



The Good, the Bad and the **Leading Lights**

**Local Authorities Going Above
and Beyond National Building Standards**



Image: Solarcentury

CONTENTS

Executive Summary	04
Foreword	05
Introduction	06
Overview: Local Authorities	08
Research Methods	12
Results: Overview	14
Results: A Deeper Look	18
Focus: Leading Lights	20
Focus: Leading Scotland	22
Focus: Leading London	24
Conclusions and Recommendations	26
Bibliography	27

This report should be cited as:

Solar Trade Association (2019), The Good, the Bad and the Leading Lights - Local Authorities Going Above and Beyond National Building Standards, G. Stanley, E. Rosewarne.

EXECUTIVE SUMMARY

The built environment is a leading contributor to the UK's emissions share. Lacklustre national policy efforts have contributed to this sector emitting roughly 40% of the UK's total emissions with energy use in homes alone accounting for about 14%.¹² In 2019 the Committee on Climate Change highlighted that near complete decarbonisation of the housing stock was required to reach our previous emission reduction targets, meaning that without substantially increasing the energy efficiency and sustainability of the existing housing stock the commitment to bring all greenhouse gas emissions to net zero by 2050 will be unachievable.³⁴ However, the glaring opportunity to prevent new build housing from adding to the number of inefficient homes through the implementation of leading national building regulations has not materialised.

This report looks at the local authorities that have already implemented building regulations which surpass national requirements by using

the powers granted in the Planning and Energy Act 2008. Through an freedom of information (FOI) request issued earlier in 2019, the STA has collected information on which local authorities have implemented higher building standards than those required under national regulations. The responses were then ranked by the STA to identify which could be considered 'Leading' in terms of their ambition, scope and integration of renewables. The findings that over 50% of local authorities have already succeeded in implementing higher standards should encourage many more to follow suit and instil confidence at the Ministry of Housing, Communities and Local Government (MHCLG), as well as the devolved administrations undertaking building regulation reviews, that tighter building regulations, necessary to reduce the built environments contribution to the UK's emission share, are achievable, prevalent and to many, old news.



FOREWORD

In 2018 the STA published our Leading Lights report, which highlighted more than thirty exemplary case studies of solar and storage projects delivered by local authorities across the UK. Since then, the importance of local governments' role in the climate crisis has been increasingly recognised, and notably supported by the work of UK100 and Ashden. The Committee on Climate Change report: "Net Zero – the UK's Contribution to Stopping Global Warming" highlights how cities and local authorities 'are well placed to understand the needs and opportunities in their local area'.⁵ "Bottom-up" action from local government, in tandem with national policy setting, will be necessary in order to achieve net zero greenhouse gas emissions by 2050.

Weak national policy on solar since 2015 has resulted in lower annual installation rates for the technology and caused the market to contract. During a difficult period, the extent to which progressive new build policies from local authorities provided a stable market for the solar sector became clear. Indeed, good local new build policies have played a vital



role in the survival of the solar industry, which appreciates the significance of local leadership in their delivery.

The regulation of building standards is a particularly important area in which local administrations have powers to determine higher, more stringent requirements than those set out at national level, and can act to improve said standards without financial constraint. This report provides an overview of the prevalence, ambition and observable trends in local government implementation of higher building standards.

Chris Hewett

**Chief Executive
Solar Trade Association
October 2019**

INTRODUCTION

Since 2008 and the implementation of the Climate Change Act, the UK has been legally obligated to drastically reduce its carbon footprint. The Government is also required to set legally binding emissions targets every five years the first two of which have been achieved. However by the Government's own projections the UK will breach its fourth and fifth carbon budgets.⁶⁷ Despite these projections in May 2019 the UK became the first major economy in the world to pass legislation to reduce greenhouse gas emissions to net zero by 2050 – a significantly more ambitious target than the previous 80% goal that has far reaching implications for the decarbonisation of the entirety of the UK economy.

