutory housing benefits (APL) discretionary assistance is available in Paris (in addition to legal allowances granted under certain conditions). Financial assistance can add up to between €80 and €250 / month.</p>	<p>No direct financial aid, but support policy does mobilise assistance at departmental level, known as <i>Fonds solidarité logement</i> (housing solidarity fund). A large number of statutory forms of assistance exist, but may not be actually claimed Numerous examples of food assistance Food bank, once a month €4.50 and enough food for a month Pack of milk, coffee, sugar, fresh vegetables for rapid consumption, sometimes pork ribs, duck kebabs, milk. No alcohol (except at Christmas, alcohol-free pack) Secours Populaire charity allocates €14 per family (from 1 to 4) (and €28 for > 5) Food vouchers only in winter. Depending on size of family = €46 /month in local store, only tinned food, no alcohol, school stationery</p>	<p>FSL: taken over by Nancy Métropole. FSL: in the department: energy: highest spend €1.7 million but on the way down linked to assistance with payment of bills = energy arrears are substantial. FSL activity report: in context of PDALHPD plan. Prospects 2017: €1.6 million for energy. Housing benefits may cover whole home rent and larger families many have a landlord APL personal credit from €3-€4 to €50 per month. Social policies; different benefits available (income, family, housing) National, departmental and local programmes: "Social" energy prices i.e. lower priced electricity for the disadvantaged or energy cheques (from 2018) Financial assistance from local social centres and non-statutory help (+ charity groceries)</p>
Action on energy efficiency Heating and technical appliances	<p>Energy losses. Heat recovery from waste water, forced air ventilation, smoke extraction, and condensates from heating system (in Paris) generating new energy efficiency data. Solar photovoltaic power production works well today, although new regulations from Ministry pending at present Renewable energies: as soon as there are heat pumps, well be there installing them! Wind power is meaningless in Paris, similarly for solar power. Attempts have failed due to over high costs. Gas costs less than €35/kWh, less than expected. Also, maintenance costs are often far greater than costs saved. To ensure that solar power facilities actually work, the installation must be sound from end to end, from initial</p>	<p>Thermal innovation, RT2012 building insulation standards, all new building permits require ~ 20%, less energy spend. Momentum towards BPOS building standards, low carbon, with carbon emission assessment. Because of lower energy consumption materials, other problems are bound to arise, such as the quality of inside air. But Ministry of Health wants 30 minutes of outside air ventilation/day to avoid build up of microbes, while Housing Ministry asks people to close all doors and windows to make savings. Inside pollution is often higher than outside, due to smokers, furniture materials (once unpacked, they release harmful vapours), cleaning</p>	<p>Thermal renovation works (insulation) Forced air ducted ventilation (aka VMC) Solar panels, heat pumps: "best do the basics rather than something new without knowing the long term consequences" Change of boilers after 15 years of use Mainly gas heating BBC standards and even BBC -10% (energy) in new buildings. No desire to go to BPOS Connection to district heating (but not always suited to consumption patterns in renovated buildings</p>

	Paris	North	Nancy
Action on energy efficiency Heating and technical appliances	<p>set-up to maintenance repairs in the home. On paper it looks fine. But not in reality. The costs were passed directly on to tenants. That was a big let-down. Fortunately, gas prices fell.</p>	<p>products. The construction industry is thinking about how to reduce pollution, but the way people do things, they're big users of pollutants.</p>	<p>bâtiments rénovés).</p>
Innovation	<p>New technologies are currently being developed, but it takes 5-6 years to approve them, otherwise they can't be insured. It would be better if the Ministry of the Environment introduced more flexibility into the system. A special fund to cover "works damages" should be set up, as insurers will only insure buildings if all techniques used are approved through CSTP official channels. Registration costs for <i>Avis Technique Expérimental</i> (Experimental Technical Approval) are prohibitive at €150,000 each time. It would also be better to share premiums to insure innovations against "works-damage" incidents, it would be an incentive to industry and landlords to get involved like we are. Finally, performance calculation engines should share their results with us, without us necessarily paying.</p>	<p>Small scale tests were carried out with Bouygues and Ecole des Mines (leading educational establishment specialising in engineering) on air quality before entry and after entry. SIA partners a project with Ecole Catholique de Lille and CREGE. Analysis relates to impact of Building Information Modelling (modelling database) combined with new 3D graphics representation. The ANUER Project analyses how practices develop in the construction industry (training needs), for managers and users. The objective is to go down the road of social studies. Because of special features of mining areas, and their listing by Unesco World Heritage, renovations can only take place within the existing floor area, i.e. without adding bathrooms, kitchens or WCs in an extension, as could have been done earlier.</p>	<p>AMLI social support association is part of Batigère Group. A cross-landlord association for difficult-to-house families has been set up and will deal with other transversal issues. Max. 25% share of income spent on rent and service charge. Pilot projects for new technologies Search for cost-cutting solutions, holistic approaches,</p>
Energy Transition	<p>Software developed to measure benefits after installation of new facilities ICF is at forefront of progress. There are good results from larger public sector contractors and in the private tertiary sector. But we as landlords are still further ahead of the game. "We can get the funding." Since 2009, landlords have been under an obligation to inform and announce their plans, and then clients follow. When we request and obtain funding, we are under an obligation to use it, which is not the case when investment funding is organised in privately owned condominiums ("copropriété")</p>	<p>The laws enacted after the <i>Grenelle de l'environnement</i> makes it mandatory for all to move to C standards by 2020, which involves major thermal renovation and upgrading of properties to higher standards on social grounds (although no-one openly admits this is the case). People will find themselves in extremely difficult circumstances.</p>	<p>Essentially technical experimental work (dual flow forced air ventilation, geothermal and solar energy, Degré Bleu technology). Preferred focus on fundamentals such as energy production</p>
Social support and collective action	<p>Social support department deals with arrears and tenants in difficulty, as does the municipality and voluntary associations without contract with ICF.</p>	<p>SIA contracts with Social Security management teams for recovery of debt on a negotiated basis. Social workers are not involved. Similarly with service providers for boiler maintenance. Depending on diagnostic, a decision is taken on whether or not to support tenant (for a maximum of 12 months with a target fixed at outset, i.e. support for payment) Social fund set up in 2011 to provide additional support for these social funds. Communes have CCAS to support persons in difficulty and landlord would like the Commune to work at landlord's side and go beyond the Tenant/Landlord relationship.</p>	<p>Energy kit Coaching tenants whenever a new project is implemented Improving tenant ability to pay through social support Social workers in AMLI are charged with supporting identified tenants presenting arrears or other difficulties. Grand Nancy, municipalities, ALEC, GIE, social workers, CAF, energy suppliers work together. Social support for access to housing and permanent occupation. Measures are planned, and rely on a favourable response from tenants Cooperation with associations and housing organisations that implement social support measures</p>