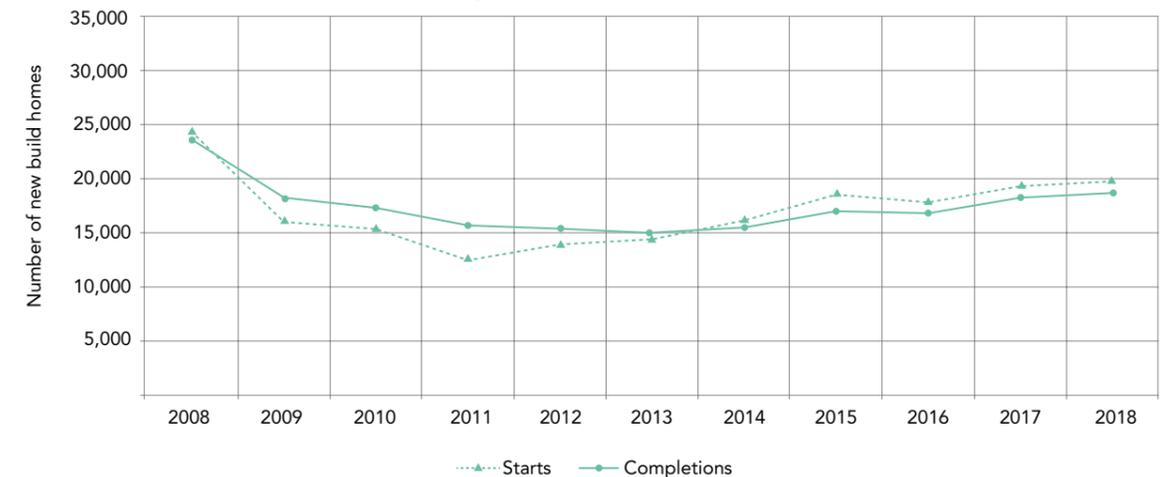
2019 has seen growing interest and activity around climate change. There have been mass, peaceful protests, notably from Extinction Rebellion, a rise in youth engagement in the form of 'School Strikes' replicating that of activist Greta Thunberg, and increasing pressure on the Government from industry, NGOs and the Committee on Climate Change to radically strengthen their approach to tackling the UK's carbon footprint. Undoubtedly, this has contributed to local authorities, devolved administrations and, subsequently, the UK Parliament declaring a Climate Emergency, followed by then Prime Minister Theresa May committing the UK to net zero greenhouse gas emissions by 2050.

The UK's building stock poses a significant challenge to decarbonisation, contributing to

around 40% of the UK's total carbon footprint. Improving building standards through decarbonisation and higher energy efficiency standards is one of the most cost-effective ways to reduce carbon emissions. Only in July 2019 did the BEIS Select Committee identify how the 'UK stands no change of meeting its emissions reduction targets, including net zero by 2050, unless the Government takes urgent action to revive its failing energy efficiency policy and builders are compelled to deliver the latest energy efficiency standards'.⁸ This report flagged how insulation measures installed in houses under Government schemes were around 95% lower than in 2012. Whilst retrofitting existing homes poses a significant challenge, it is imperative that new build standards are ambitious to prevent additional poor-quality buildings further exacerbating this issue.

In England and Wales, the scrapping of the Zero Carbon Homes policy in 2015 has reportedly cost new homeowners £200 a year and there have been weak and inconsistent policies for renewables and building standards since.⁹ In contrast, the Scottish Government has implemented higher building standards since 2015 and the effects are starkly positive; anecdotal evidence from our members suggests that at least 80% of new homes in Scotland have solar installed. Housing development in Scotland has not suffered detrimentally, with the Figure on the following page highlighting the minimal effect observed to date.¹⁰

Annual all sector new build starts and completions, years to end September, 2008 to 2018



The 2019 CCC report "UK housing: Fit for the future?" unsurprisingly concluded that UK housing is not 'adequately prepared for the challenges of climate change; both in terms of reducing emissions from UK homes and ensuring homes are adequately prepared for the impacts of climate change'.¹¹

The obvious need to address the quality of the UK's housing stock has contributed to the Government recently setting out welcome but nebulous policies, such as the Buildings Mission's ambition to halve new build energy use by 2030, and the Future Homes Standard which will require all new homes to be built to an "as of yet undefined, world-leading energy efficiency standard", as well as requiring new homes to install low-carbon heating by 2025.

Disappointing national leadership has not gone unnoticed by many in local government. Authorities are offering leadership of their own by declaring Climate Emergencies or implementing net zero targets: Nottingham City is aiming to become carbon neutral by 2028. Local government for years have also been pioneering more progressive policies than the national government for new build housing – an approach which was legislated for in the 2008 Planning and Energy Act. The introduction of this Act followed the widely celebrated example of the 'Merton Rule', of the London Borough of Merton, which required new major developments to generate at least 10% of their energy needs using renewable technologies.¹²

LOCAL AUTHORITIES AND BUILDING REGULATIONS – AN OVERVIEW

LOCAL GOVERNMENT

The structure of local government can be split into three distinct categories: county councils (27), district, borough and city councils (201) and unitary councils, which can be further divided into: metropolitan boroughs/districts, London boroughs and unitary councils. County councils cover the entire county area and are responsible for areas such as strategic planning, transport planning and waste disposal. Counties are then divided into multiple districts (also called borough or city councils) responsible for areas such as housing, planning application, environmental health and waste collection.¹³ Unitary authorities are areas which have one tier of government; these then cover both areas of responsibilities. Some areas are also merging

to form Combined Authorities. There are now nine combined authorities which are able to negotiate additional powers and investment from national government, and elect their own mayors. This structure offers new opportunities for political leadership and action.

Local authorities have also been involved in declaring Climate Emergencies, in response to mounting public awareness and pressure on this issue. Climate Emergency declarations first began in November 2018 with Bristol City Council and as of July this has been followed by ~120 Local Authorities (excluding town and parish councils).¹⁴ If these Climate Emergency declarations are to be meaningful, it is more important than ever that local authorities utilise existing powers to act.

BUILDING REGULATIONS

Building Regulations relate to the 'standards for the design and construction of buildings to safeguard the health and safety of people in or about those buildings, as well as including requirements to ensure that fuel and power is conserved'. Scotland, along with the other devolved governments of Wales and Northern Ireland, can set their own standards.¹⁶

For some time now, it has also been possible for Local Authorities to set their own, higher building regulations. Section 1 of the Planning and Energy Act (2008) introduced powers for local authorities in England and Wales to include in their local plans energy efficiency standards that exceed current building regulations and for proportions of energy use in the development to come from low carbon and/or renewable energy sources (see Box 1).¹⁷

These distinct powers were obscured in March 2015, when the introduction of the Zero Carbon Homes policy was proposed to heighten and standardise new build development. Meanwhile the power of local authorities to set their own, differing standards was intended to be removed. This led to the proposed Deregulation Bill, where a Written Ministerial Statement (WMS) stipulated that

local authorities should not set additional local standards or requirements through building regulations in their local plans, due to the forthcoming implementation of the Zero Carbon Homes standard. The WMS clarified that until the amendments were made to the original 2008 bill, 'local authorities retained the right to set and apply policies in their local plans which required compliance with energy performance standards that exceed the requirements of the Building Regulations', but that it was expected that local authorities should not set efficiency standards above the Code for Sustainable Homes Level 4.¹⁸ However, shortly after this, the Zero Carbon Homes agenda was scrapped and the Government never implemented the intended amendments to local authorities powers. As such, through the 2008 Planning and Energy Act local authorities still retain the right to stipulate that a proportion of energy used in development come from low carbon and/or renewable sources as well as that the development in their area comply with energy efficiency standards that exceed the energy requirements of building regulations (up to the Code for Sustainable Homes Code 4, as per the WMS).



Since then the Government has revised the National Planning Policy Framework, issuing the following response in summary of the Government's view on the way forward:

'A number of local authority respondents stated the view that the text in the revised Framework restricted their ability to require energy efficiency standards above Building Regulations. To clarify, the Framework does not prevent local authorities from using their existing powers under the Planning and Energy Act 2008 or other legislation where applicable to set higher ambition. In particular, local authorities are not restricted in their ability to require energy efficiency standards above Building Regulations.'^{19'}

Furthermore, in March 2019 there were updates to the Government's Planning System Climate Change Guidance. This stipulates that local planning authorities:

"...can set energy performance standards for new housing or the adaptation of buildings to provide dwellings, that are higher than the building regulations, but only up to the equivalent of Level 4 of the Code for Sustainable Homes" and "are not restricted or limited in setting energy performance standards above the building regulations for non-housing developments"²⁰.

Therefore, despite this period of confusion, local authorities have clear powers to exceed nationally set requirements for planning policy and building standards. These allow them to set their own targets for energy efficiency, renewables and low carbon sources for new build domestic and commercial developments (see Box 1).