	Paris	North	Nancy
Obstacles / Proposals	<p>Installers are not good. From engineering consultancy to boiler maintenance specialists, difficulties are mounting.</p> <p>As far as contractors are concerned, the representative bodies must raise this issue by ensuring greater training for heating contractors, to ensure new technologies work.</p> <p>General building contractors don't know how to deal with renewable energy, solar energy or heat pumps. They don't know how to test them. And they refuse when asked to do so, because they are absolutely devoid of any results-based tradition. Fortunately, we have specialists who know where to go for the right engineering input.</p> <p>Control systems. Those who used to know how to regulate heating in buildings to ensure less variation between hot and cold areas, don't know what to do now. In a building, some parts have more sun than others. To deal with differences in energy consumption, you need to regulate the heating ducts. With the systems installed, no-one knows how to do this any more.</p> <p>All the whiled things don't work properly, energy poverty will continue to rise.</p>	<p>Central level</p> <p>Today business plans are established with indicators that are not up to date. Rents levels are not changing and arrears are increasing.</p> <p>Landlords are at a fork in the road. They are under an obligation to house everyone and the authorities force them to adopt a policy of social support for those suffering great deprivation. This means the possibility of arrears should be taken into consideration from the outset. Landlords expect to make a profit, but profit for whom?</p> <p>Local level</p> <p>The most difficult cases are "working poor"; €1,200 there is no housing benefit, they have to pay taxes and with that cocktail, arrears appear straight away</p> <p>Landlords are not in a position to offer low rent accommodation for those people, even with the largest families of 6-7 people, or even young people starting their careers.</p> <p>Accommodation for the disabled is not up to standard and the same applies to older people.</p>	<p>Higher standards for buildings and increasing costs</p> <p>Renovation standards required by RT are a financial problem as regards thermal renovation. Renovation is not always realistic for landlords.</p> <p>Relationships are complicated with CAF organisation, there are as many answers to questions as there are CAF advisers. Cases are not followed up, there is a huge gap between national recommendations and the reality in the field.</p> <p>Laws pile up that no-one has time to apply because application decrees are still not published when a new law comes onto the statute books, often contradicting the earlier one.</p> <p>Mismatch between expected savings and actual savings when building renovation takes place + rebound effect (increase rather than reduction of energy consumption with new facilities)</p> <p>Complexity of individual metering</p> <p>Fears about future changes affecting landlord's employees. The need to become more culturally attuned to innovation (familiarisation with recommended share of income spent on energy, energy savings behaviour, etc.)</p> <p>Difficulties in mobilising tenants</p> <p>Complex relationship with political policy-makers</p> <p>Suppliers insufficiently mobilised.</p>

IV. Energy poverty. Challenges facing social housing in Europe

Comparison: Germany - Spain – England and Scotland

1. Non-homogeneous definition and measures of energy poverty

Energy poverty in Europe is generally understood as being the level of heating needed to reach a sufficient level of comfort, contrary to the definition of energy poverty given by academic Brenda Boardman (1991), who took into consideration all energy-related services. Her definition has also set a limit beyond which energy poverty occurred, i.e. when the share of income spent on energy services exceeded 10% of household income. However, the "energy poverty" concept, as such, is not even in use in all the countries covered by this study, which are England, Scotland, Germany and Spain. Unlike the United Kingdom, neither Germany nor Spain have a definition or indicator or even a dedicated public policy in the field. And when German NGOs deal with energy poverty, it is through electricity costs, rather than heating costs. In other words, energy poverty, insofar as it specifically affects social housing, is far from being objectively assessed.

Although England institutionalised the first definition of energy poverty by passing legislation in 2000, which translated into a strategy looking forward to the eradication of energy poverty by 2016, the indicator changed in the interval. The 10% share of income spent on energy was easy to use and until 2012 enabled the identification of energy poverty target groups. However, the number of energy poor has ceaselessly risen in spite of the policies implemented. For this reason, the Cameron government requested a revision of the definition. John Hills, an academic at the London School of Economics, introduced a system of measurement of energy poverty known as LIHC, based on the median level of household expenses as compared to income (Low Income High Costs). The LIHC indicator is used nowhere except in England at the present time. It gives new direction to public policies since they now target beneficiaries other than those identified by the 10% share of income spent on energy. Although the 10% indicator particularly targeted pensioners as deserving support (pensioners being one key to the conservative vote), LIHC now identifies single parent families and young people as among those most vulnerable in energy terms. According to the LIHC indicator, 2.5 million households are energy poor in England. Tenants of social housing projects managed by private social landlords report a rate of energy poverty lower than for private sector tenants more generally, at barely more than 10% for the former as against 20% for the latter. Owner-occupiers are least affected by energy poverty. In addition to changing the indicator, the Westminster government also initiated a policy move to withdraw from combating energy poverty altogether. Budget spending has been cut and no further programmes of energy efficiency are now financed out of public funds. To date, there is only one energy efficiency programme, but this is more oriented to the reduction of carbon emissions than to combating energy poverty, this being the Energy Company Obligation (ECO), financed from a tax on energy bills, whose implementation is mandatory for energy suppliers.

Scotland, however, did institutionalise the definition of energy poverty in its housing law of 2001 and adopted the measure of 10% share of income spent on energy (income before payment for housing). Accordingly, nearly 35% of Scottish households are energy poor. Scotland even introduced an extreme rate of energy poverty mainly to reflect the difficulties of paying energy bills in the rural environment. 23% of rural households are thereby considered to suffer extreme energy poverty. To drive home the difference of the Scots from the English government, Holyrood considers combating energy poverty as a political priority and is continuing to finance programmes that supplement the measures generally adopted in the UK. As part of the continuing process of devolution, the British government should transfer to Scotland responsibility for financial assistance in payment of energy bills (in 2018), under delegated powers enabling the Scottish government to target its procedures and better meet the needs of Scottish households, even though implementation can turn out to be complex.

Germany on the other hand, does not recognise any emerging energy-related problem, arguing that its social system already includes assistance in payment of electricity bills, heating and hot water for beneficiaries, which is deemed to protect them from energy vulnerability. The major German NGOs and consumer associations do not share this point of view, because increasing numbers of people come forward with situations of unmanageable debt linked among other things to energy costs. Furthermore, the system affords no protection to low income workers, nor to low income pensioners who are unable to claim any of the otherwise available assistance. Although their income is higher than assistance eligibility thresholds, it is not enough in absolute to give them protection, and in economic and energy terms they remain vulnerable. The issue is almost undiscussed in Germany, and when it is, does not relate to heating expenses but to spending on electric power. This is because energy bills have “gone through the roof” since market liberalisation and the energy transition. The only available indicator relates to the number of disconnections in the home, which remain at a very low level and affect 0.75% of German consumers. However, alternative studies show that between 10 and 13.8% of German households might be affected by a form of energy poverty.

Spain for its part also does not define energy poverty. However, in Catalonia, since the global financial crisis, the issue of energy poverty has been on the agenda, largely under the influence of collective and non-governmental actors. But lobbying, for all its efforts, has not yet made it a big enough issue for institutional recognition. Nor is energy poverty seen as a problem specific to the social housing sector. Even so, those working in social housing deal with energy poverty indirectly through the development of instruments whose goal is to improve “modes of life”. Rather than envisage energy poverty as an aspect of deprivation, it is dealt with through the drive to improve thermal comfort. In Catalonia, between 18% and 11% of households are thought to be affected, i.e. between 1.2 million and 800,000 people. An aggravating risk factor is the poor quality of housing in Spain, as the majority of Catalane homes are classed between E and G.

	Aberdeen	Berlin	Barcelona	London
Definition of energy poverty	Yes, share of income spent on energy 10% used by government, including thinking about further development of definition. Share of income spent on energy 20% for extreme energy poverty	No, no definition by government, attempts by NGOs (energy poverty in connection with poverty more generally and a process of social disqualification), landlords see main problems as rental arrears and reducing costs.	No definition of energy poverty.	Legal definition since 2000 on the basis of share of income spent on energy 10%. Since 2012 introduction of Low Income High Cost LIHC indicator for definition of public policy targets.
Measurement of energy poverty	34, 9% of Scottish population in 2014, 9% in extreme energy poverty. 42% of tenants of social housing are energy poor in Aberdeen	Lack of statistical data. 351,802 disconnections in 2014 (0.75% of all customers, but increasing), 2,219 disconnections by Gasag in Berlin, no data from other energy suppliers.	17% of Catalan population in 2016 (share of income spent on energy >10%), not estimated in social housing sector.	According to new LIHC indicator, nearly 11% of English households suffered energy poverty, i.e. 2.5 million households in 2015.

2. Tenant constraints

Constraints weighing down on tenants are relatively similar everywhere in Europe. In all countries concerned, tenants are confronted with a scissor-effect between rising energy prices and rising rents, which increasingly encroach upon budgets and lead to flat, if not declining, disposable income.