Image: Photon Energy

BOX 1: LOCAL AUTHORITY POWERS

The Planning and Energy Act provides local authorities with the authority to implement energy policies in the following three areas for local developments: energy efficiency standards, renewables and low carbon sources

Planning and Energy Act 2008: 1 Energy policies

(1) A local planning authority in England may in their development plan documents, and a local planning authority in Wales may in their local development plan, include policies imposing reasonable requirements for—

(a) a proportion of energy used in development in their area to be energy from renewable sources in the locality of the development;

(b) a proportion of energy used in development in their area to be low carbon energy from sources in the locality of the development;

(c) development in their area to comply with energy efficiency standards that exceed the energy requirements of building regulations

MHCLG have clarified part (c) regarding energy efficiency standards for residential premises to be limited to the equivalent of Level 4 of the Code for Sustainable Homes.

MHCLG: Climate Change Guidance – “Can a local planning authority set higher energy performance standards than the building regulations in their local plan?”

“Different rules apply to residential and non-residential premises. In their development plan policies, local planning authorities:

Can set energy performance standards for new housing or the adaptation of buildings to provide dwellings, that are higher than the building regulations, but only up to the equivalent of Level 4 of the Code for Sustainable Homes.

Are not restricted or limited in setting energy performance standards above the building regulations for non-housing developments.”

As such, for commercial premises it is possible for local authorities to stipulate energy performance standards, as well as proportions of energy use from low carbon sources and renewables.

Equally, for residential premises it is possible for local authorities to require energy performance standards up to code 4 of the Code for Sustainable Homes and a proportion of energy to be from renewable and low carbon sources: this has been demonstrated through local plans, for example, that of Milton Keynes.

STA RESEARCH METHODOLOGY

Since January 2019 the STA has been accumulating responses from a Freedom of Information request sent to all local authorities across the UK. The FOI asked:

1. **Has your authority implemented, or does it plan to implement policies for new build homes and / or other new buildings where buildings energy or carbon performance exceeds current national Building Regulations? (YES/NO)**
2. **If yes, please describe what these requirements are in as much detail as possible**
3. **Please provide information on what the outcomes of implementing the policy that have been observed so far**

The responses were gathered and for the local authorities who did not respond a manual search was conducted to find their most up-to-date, available local plan. The responses were then analysed. Firstly Q1 determined whether the local authority had implemented higher building regulations (YES/NO). It is expected that local authorities will have responded in reference to their relevant national building standards (i.e. English local councils will have compared themselves to MHCLG's Building Regulations, Scottish councils against the relevant Building Regulations for Scotland, and so on).

Subsequently, for the YES responses, the detail of such policies were analysed to determine an "STA Rating", which was based on the following criteria -

- Whether the response or plan included a specific mention or targets for low carbon generation
- The scope of applicable developments
- How strong the caveats to implementation appeared
- How ambitious the targets were
- Whether this ambition increased over time

All local authority responses for this second analysis were compared against the building Regulations issued by MHCLG. England and Wales Building Regulations were used as the baselevel for the rating due to the comparatively less ambitious and stringent regulations set. From this, Local Governments were given an 'STA Rating of: minimum, acceptable, good, leading and future.

The minimum rating was created due to the analysis finding a discrepancy in responses to Q1 from local councils. It was found that some local authorities requiring an energy statement would deem this a higher requirement than national building standards and so respond YES, whereas others would respond NO.

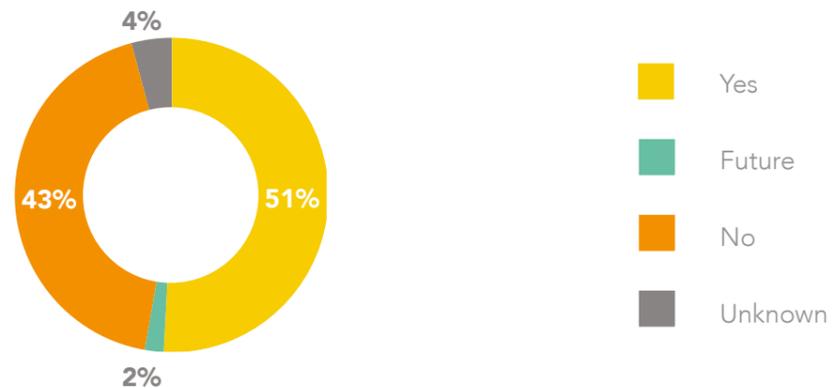
STA RATING	EXAMPLE CHARACTERISTICS
Leading	<ul style="list-style-type: none"> ■ All developments included a higher than 10% energy reduction from Low Carbon Technologies / renewables, increasing ambition over time and minimal/no caveats ■ All developments to implement a 19% reduction on Part L 2013 Building Regulations for all developments, 10% reduction from onsite renewable, and minimal/no caveats
Good	<ul style="list-style-type: none"> ■ Wide scope of applicable developments (e.g. all major developments) specific mention of renewables, medium ambition of 10% energy demand reduced through low carbon technologies / renewables, limited caveats. ■ 19% reduction on Part L 2013 Building Regulations for all developments, no mention of renewables. ■ Commercial buildings require 'outstanding' rating
Acceptable	<ul style="list-style-type: none"> ■ A low energy reduction or energy efficiency target set (<10% energy demand reduction), applicable to a small scope of developments and with significant caveats to its implementation, making it easier for developers not to comply.
Minimum	<ul style="list-style-type: none"> ■ Merely stipulating that an 'energy statement/assessment' be produced ■ That there would be 'encouragement' for renewables, without specific targets.

It is possible that some authorities may have updated their local plans since this FOI request was conducted in January 2019. Furthermore, for the instances where the local authority did not reply there may have been human error in ascertaining the relevant local plan documents. As such, the datasheet behind these figures is intended to be a live resource, available to STA members and updated accordingly with fresh information. The information here presents only a snapshot of what data was available to us across this time period. Interested parties should contact policy@solar-trade.org.uk for more information.

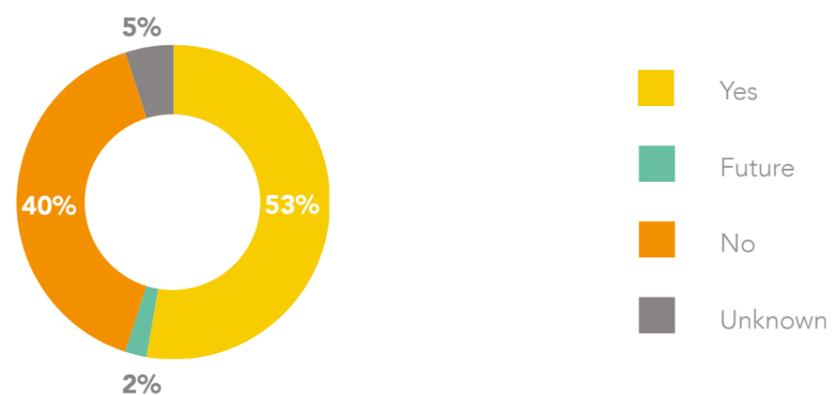
RESULTS: OVERVIEW

There were 435 FOI emails sent to local authorities across the UK. Just over half of the local authorities were identified to have or were planning to implement standards over and above what is required by national building standards ('Yes' or 'Future'). 43% of local authorities do not have higher standards and there was a small number of local authorities who did not respond and further evidence could not be identified. Narrowing down the local authorities to non-county councils (i.e. the 407 local authorities whose remit includes setting building regulations) the effects only differed slightly (Graph 2). As such, for the subsequent graphs all the responses are considered and the separation of county and district councils is not made.

GRAPH 1: LOCAL GOVERNMENTS IMPLEMENTING HIGHER BUILDING STANDARDS



GRAPH 2: DISTRICT COUNCILS IMPLEMENTING HIGHER BUILDING STANDARDS



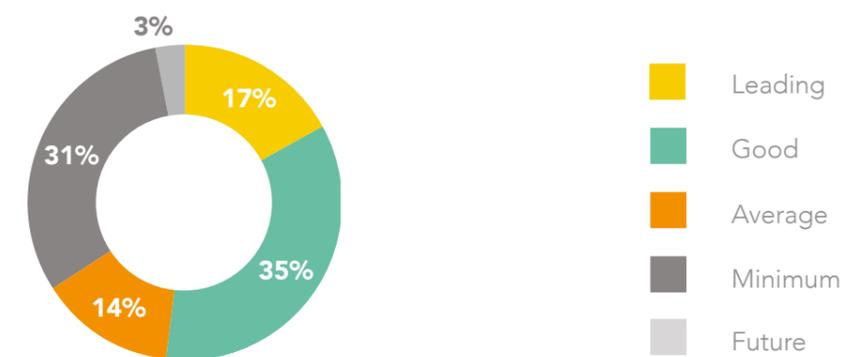
In England and Scotland, 55% and 56% respectively across all local authorities have implemented higher standards. This fell for both Wales and Northern Ireland where a higher proportion of authorities stipulated they did not or it was not possible to identify their policy ("Uncertain").