Beyond this generally true observation, energy poverty is a reflection of inequality, which is as much structural as it is social and cultural in the countries under consideration and demonstrates the absence of alternatives for households in the various forms of spending available to them (choice of accommodation, equipment, etc.). The only alternative is to set priorities on what to pay for.

Inequalities in access to housing are a first factor of energy vulnerability. This is particularly the case in choice of housing. The cut in public subsidies for building social housing, both in Germany and in the United Kingdom, has led to a big shortfall in availability, which is far from meeting rising demand. Households have no other choice than to go to more or less expensive private rented accommodation, often of poor quality, where they will likely be hit by extremely high energy bills. Finally, households that do manage to find social housing are “better off” insofar as their accommodation is of better quality with less need for heating. The housing market is increasingly polarised into social housing concentrated in the deprived areas of cities. The extreme cases of housing difficulties were in Barcelona when the 2008 global financial crisis took the form of an unprecedented housing shortage. Priority was then given to the “right to housing” which translated into the reallocation of private residential housing to meet broader housing needs and the mandatory requirement to “capture” new accommodation in the private sector.

Energy market regulation is another factor of household inequality, in that it can skew access to energy services and people’s enjoyment of decent levels of comfort in the home. Germany has no regulations to protect vulnerable consumers. Households in debt find it very difficult to change energy supplier, and are often unavoidably connected to the highest cost local provider. There is no ban on disconnections during the cold winter months and they take place at the discretion of the power supplier, based on the principle of “decision suited to individual situation.” In the United Kingdom, the Regulator accompanied market deregulation with provisions for protection of vulnerable consumers. Disconnections are not widespread in the UK as the way to deal with household debt is often based on the installation of a prepayment meter. Some households (without any arrears) can even choose to get a prepayment meter so as to be better able to cope with limited financial resources. However, although the system does manage and prevent fuel debt, it suffers from a fundamental injustice, in that the households that have prepayment meters pay far higher prices than households paying their energy bills monthly. The most vulnerable pay the highest prices for gas and electricity. In Spain, market liberalisation was not immediately associated with consumer protection measures, and such provisions only came in during 2010, in the wake of European Directive 2009/72/EC, based on much criticized criteria of age and size of household, rather than of income. Furthermore, market liberalisation and

the introduction of an energy transition policy pushed prices up, which affected tenants of social housing disproportionately because of their low income and poor quality housing.

In addition to these structural inequalities, there are social and economic inequalities. Disposable income after payment of rent being often extremely limited, households are finding it increasingly difficult to pay for unavoidable expenditures, such as energy. Social housing landlords are not well informed about individual household needs which depend on a number of factors, among which are state of health, occupancy levels within the accommodation, number of children in household, etc. Such factors are all the more difficult to take into consideration as comfort levels and the experience of cold are a matter of personal assessment. The level and quality of household appliances is also an aggravating factor. Some households, because they are unable to buy better quality and lower energy heating appliances, prefer to buy cheaper equipment and if necessary pay more for energy, all the while keeping down levels of consumption, even if it means affecting their health and comfort. Each family has, therefore, its own order of priority of expenditures, depending on needs, ability to pay and personal values. Several tenants said they had experienced difficulties and had to choose between “heating or eating”.

Faced with these constraints, tenants adopt differing strategies. They may go so far as to do everything they can to pay off their bills, even if this means deprivation elsewhere, in order to remain below the radar as far as government administrations and landlords are concerned. In most cases, tenants introduce or adopt more or less sustainable coping strategies with greater or lesser effectiveness to reduce their bills. Most declare they have introduced small “quick fixes” to cut back on gas or electricity use and be in a situation to pay bills. On the other hand, in some cases, households are in such dire straits socially, economically or healthwise, that they lose contact with reality and “let things go”. Finally in some, and rarer, cases, there is deliberate choice not to pay, but this can lead to disconnection. In such situations, arrears for payment of energy bills are often combined with other arrears, such as rent, which in extreme cases can lead to eviction.

	Aberdeen	Berlin	Barcelona	London
Arrears	3.3% in 2012 but down Objective characteristics: social and economic conditions, household equipment, occupancy (number in household), type of household, modes of bill payment, rise in energy prices, quality of accommodation. Subjective characteristics: Need for heat is highly personal: experience of cold depends on individuals. Importance of life values and of the relationship to energy. Strategies to “keep below the radar” (unseen by social services, landlord, energy and other providers) = do not claim rights, pay all bills no matter the discomfort, automatic disconnection if pre-payment meter (live with no light or heating if cannot pay). Coping strategy: “go without” or “eat or heat” For some persons coping means voluntary choice of pre-payment meter, for others it means assuming debt or	For GdW 2.1% down Objective characteristics: regulation of energy market, rising electricity prices, social and economic conditions, household equipment and appliances: households with gas heating, hot water and cooking are better provided for, as well as North versus South-facing apartments and quality and comfort of interiors. Subjective characteristics: cultural background and personal relationship with energy, experience of cold depends on individuals. Holding back on heating, arrears and disconnections for failure to pay are appearing. Chronic debt to be distinguished from occasional debt linked to one-off annual power adjustment bill. Some tenants have saved all they can, including by cutting down on personal comfort. Others are not prepared to make	Not measured Objective characteristics: rise in energy prices, aging of social housing stock, in particular when built between 1950 and 1970 (leaks, draughts, general run-down condition, mould, etc.), over and above reduction of “Welfare State” social security cover. Not properly accounted for but large number of illegal connections to grid and considerable numbers of arrears. Home environment poorly equipped: few heating appliances and virtually no central heating. Extensive recourse to under-consumption, poor information on energy pricing and on prices best suited to vulnerable households. Subjective characteristics: special relationship to cold in countries of Southern Europe, recent discovery of thermal discomfort by social housing landlords.	Entre 2 et 3% Objective characteristics: a large percentage of households spend more than 10% of revenues on energy without knowing it, very poor district, high levels of unemployment, extensive use of prepayment meters (PPM). Subjective characteristics: cold mostly experienced by older population, but at all ages choices are made whether or not to heat, consumers on PPM automatically disconnect when energy cannot be paid for “working poor” Increasing inequalities in London Exchange of “advice” between tenants on how to save energy and economise on everything.
Behavioural patterns towards energy	other obligations if in arrears. Those equipped with gas, collective heating or heat pump are better provided for than those with electric or individual heating. Problems of ineligibility for financial assistance (working in low paid jobs). Job insecurity and declining income Food banks increasingly have to check whether claimants are in a position to cook warm food, in order to hand out the most suitable products.	savings. Others are willing to save but only if it has no impact on their daily lives. Others are ready to save energy if the savings go to pay for improved amenities. Higher energy prices exacerbate income gaps, certain districts are becoming polarised. Specific problem of “working poor” not eligible for social benefits. Contrary to received opinion, the most deprived spend less than those with higher disposable income.	Consumption in vulnerable households is considerably curtailed, although there is little leeway for it; however, there is acceptance of practical day to day training on how to keep consumption down. Well equipped households.	

3. Representations of landlords and social innovation

The representation by landlords of energy poverty varies depending on national histories of social housing, status of landlord, systems of regulation of the energy market and social policy.

In England, landlord Poplar HARCA has the dual status of “charity” and Public Benefit Entity working on a non-profit basis. It has taken on a role going beyond pure building of social housing and housing management, insofar as its objective is to combat poverty in the community. To achieve this, Poplar HARCA set up an internal department known as Communities and Neighbourhoods (CaN) with responsibility for leadership and awareness raising in the local district. It positions itself as a force for social and economic inclusion at the local level. In this context, energy poverty is one entry point among others, whereby landlords provide help to local people – and not just their own tenants – when it comes to reducing energy bills and freeing up income for other forms of expenditure. These are more especially projects that develop social connectivity, training people in energy advisory skills, and offering them new prospects of employment.