GRAPH 3: LOCAL GOVERNMENTS IMPLEMENTING HIGHER BUILDING STANDARDS BY COUNTRY



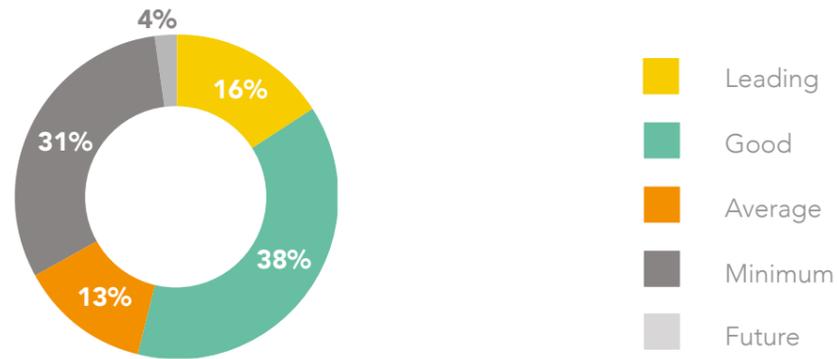
Looking at the STA Rankings across the UK, the largest category for the local authorities who responded that they had implemented higher standards ('Yes' or 'Future') was 'Good'. This was followed closely by 'Minimum', with similar numbers of local authorities rated as 'Leading' and 'Average' respectively. A small minority specifying an undetermined, future policy.

GRAPH 4: UK LOCAL GOVERNMENT 'STA RATINGS'



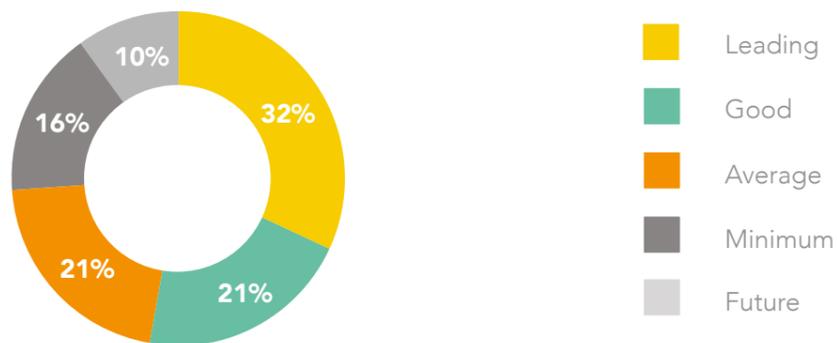
Broken down by nation, England had a slightly higher percentage of 'good' policies comparatively to the rest of the UK, with very similar percentages of Minimum, Leading, Average and Future.

GRAPH 5: ENGLISH LOCAL GOVERNMENT 'STA RATINGS'



Comparatively, Scotland had the highest proportion of Leading policies.

GRAPH 6: SCOTTISH LOCAL GOVERNMENT 'STA RATINGS'



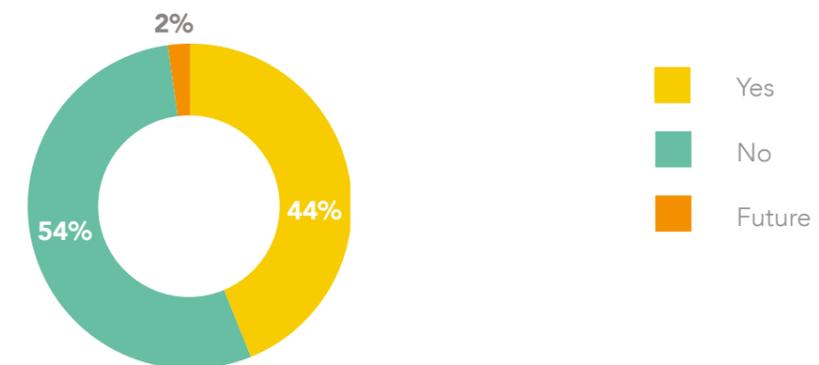
The Combined Authorities STA Ratings produced mixed results. Table 1 highlights that Greater Manchester and West of England are the only Combined Authorities in which all the participating regions have set higher standards.