The Scottish landlord Grampian Housing Association has charitable status and placed combating energy poverty at the heart of a strategy to combat the social injustice that the energy market has produced, particularly so for the poorer sections of the population. Its technical action in the housing field (thermal renovation, introduction of renewable energy systems for heating and lighting, research on energy storage), is built around a mission of multiple support to tenants: 1.) assistance in improving availability of disposable income through action of an internal team dedicated to tenants’ income optimisation 2.) Advice to tenants by financial and energy advisers to improve tenant available income and optimising use of new and renewable energy appliances, and thereby reducing energy bills 3.) Finally, the landlord, taking its narrative on energy-related social justice to its logical conclusion, teamed up with six other social landlords to set up a “not-for profit energy supplier” known as *Our Power*. *Our Power* seeks to offer cheaper than market prices for prepayment meters. Although the consequence of market liberalisation is rising electricity prices and abusive practices by many energy providers, it also enables new entrants such as *Our Power*, supported by a group of landlords and local authorities, to develop a new tariffing policy in a highly competitive market.

In England and in Scotland, landlords have going beyond the normal duties of the purely residential sector, to fill the gaps left by the State when it comes to protecting the poorest in the population—in a context of deregulation and withdrawal by the British government from its previous obligations.

Germany and Spain each present very different approaches. As mentioned earlier, energy poverty is not recognised in either country. Hence German landlords, whose public utility mission was abrogated in 1990, tend to focus on energy, but from a more technical than social point of view. They put their money, above all, on quality of accommodation and thermal refurbishment. They then seek to reduce costs by means of regular benchmarking

of energy prices in order to take advantage of the competitive market to regularly change contracts or even energy providers, and hence reduce property management charges in communal areas. Attempts are made at collective purchase of energy to supply power to communal areas and to office space. Support for tenants in energy terms takes the form of advice on energy saving, based mainly on the regular publication of leaflets and written information. Some landlords, such as *Gesobau*, a Berlin municipal company, have cooperated with the voluntary association *Caritas* to organise home visits on energy savings, to support tenants moving into social housing equipped with the most modern energy technology. This, however, is a temporary project, whose effectiveness was challenged on grounds of insufficient commitment from the teams and tenants. *Gesobau* and *Gewobag*, the two most important municipal Berlin housing operators, have also each set up their own foundation to provide financial support to mainly social and cultural projects in the urban districts where they operate.

In Spain, landlords have pointed out the difficulty of bringing down tenants’ energy consumption levels of tenants. For this reason, they seek rather to improve thermal comfort and the health of tenants by investing in housing where temperature is increasingly governed by passive technologies “Mediterranean style,” keeping accommodation cool in summer and warm in winter. Even so, no social support exercises are directly performed by landlords. Nevertheless, tenants may benefit from the work of a social NGO which sets up partnerships. Energy advisers have been introduced; although not across the board. In areas of dense social housing, “signalling points” of energy poverty have been set up by local actors in order to give advice.

	Aberdeen	Berlin	Barcelona	London
Landlord narrative	Social injustice, well-being, thermal comfort at affordable price	No narrative on energy poverty, importance of energy management in buildings, lower charges and better management of arrears	Focus on ensuring thermal comfort, limiting energy consumption in highly deprived social environment	Looking after tenant interests while also combating energy poverty on the understanding this is combating poverty in general, by creating opportunities for training and employment
Status of landlord	Charity, not-for-profit	Private, cooperative or municipal undertakings	Municipal housing agency in Barcelona and in one Catalan agency	Charity, non profit-making + status as enterprise
Social support and collaborative action	Energy advisers Home visits: advice on energy use, dealing with irregularities, intermediation between tenants and energy providers, incentive to change provider for better deal. Team working to improve tenants' ability to pay (income optimisation). Close cooperation with other associations (REAP), City of Aberdeen and municipalities, local and regional NGOs, energy and other providers, social services	Regular information but no specific support. Energy advice provided for by Caritas and Verbraucherzentrale, possibly by debt management organisations, but no specific cooperation with social housing landlords Social housing providers, municipality, suppliers and service providers, associations such as Caritas for Stromsparherck but cooperation is partial and patchy Gesobau and Gewobag set up foundations to fund projects in the field of art, sport, social events, etc. in the local community	No projects specifically target to the social housing stock fabric, but vulnerable households can benefit from support thanks to partnerships with NGOs working on energy learning curves. - Set up "Energy Poverty Points to Look Out For" in the areas of the community where advice is dispensed from. - Occasional individual support from energy advisers.	Training and job search / employability team for local people. Dedicated landlord service to provide events and animation in the local community, keep watch or good-neighbourly relations and promote social and professional integration. Local events organisation in community centres Development of various energy projects (advice, energy saving): LEAP, Energy champions, Energy Best Deal, Fuelling Connections, the Loop Project: involvement of local community either by knocking on doors or by word of mouth. Cooperation with numerous partners on all aspects of social cohesion and inner-city development.

4. Difficult balance between constraint and innovation

By examining the way in which social housing landlords address energy poverty, the study showed that landlords' ability to diversify their missions depended on their history and modes of political, economic and social regulation in the countries concerned. Whereas new missions tended to increase in number and become more diversified, in all countries they collided with contradictory obligations, among them goals set in the interests of economic, technical or social efficaciousness, and of political efficacy.

4.1 Increasingly constraining standards

In Germany and the United Kingdom, standards of enhanced energy efficiency have been made mandatory for landlords while at the same time, there is insufficient money made available through financial assistance programme to cover costs. Landlords must invest their own funds. Passing on expenses to tenants is possible (but limited to 11% in Germany as a whole but to 6% in Berlin, while rents in the UK are capped under regulations).

- **Higher standards vs. financial capacity to pay for improvements:** In Germany and the UK, energy efficiency targets in the framework of their respective national energy transition policies are essentially set for, and intended to be achieved by, the social housing sector. They weigh down on landlords' finances, whereas the private rental market, which is not so easy to convince, is spared. In both countries, successful reductions of carbon emissions in the housing field depend mainly on the action of social housing landlords. In Spain, the major thermal renovation programmes are financed by European structural funds.

- **Higher standards vs quality of service provision:** Continuation of the asset upgrade projects depends on there being service providers of sufficient quality, which is not always the case. The Scottish landlord interviewed for example complained that to obtain financial assistance under the British ECO programme, it had to take on service providers approved by the sources of finance (who are the energy supply companies), a business model at variance with the terms and conditions of public procurement that the landlord must comply with. Such a model invalidates the warranties covering poor workmanship and tenant dissatisfaction with the quality of work.

- **Construction vs. renovation vs. affordable rents:** Whereas most landlords must go on building new social housing to mitigate the housing crisis in cities of severe affordable housing shortage (i.e. in the cities studied) and also make their contribution to thermal renovation, they are also required to keep rents at affordable levels for increasingly vulnerable target populations. In this context, the arrival of new waves of refugees is a major challenge facing German housing companies.

- **Private heating charges: individual responsibility versus solidarity.** The transposition of the European directive on the introduction of individual meters into

national legislation requires landlords introduce such metering in the place of billing tenants on a flat-rate basis. While individual metering places the responsibility for the use of and payment for power on individual tenants, a number of issues arise. In Scotland the not-for-profit district heating network AH&P was set up by the city of Aberdeen to provide affordable low carbon heating to the city's social housing sector. It developed a business model favourable to tenants in the form of flat rate charges for heating. The introduction of individual meters would call into question the business model of this company which reduced tenants' heating bills on average between 25% and 45%. In Germany, landlords believe that the cost of individual metering, estimated at €400 million, will be passed on to tenants, but will not be offset by the potential for energy savings. Individual metering for heat raises the old debate between personal responsibility as against solidarity and between the expectation of change in behaviour patterns as against whether the expected savings materialise in reality.

- **Energy savings: priority to exemplarity or reliance on mass solutions?** All the landlords surveyed said that investments in thermal renovation do not systematically translate into energy savings. For this reason, Spanish landlords changed their narrative. Instead of targeting energy savings, their goal became rather to improve tenant comfort levels and health. The theoretical savings calculated by technical consultancies are often illusory, because contradicted by tenant actual behaviour. Not only is there the rebound effect, but German opinion is that the initial basis of calculation is not a sound representation of the behaviour patterns of the most deprived. The basis of theories of potential savings is a level of energy consumption higher than the reality for vulnerable households, as they generally try to keep their heating costs down. Consequently there is no leeway for further reduction in energy use on their part. The costs of renovation are passed on into higher rents, but heating and lighting bills do not go down accordingly. Hence landlords need to prioritize their spending. Should they implement less costly measures, so that the mass of properties are raised to minimum standards of comfort, while rents remain affordable? Should they on the contrary prefer exemplary solutions that address the needs of a minority of tenants only, who can pay more for a better service, which risks increasing inequalities between tenants? Should the priority be buildings whose fabric upgrades or other improvements are easiest, or should they prioritize those where the need for renovation is greatest? What to do about "hard-to-treat" housing stock? Tenants are often dissatisfied when the works that are meant to improve comfort levels simply result in higher rents. In extreme cases, this can be an incentive for them to move out into less energy efficient but lower rent lodgings. Although in the longer term, the merits of such choices must be debated, in the short term, tenants feel they are better able to make savings themselves (through coping strategies) than they are able to cope with rising levels of rent, which are forced upon them.

4.2 One way forward: innovation

As actors in the energy transition, landlords are required to innovate, notably by seeking out renewable energy solutions. But here they are confronted with uncertainty and fragmentation of regulations and funding.

In England, a few solar panels have been set up in some properties, but the reduction in central government support has put an end to such initiatives. In Scotland the social landlord fitted solar panels in some properties and passed on the benefit to tenants in the shape of lower priced electricity, thanks to a contract with the solar panel installer. However this was part of a British ("nationwide") programme which was brought to end before all the planned properties could be upgraded. The outcome was even greater inequality, between those tenants with lower cost electricity and the rest. There is now thought being given to a "mini-grid" system to supply lower cost power to properties nearby which did not benefit from the solar PV programme. Heat storage systems are also being tested with Sunamp to optimise heat consumption and reduce tenant bills.

In Germany, the rationale of the energy transition was conceived as a matter for property owners only, and tenants were kept "out of the loop." To remedy this, the government introduced a new law to allow landlords to set up their own solar panels for the benefit of their tenants. However, this changes the business model and responsibilities of landlords, causing them also to lose a number of tax breaks. To get round this, *Gewobag* set up an energy supply subsidiary *Gewobag ED*. German landlords in Berlin are also working closely with the municipal power company to develop combined heat and power systems. They are increasingly giving thought to upgrading by introducing renewable energies and higher building standards to reduce heat losses at the district-wide level, and also take into consideration issues such as mobility. The set-up of an extensive cooperative venture involving all the players concerned would be better able to identify collective urban solutions.

To make its contribution to reducing tenants' energy bills, the Catalan social housing sector decided to build the first *Passivhaus* containing 44 units of accommodating, this being a passive energy conservation construction technique suited to Mediterranean conditions of warm winters and hot summers.

	Aberdeen	Berlin	Barcelona	London
	<p>Contradictory obligations: short versus long term, rising demands for quality housing standards but less finance at national level</p> <p>Bureaucracy: Problem of service provider selection under the ECO programme, with risk of poor workmanship and tenant dissatisfaction. Ever stricter standards imposed by the Scottish government: HEEPS (C class), required thickness of insulation. Constantly rising standards demanded.</p> <p>Finance: Problems of uncertain and fragmented sources of finance for energy poverty programmes. Financial problems of thermal renovation for “hard to treat” housing stock. Reform: Universal Credit scheme raises the risk of rental arrears</p> <p>Collective action: no guarantee of coordination with the municipality, lack of coordinated approach over time at government level</p> <p>Mobilisation: Difficult to convince tenants to accept works in the home and take action on energy savings advice</p>	<p>Contradictory obligations: standards, costs and targets for social housing, no priorities at government level</p> <p>Finance: High standards of KfW, less in combating energy poverty than for implementation of a climate policy = difficult to engage works without pushing up rents. Need for more flexible finance. 11% limit on cost of works passed on to tenants, 6% limit in Berlin = risk of tenant departures and of social polarisation + municipality’s determination to carry out works without adverse effect on rents. Wholly impossible, according to the landlords.</p> <p>Bureaucracy: No consideration for the tax issues arising with implementation of Mieterstrom (renewable power for tenants). Energy efficiency regulation EnEV: rising requirement for energy performance, gap between expected and actual savings, law ineffectual in operation</p> <p>Collective action: lack of cooperation and of coordinated approach by landlords and local actors, lack of shared diagnostic</p>	<p>Finance: high levels of investment in refurbishment, the most ambitious projects being those financed by European funds.</p> <p>Legal aspects: social housing landlords need agreement of electricity distributors to introduce comprehensive approach to metering.</p> <p>Proposals: invest in refurbishment & transformation into passive energy buildings</p>	<p>Contradictory obligations: Withdrawal of Central Government support, drop in financial assistance at same time as higher (and costlier) standards become mandatory and rents are capped</p> <p>Finance: discontinuous project financing, uncertainties and complexities of Universal Credit (single payer for all social benefits) and rising risk of rental arrears. Uncertainties about financing from European source due to Brexit (ESF for training and employment team)</p> <p>Social: growing poverty and inequality</p> <p>Initiative: landlord positioning as a force for social and economic integration in the local community</p>
<p>Action on energy efficiency Thermal renovation and Heating technical facilities</p>	<p>Thermal renovation works (insulation) Monitoring heating equipment (introduction of heat pumps) + hot water heating. Negotiation to connect to district heating. Improved insulation of the building outer fabric to reduce energy bills albeit raising the risk of higher rents Increasingly demanding mandatory standards set by Scottish government</p>	<p>Thermal renovation works at building and local district level (insulation, heating) Monitoring heating systems and increasing deployment of mini combined heat and power systems. Rebound effect Difficult to calculate actual savings as compared to expected (rebound effects) German government laying down increasingly stringent standards</p>	<p>Confirmed impossibility of generating reduction in occupier consumption. Paradigm change towards increase in comfort levels. Works on passive insulation in social housing roofs and walls, including strategy to minimise interventions in homes. In the words of the technical director of Barcelona’s social housing organisation: “We need fewer highly efficient gadgets, because they are so complex and costly to maintain.”</p>	<p>Insulation: upgrades in 70% of buildings and for all buildings with cavity walls. Difficult to add new insulation to solid walls Basically individual or collective gas heating, some district heating Landlords have until 2025 to upgrade to C Label.</p>

Aberdeen	Berlin	Barcelona	London
<p>Landlord action on the three factors of energy poverty: income levels, building fabric, energy prices</p> <p>Technical: Cooperative work with Sunamp for installation of heat storage systems in social housing.</p> <p>Prices and collective action: Socially guided enterprise set up to provide electricity at prices 7-8% less than the Big 6 for tenants with PPM + supply of green power to tenants who pay taxes without being able to benefit from the energy transition</p> <p>Support: New positions created for energy advisers + mobilisation around energy-linked events, energy savings initiatives (school, tenants' meetings) + all-inclusive approach to problems</p>	<p>Organisational: Creation of landlord's subsidiary Gewobag ED to manage energy services including the introduction of energy efficiency facilities, heating and solar panels for tenants (Mieterstrom).</p> <p>Creation of foundation by Gesobau and Gewobag to organise social and cultural projects</p> <p>Prices: benchmarking and negotiating collective purchase of bulk power</p> <p>Change of scale: Refurbishment increasingly envisaged at district level</p>	<p>Experimentation: Construction of the first <i>Passivhaus</i> in a Mediterranean environment, suited to warm winters and hot summers (44 units).</p>	<p>Technical: solar panels</p> <p>Organisational: Creation of CaN team dedicated to residents' well-being and to community life (60 full time equivalent staff)</p> <p>Social: community centres for community action, training and employment team focusing on return to employment, energy poverty project as start of journey towards return to employment</p> <p>Collective action: very active and inspirational for a large number of local organisations dealing with a range of problems faced by residents, including health care issues.</p>
Innovations			

V. Summaries of monographs Paris, its Suburbs and Les Hauts de France Region, North-East Nancy Metz, London, Aberdeen, Berlin, Barcelona

1. The French cases

Summary Part 1

Social Housing. The challenges of energy and energy poverty. Paris and Les Hauts de France Region

Energy poverty lies at point where a number of conflicting constraints burdening the landlord and tenants criss-cross. These obligations are:

On the one hand, statutory duties (as laid down by plans for mutually agreed action, the outcome of the *Grenelle de l'environnement* consultative process in particular);
Condition of buildings, of their appliances, equipment, amenities and facilities, and the financial sums invested or to be invested;
and Social action

On the other hand, occupier personal perceptions of levels of comfort, degrees of cold
Personal ability of tenants to pay rent,
Deficient knowledge or understanding of the real costs of certain forms of behaviour (overspending of personal income, excessive and/or unnecessary consumption of energy).