TABLE 1: COMBINED AUTHORITIES IMPLEMENTING HIGHER BUILDING STANDARDS

Combined Authority	Number of Authorities	Authorities within with Higher/Future Standards %
West of England	3	100
Greater Manchester	10	100
West Midlands	7	86
West Yorkshire	5	80
Sheffield City Region	4	75
North East	4	75
Cambridgeshire and Peterborough	6	67
Tees Valley	5	60
North of Tyne	3	60
Liverpool City Region	6	33

Finally, of the local authorities that have declared a Climate Emergency there was a lower proportion with higher building regulations implemented / planned, comparatively to the UK-wide results by almost 10%.

GRAPH 7: LOCAL AUTHORITIES WITH CLIMATE EMERGENCY DECLARED IMPLEMENTING HIGHER BUILDING STANDARDS



RESULTS: A DEEPER LOOK

Both the longevity of local plans and the time it took for some of these plans to be updated or implemented is striking. A substantial number of these plans had been written much earlier this decade and had either not been updated since or were in the process of being updated. For instance, Basildon Council started work 'in December 2014 on a new local plan that will provide the planning framework for the future growth and development²¹' however, this remains under review having been submitted to the Secretary of State in March 2019 .

Amongst the plans and responses there were references to defunct policies such as the Government's Zero Carbon Homes Agenda. The policies implemented sometimes appeared out-dated, such as only stipulating increases in building efficiency up to 2016. One local authority response highlighted the continued misunderstanding that local councils have regarding their powers, demonstrating the effect that miscommunication and policy U-turns from Government can have:

"However, as of the 1 October 2015, local planning authorities can no longer set requirements for energy performance standards within their local plans. Instead energy performance is now handled through requirements set in Building Regulations."

Several local authorities replied that they had set higher standards, yet our analysis showed these improvements were minimal (such as the requirement to provide an Energy Statement, without any additional prerequisites to prove). Others stated that they would not improve their local plans until building regulations surpassed current requirements, indicating the view of the council that building standards are the responsibility of national regulations.

The response rate from local authorities to our FOI request was around 80%, however, certain areas were noticeably lower - Northern Ireland had by far the lowest response rate. This potentially could reflect the lack of resources and time Local Governments have, or the different building regulation context in NI.



Image: Viridian Solar

There was also a far lower response rate for the final FOI question, which requested information on the outcomes of implementing the authority's policy. For those that did respond, clear evidence was scarce (380 non-responses or N/A and 'no monitoring' was also a reoccurring answer). The responses sometimes referred to monitoring reports, however; these have not been analysed on a case by case basis. The 54 councils that did respond with information varied hugely. For instance, in three local authorities, all stipulating that 10% of future energy use should be met by improved fabric or renewable sources, there were contrasting outcomes:

"We have observed that there is a positive response from developers to meeting these requirements, with no issues or impacts on viability of schemes generally. There is a confidence in Poole to achieve the requirements of previous Core Strategy policies PCS31-35 and Local Plan Policy PP37 in every relevant application. .."

Compared to:

"The 10% carbon reduction has generally been met. There has been some pushback from developers, and in a small selection of cases the Council has had to accept a smaller reduction due to feasibility. We have only been implementing new policy D2 for a couple of months but developers have been able to meet it."

Compared to:

"BUT, IT HAS BEEN DECIDED THAT THIS POLICY IS UNREALISTIC AND IS NOW NO LONGER A REQUIREMENT."

There were observable themes that emerged across the responses. New build domestic



Image: Forster Group

policy had common requirements such as stipulating a 19% reduction in CO2 from 2013 Part L Building Regulations or a 10% energy demand reduction from low carbon technology. For non-domestic building standards, there was frequently a requirement for a 10% energy demand reduction to be met by low carbon sources, as well as a requirement that BREEAM standards of non-domestic buildings achieve 'Very Good' or higher.

There were only two local authorities identified that include a requirement for energy storage and only a handful (four) that included mentions of EVs or EV charge points in relation to new build policies.