The actors involved in social housing in its relation to energy poverty, broadly fall into 4 categories:

Landlords, for whom energy poverty is first and foremost a technical, economic and financial issue, involving maintenance of properties, energy efficiency, meeting energy standards and obligations, cost of investment in properties and tenants' partial contribution to costs, including also oversight of the landlords' contractors, sub-contractors and service providers. The challenge is also social, as landlords must support tenants in the performance of their duties (i.e. when first moving into accommodation, how to use the facilities and the obligation to pay for them, as well as their upkeep).

For tenants, energy poverty means attaining (or not) levels of personal comfort without paying higher rent or other costs, and demanding the landlord renovate properties to standard.

Voluntary and charitable associations have a social viewpoint whereby energy poverty may indicate broader deprivation, so extreme as to compromise an individuals' ability to meet family, professional, social and political obligations.

The State's responsibilities cross-cut all the above, in that it lays constraints and duties on landlords, provides varied forms of financial assistance to all involved and finally sets down the social regulations that form part of the government's framework of law.

A closer look at the interactions between these four actors enables:

- first, understanding how profoundly the landlord's business approach has now changed, since faced with increasingly contradictory obligations (economic vs. social; improvement of standards on a mass but incremental basis vs. more rigorous raising of standards for a few, etc.).
- second, insistence on the need for a new financial model taking into account not just building renovation but impaired ability to pay rent by tenants whose poverty is in many cases worsening.
- finally, the need to update the forms of collective action organised by landlords thereby involving partners from the public sector, private sector and the associations.

Given the above, the question arises of how far does the landlord's social responsibility extend? Certainly the landlord has a duty to provide accommodation with adequate standards of heating to low income tenants, and this duty survives irrespective of the conflicting obligations laid upon landlords in both public and private sector. But is the landlord responsible for social action? How can it or should it respond to the various socially disruptive phenomena associated with energy poverty, but with which the landlord has no direct connection? The questions raised are threefold. The first involves the tenants and their education extending to the rights and obligations that are (or should be) the basis of the contract between landlord and tenant. The second question is that of Central Government's withdrawal from social issues. In many cases, the passing on of costs by Government to the landlord appears very like a shifting of Central Government's burden of responsibility. Lastly, the question arises of how to handle the new populations which landlords will soon be called upon to deal with.

In all three cases, the question is raised of the landlord's social intervention, i.e. the margins of manoeuvre at its disposal, given that there is good reason to believe that the pressures both from Central Government and from society itself, upon landlords to take action, will increase (and not reduce).

This report is divided into 6 parts

The first part is on technological innovation as it affects building insulation. The issue is one of combating energy poverty. It covers both the legislation inspired by the *Grenelle de l'environnement* consultative process and purely technical innovations concerning the quality of the stock of rental housing. This in turn raises the issue of the relationship with service providers and their ability to perform work to required specifications, which further raises the question of Central Government's administrative services and of how well its staff are trained in supporting and monitoring the energy transition.

The second part deals with tenants and initially classifies the profiles of those likely to be affected by energy poverty. It goes on to review the system of public financial aids and finally deals with arrears. These are so many indicators that will shed light on the feedback from tenants when questioned about their experience of the cold (see later chapters).

The third part, setting aside the dimension of thermal innovation and tenants' ability to pay, examines the profiles of those experiencing cold in their homes. This part seeks to define the sensation of cold, as affected by the nature of the building fabric. The distinction is made between the housing block and the private house (whether or not refurbished), and between

collectively-billed and individually-metered heating.

The fourth part, based on the above indicators, looks at a number of portraits of the energy poor living in the Hauts de France Region, most of them in private houses, most not renovated. The "raw" transcripts of interviews are organised around four data headings, namely income, expenditures, state of building fabric, and sensation of cold. The transcripts are occasionally supplemented by considerations on the immediate environment.

The fifth part looks more closely at tenants interviewed in Paris. The report's organisation focuses, not on the income and expenditure issues raised earlier, but on what we believe is the special feature of this type of study, namely the overwhelming feeling of victimisation felt by the people we interviewed, and on the fact that their feeling of living in a community is jeopardized by anti-social behaviour of all kinds.

The sixth part deals with the collective action undertaken by public and private actors and with social action. The aspect of the "social support" required of the landlord raises the new issue of landlords' being confronted with a social problem and not simply housing matters. The concern is not only how to house moderate or even low income persons but how to provide them with adequate support throughout their life-times, among other things by rehousing them or paying their rental expenses.

The seventh part illustrates this partnership with the associations by reporting on the activities of three associations differentiated by size and consequently by the manner in which they provide support.

The final recommendations cover the rights and duties of each party; the role expected of the authorities; the relationship with public assistance services and public supervisory bodies; education to promote the appropriate civic behaviour; and the training of the landlord's suppliers and service providers.

Summary Part 2

Management of energy poverty by Batigère Nord Est: a source of innovation and of new responsibilities placed upon social housing landlords

Social housing landlords, like Batigère Nord Est, are called upon to boost the economy of the construction industry, by building housing for tenants who are increasingly disadvantaged by numerous increasingly complex financial and personal difficulties. Landlords thereby contribute to the attainment of national goals in the climate and energy fields. The variety of these obligations stands in contradiction with the complex economic and regulatory environment governing landlords' action. The obligations laid upon them are often mutually exclusive. Among such obligations are:

- Provide decent housing and services to a population increasingly less able to pay for the rental and other costs of that housing,
- Apply increasingly demanding standards of energy efficiency which oblige landlords to opt either for applying less than optimal standards to the greatest number, or to build to the highest standards (and cost) that will benefit only a tiny number of those best able to pay,
- Constantly seek to balance tenants' ability to pay and hence sustain landlords' revenue stream, against landlords' use of own funds for reinvestment in housing provision,

- Respect the DALO statutory right to housing for those of highest priority and the obligation to provide access to housing in neighbourhoods whose social and economic diversity is preserved, as required by the law on Equality and Citizenship,
- Implement missions whose political, economic, social and environmental goals are rarely compatible one with another,
- Become a member of a network of partners, acquiring the ability to review and summarise the constraints faced by each, not neglecting the constraints that arise from the implementation of policies locally devised or locally implemented.

This study gives an account of the various strategies of the actors involved, in particular tenant, landlord and local partners.

The study emphasises the constraints on tenants and the coping strategies that they must adopt in order to pay their rent and associated service charges. To put matters briefly, the strategy for some is to deny themselves heating and suffer accordingly, while for others it is to abuse the system.

The study highlights the capacity of Batigère Nord Est to adjust its policy implementation in order to respond to issues of energy poverty, doing so through two interventions. The first is the introduction of building management systems for technical upgrading of the building's ability efficiently to respond to the need for space heating. The second is a social mission, a new responsibility thrust upon social landlords who are required to service an increasingly disadvantaged clientele. This approach is all the more innovative in that it has been adopted as an internal guide for action of the AMLI Association within Batigère group, bringing into being new initiatives such as reflection on the acceptable share of income spent on rent and service charges, thereby avoiding new tenants being placed in a situation of inability to pay from the moment they move in.

Technical and social actions nevertheless come into conflict with a large number of rules, imposed obligations and mandatory modes of institutional operation that are rarely compatible, as is illustrated in the current modes of local cooperation. At local level partnership approaches are historically well-established in Nancy, even though energy poverty is treated as a sectorial issue. Thus the treatment of energy poverty, which lies at the cross-roads of housing, energy and social policy implementation, is not guided by a dedicated policy of its own. And although it deserves a coordinated and transversal approach, silo mentalities still rule. It is apprehended via other means, such as access to social benefits, rental arrears, awareness of health issues or of insufficient income levels, etc. *In the final analysis, it has become a landlord responsibility to devise manageable solutions to vulnerable tenants' energy problems.*

This study is divided into 7 parts.

The **first part** focuses on the way landlords handle the issue of energy poverty, notably thanks to information they get because of rent arrears.

The **second part** attempts to characterise profiles of energy poor households and identify tenant strategies of coping with energy expenditure. In a household context where so little is left over for living after payment of rent, cutting back on the amount of energy (i.e. heating) may be the only way to adjust.

The **third part** illustrates the “contradictory injunctions” (aka mutually exclusive obligations) weighing on landlords when they invest in buildings occupied by persons whose ability to pay is severely limited. Under constraint both economically and technically, landlords are forced to rein in their investments and proceed only with those they consider of highest priority.

The **fourth part** identifies the various levers brought into play by landlords to improve tenants' ability to meet their financial obligations, with a particular focus on those closest to destitution. Reflection under the auspices of AMLI on the introduction of a share of income spent on rent and service charges limited to 25% is dealt with in this part. Reduction of payables by tenants and financial and other assistance to boost their solvency are the two other approaches of the landlord and of the social workers, who nevertheless have to battle with the fragmentation of the existing approaches in this field.

The **fifth part** is devoted to the approach adopted by Batigère Nord Est to develop social support by relying on the AMLI association as part of the Batigère group. Such an approach is an innovation in its own right.

The **sixth part** deals with another tool adopted by landlord and social workers, ie with the awareness-raising of tenants to the need for energy savings. Although such an approach may be beneficial to tenants whose consumption is excessive, the question of the effectiveness of this tool is raised given that a certain number of tenants are under-consuming energy in the first place, in a bid to contain their spending.

The **seventh and last part** deals with collective action and the necessarily transversal nature of the fight against energy poverty. It emphasises the limits of that policy: difficulties of coordination between administrations, the complexities of the relationship with local authority elected members, and the absence of commitment to the issue from energy suppliers.

2. European Case Studies

Summary Part 3

Poplar HARCA or how to address Energy Poverty as a means to tackle deprivation

Poplar HARCA is a social housing landlord in the East London Borough of Tower Hamlets, among one of the three poorest in London. From its foundation in 1998, it made tenants and their well-being the main focus of its work in a bid to break with their feeling of being marginalised and ignored, characteristic of deprived areas. The context is one in which energy poverty is one only among many other dimensions of distress. Poplar HARCA takes action against energy poverty as part of the fight against poverty. Although housing management in technical terms is limited to the assets under Poplar HARCA management, the landlord's engagement in social action and in programmes to raise awareness to issues of energy sa-

ving extend to all members of the local community. The landlord has used energy savings projects as an instrument to enhance the experience of community living and offer those involved opportunities to be involved in community work and acquire skills through training.

In this way Poplar HARCA fills the void left by Central Government's withdrawal from social issues and provides some alternative to the budget restrictions that have hit all public social spending. This is the nub of the paradox of Central Government in the UK, which is withdrawing from housing policy while devolving its welfare protection of the most vulnerable to private sector actors, all the while it maintains its very strict framework of rules for social housing. Landlords are under increasing pressure to diversify modes of action and find the funding required for energy upgrading and social support. A tense situation is further exacerbated by the uncertainties surrounding Brexit.

These are so many reasons to explain why the range of social action is as extensive as it is in Poplar HARCA. It targets both tenants and the community more generally under an internally driven approach adopted at the time of its foundation. It also relies on an extensive network of partners, all of which have had to react to reforms and budget cuts. The landlord is ready to adopt a high profile role as a unifying force for the whole community in Poplar, where most of the properties it manages are located. It has become a point of centralisation and distillation of the various stakeholders involved (tenants, local people, municipal authorities, NGOs) and thereby contributes to the emergence from poverty of the local population.

This study of Poplar HARCA reports on the conditions under which the landlord implements technical and social programmes at the local level. It shows how combating energy poverty is no more than one among other tools to combat poverty and support return to employment.

The **first part** draws attention to the regulations and constraints that weigh down on landlords in a context where Central Government fails to protect the most vulnerable citizens.

The **second part** examines the issue of energy poverty in the borough of Tower Hamlets, and considers the view taken of energy poverty by tenants and landlords.

The **third part** seeks to show the pressure placed upon landlords to invest in building renovation in order to ward off the high risk of energy poverty faced by tenants. As an actor in the energy transition, the landlord is confronted with the difficulties of installing renewable technologies, taking the form of lack of staff skills, and volatility in terms of national policy-making.

The **fourth part** non-exhaustively surveys the set of actions that Poplar HARCA deploys in its role as contributor to social cohesion at the community level. There are two pillars: taking in-house responsibility for social action, and the mobilisation of the community more generally through energy savings programmes.

The **fifth part** looks at the way Central Government's withdrawal from the field of social responsibility has led to the reformation of collective action. But however much public and private actors attempt to set up sustainable collaboration, they are always confronted with the uncertainties surrounding public funding and political choices.

Energy poverty and social housing in Scotland or the diversification of the responsibilities assumed by social housing landlords. Innovations in Grampian Housing Association

Numerous Scottish reports show that energy poverty in Scotland is not wholly correlated with poverty as such, but that it is an aggravating factor of inequality and social injustice. For these reasons, the Government of Scotland continues to consider that energy poverty is a political priority. Indeed, it declared energy efficiency to be a national infrastructure priority. In so doing, a distinction must be made between the Scots and Westminster governments, the latter seeking to withdraw from public sector issues. Hence the Scottish approach to energy poverty demonstrates the complexity and tenseness of the relationship between Westminster and Holyrood.

In this context of reforms and tension, landlord Grampian Housing Association put social justice at the heart of its concerns and has attempted to act on the three dimensions of energy poverty which are housing, income levels and energy prices. The multi-dimensional features of the way energy poverty is tackled as an issue, are in themselves an innovation.

Action on housing: The landlord is continuing to invest in improving the building fabric to ensure tenant comfort and well-being. But the landlord is required to comply with ever more constrictive standards of energy performance, which weigh down on its ability to balance the books. The fact remains that the properties that require renovation by the landlord need measures and technologies that are ever more costly, while budgets are being squeezed.

Action on income through social support: Although there is a lesser risk of energy poverty in social housing because of the quality of the stock, the social and economic circumstance of tenants make them increasingly vulnerable in terms of their ability to pay for energy. This risk is all the greater as a major part of tenants rely on prepayment meters whose costs and the energy prices charged are some of the highest in the market. Faced with such social injustice, Grampian Housing Association as social housing landlord adopted a pragmatic approach through a system of social support and advisory services to enable a reduction of the spend on energy relative to the total extremely low household income of its tenants. This is a first innovative approach.

Action on income through renewable energies: The landlord also seeks to share the cost-savings from renewable energies with its tenants, so that they benefit from in part free-of-charge solar energy and from innovative solutions of heat storage. This was the landlord's chosen means of circumventing the undue cost burden placed on tenants of paying for the energy transition without getting any return on investment. But the British government cut back its support to the development of solar energy and the project could not be pursued to completion by the landlord. This has been a source of further inequality between those tenants who benefit from in part free electric power, and those denied it.

Action on prices: Another injustice addressed by the landlord is the energy prices paid by

Energy poverty in Germany. Between denial, redistribution and prevention

tenants equipped with prepayment meters. Grampian Housing Association has teamed up with other landlords to create a social energy undertaking known as *Our Power*. Its mission is to offer power at lower prices than in the prepayment meter market, although in a highly competitive and difficult one. With support from the Scottish government, *Our Power* must find the financial resources to increase its market share. Taking the initiative to create a not for profit energy supplier is a major innovation, which turns the social housing landlord into an actor in the energy market.

The landlord's stance is thereby not simply one of being a producer and manager of housing, for the lower income population, but of being an active player in the market of provision of services to the disadvantaged. In cooperation with other landlords, it also becomes a player in the energy markets and overcomes some of the shortcomings in that market.

The **first part** of this monograph examines how Scotland differs from England, both in terms of the definition and understanding of energy poverty and in terms of the political attention that is attached to it.

The **second part** allows tenants to express their feelings about the difficulties they are confronted with, in access to and payment for energy. They speak about the coping strategies that they seek to develop in response.

The **third part** is devoted to the landlord's technical action reliant on measures of thermal renovation and the deployment of renewable energies. However, this action is thwarted by a number of contradictory circumstances of financial, regulatory or economic nature.

The **fourth part** deals with the diversification of the landlord's entrepreneurial scope of action. Landlords have had to take in-house the duty of social support of tenants, by enhancing tenants' ability to pay bills and ensure that the savings expected from the introduction of new technologies are passed on into lower energy bills. According to this particular landlord, the best way to reduce costs paid for by tenants is to take control of the price of the services provided to them, hence the landlord's commitment to control of prices of electric power sold to tenants, by setting up *Our Power*.

The **fifth part** seeks to demonstrate that local collective action, in particular involving local authorities and better coordination between local and central government (in this case the Scottish government) on regulations and financing procedures, would make it easier for landlords to define long term objectives.

The difficulty for this monograph is that neither the German authorities nor undertakings involved in the provision of housing recognise energy poverty, whether because the authorities do not recognise it as a specific field of public policy-making, or because housing providers do not recognise it as a specific field of action. According to both, energy poverty does not exist. However, German NGOs and consumer associations see a worrying rise in requests for help from households building up arrears of payment for energy. Why no definition and still less measurement of the extent of the problem? The risk of falling into energy poverty is denied to exist because expenses of electricity, heating and hot water are taken care of under the social system. In addition to such financial assistance, the government finances an energy saving programme implemented by the NGOs. An approach such as this relies on the underlying principle of the German State, according to which claimants must deserve the assistance they seek and make efforts to escape dependency on assistance (*Hilfe zur Selbsthilfe*). If there is any discussion, it is basically about the methods of calculation used to determine the levels of flat rate energy allowances which, according to the NGOs are not enough to cover the fundamental needs of vulnerable households. This is precisely the point on which the NGOs, consumer associations and the left wing party *Die Linke*, are mobilising in attempt to win recognition for a specific social problem, which reflects the inequalities of German society. In the final analysis, perhaps the worst affected are families of working poor who cannot claim social benefits to offset the never-ending rise in energy prices since the middle of the first decade of this century. Actual levels of benefits for some, and the fact that others do not qualify, are the first signs of the difficulties which, combined with vulnerability in social and economic terms, might contribute to deepening inequality in Germany.

In this context, housing providers in Berlin consider that the problem is covered by existing social policy, and in their view, their main mission is to improve the outer insulating fabric of buildings so as to offer high quality housing that reduces the energy needed for interior heating of tenants' homes. They publish energy savings advice brochures. One of them, the municipal housing company, Gesobau, set up a project with Caritas to popularise a culture of moderated use of energy among tenants. Due to insufficient mobilisation by the proponents of the scheme and by tenants, the project did not have the expected results. German rental housing providers and landlords tend to concentrate on their original roles as builders and managers of housing, in which social support is limited to financing projects of local awareness-raising by working with charitable and equivalent foundations, as do the two municipal housing providers, Gesobau and Gewobag.

The decision to concentrate on building renovation projects is in part explained by the fact that landlords are first in line when it comes to meeting the energy efficiency targets laid down by the government in the housing field. But the landlords, faced with the rise in costs of construction, the pressures of increasingly stringent standards of thermal insulation and an overall drop in their income, are finding it increasingly difficult deliver target rates of return and must prioritise their investment goals. Hence careful thinking about the complete

Energy poverty or the emergence in Catalonia of a policy of “comfortable housing and living”

or partial renovation of a building when only 11% of the cost of works (and 6% only in Berlin) can be passed to tenants whose levels of income are such that they can but rarely afford to pay higher rents. Even more reflection is required when further to known costs of renovation, there is the additional expense of making good the shortfall between the benefits of expected savings and the reality of actual savings.

Over and above energy efficiency, the government also expects housing providers and landlords to be in the forefront of the development of renewable energies. However the *Mieterstrom* or law on tenants’ access to solar power fails to take into consideration the tax consequences for landlords. Their status gave them certain tax exemptions. These they may lose if they become an energy supplier to their tenants. The cost could be offset by passing it on into rents. But this would be in frontal contradiction with the law on electricity, drafted for tenants whose very purpose is to bring down the electricity bills they pay, thus empowering them to become actors in the energy transition. To overcome this difficulty, rental housing providers must innovate: some by partnerships with service providers, some by the creation of a subsidiary dedicated to energy services, such as Gewobag ED. They are also trying to reduce costs through collective energy purchasing projects.

These efforts as whole lend more credence to the position of the German State, according to which current policies have and are preventing the emergence of energy poverty. Although German rental housing providers do not directly deal with energy poverty as a problem, the technical features of their policies contribute to reducing the cost burden on tenants and to better management of the risk of arrears in the payment of rent and of energy bills.

The **first part** shows that because the German social system at least partly covers the issue of energy poverty, it denies any recognition of the problem despite the debates initiated by NGOs and academics.

The **second part** of this monograph reviews the constraints and inequalities which burden energy consumers. Although energy poverty is not recognised as such in Germany, observed inequalities render households more vulnerable in terms of their access to energy services.

The **third part** seeks to present the constraints that weigh on landlords as actors in the energy transition. To consolidate their action, Berlin housing providers are seeking greater flexibility in terms of finance and the setting of priorities for the introduction of the government’s energy transition policy.

The **fourth part** emphasises the importance of energy savings. These first of all rely on landlords’ ability to negotiate energy prices downward, so that they are less of a cost burden. Savings are then driven by the dissemination of an energy savings culture, a task assigned by the government and landlords to the NGOs. The social action of rental housing providers is essentially limited to financially support local and neighbourhood awareness-raising and other initiatives.

In Catalonia, the concept of energy poverty was put on the agenda as never before elsewhere in the Iberian peninsula. From 2010 onward, situations of “deprivation of energy in the home” were massively re-interpreted as being a social problem which had to be addressed by the public authorities, requiring both decisions and actions to remedy it.

Placing the issue on the agenda was largely the work of collective and non-state organisations, who gave publicity to cases of deprivation of energy which previously had been suffered behind closed doors.

The work presented is the result of a survey of actors working at two levels of responsibility in the social housing field. It shows how the concept of energy poverty becomes the underlying justification of a new form of argumentation whereby the refurbishment of social housing assets has as its aim not the achievement of unrealistic financial saving targets, but of the attainment of a specified degree of home comfort. What was previously a mission of the Social Services now became part of the remit of institutional housing providers, who have been laid under an obligation to provide a minimum level of comfort to occupiers.

A **first part** seeks to identify how energy issues and their resolution have been understood and implemented by social housing providers.

A **second part** highlights two approaches developed by social housing agencies in Barcelona, whose aim is housing renovation and action to improve comfort in the home.