Caveats and exemptions cited within the policies also varied significantly – including 'if feasible', 'if viable', 'where appropriate'. A small number of authorities framed renewables negatively; 'only if appearances fit', and in some instances local authorities stated that renewable technologies such as solar were not always appropriate or desirable. The impact of these caveats was hard to determine given the very limited responses to Q.3 regarding the effects of the implemented policy, meaning we do not know how stringently or loosely local authorities applied these caveats.

LEADING LIGHTS

38 local authorities have implemented policies that we consider to be 'Leading', compared to England's current Building Regulation

standards. These are the local councils stipulating the highest standards within the permitted regulatory framework.

LEADING POLICIES



EXAMPLES OF POLICIES DEEMED TO BE LEADING INCLUDE THE FOLLOWING:

Example 1:

"Such an approach (often referred to as the Merton Rule) can lock in an amount of carbon reduction to on site activities and may reduce energy costs to the occupiers of a development. Policy 14 relating to the opportunity for an exemplar new village at Deenethorpe Airfield requires a bespoke energy strategy for renewable and low carbon sources to provide at least 80% of energy requirements on site...." [East Northamptonshire Council]

Example 2:

Milton Keynes is a further example of a council that has implemented one of the most progressive reported policy. Their renewed local plan was adopted in March 2019.

1. Implement the Energy Hierarchy within the design of new buildings by prioritising fabric first, passive design and landscaping measures to minimise energy demand for heating, lighting and cooling.
2. Review the opportunities to provide energy storage and demand management so as to tie in with local and national energy security priorities.
3. The design of buildings and the wider built environment is resilient to the ongoing and predicted impacts of climate change.
4. Development proposals for 11 or more dwellings and non-residential development with a floor space of 1000 sq.m or more will be required to submit an Energy and Climate Statement that demonstrates how the proposal will achieve the applicable requirements below:
 - a. Achieve a 19% carbon reduction improvement upon the requirements within Building Regulations Approved Document Part L 2013, or achieve any higher standard than this that is required under new national planning policy or Building Regulations.
 - b. Provide on-site renewable energy generation, or connection to a renewable or low carbon community energy scheme, that contributes to a further 20% reduction in the residual carbon emissions subsequent to. Make financial contributions to the Council's carbon offset fund to enable the residual carbon emissions subsequent to the a) and b) above to be offset by other local initiatives."²³



LEADING SCOTLAND

In 2015, Scotland demonstrated significant leadership in the building regulation space. 'The table below shows a few key features of the notional dwelling for the new Scottish regulations and compares them with the same requirements for the previous regulations and also the current regulations in England'.

'Where the two nations diverge massively is that the notional house in Scotland includes a PV system on the roof for homes heated with gas, LPG or oil, whereas the English regulations include no renewables at all in the notional dwelling'. In order to prevent energy inefficient houses being built with only bolt-on electricity generation used to achieve the higher standards set, Scotland's regulators also

implemented backstop values (as highlighted in Table 3 [see bottom pf p23], extracted from "Scotland shows the way on UK Building Regulations".²²

As a result of all these changes, the carbon emissions permitted for new homes built in Scotland are 22% lower than the same homes built in England.²³ STA Scotland members now estimate that 80% of new build houses are built to include solar PV. Whilst the Scottish local authorities were assessed against England's building standards to provide an STA Ranking, some Scottish authorities have gone above and beyond even the stronger Scottish national regulations.

TABLE 2

Notional Values - Used to Evaluate Carbon Compliance				
Building Regulations Year		Sco.2015	Sco.2013	Eng.2013
Walls	W/m ² k	0.17	0.19	0.18
Floor	W/m ² k	0.15	0.15	0.13
Roof	W/m ² k	0.11	0.13	0.13
Openings	W/m ² k	1.40	1.50	1.40
Air Infiltration	m ² /hr.m ²	7.0	7.0	5.0
Renewables		PV system 30% roof	Solar thermal 2.5-4.0m ²	None



Example 1, Fife Council: Policy 11: Low Carbon Planning permission will only be granted for new development where it has been demonstrated that:1. The proposal meets the current carbon dioxide emissions reduction target (as set out by Scottish Building Standards), and that low and zero carbon generating technologies will contribute at least 15% of these savings from 2016 and at least 20% from 2020. Statutory supplementary guidance will provide additional advice on compliance with this requirement;

Example 2, Aberdeen City: All developments must be designed to reduce carbon-dioxide emissions. Proposals should aim wherever feasible to achieve a Gold sustainability label under section 7 of the building standards technical handbook and by 2019 a platinum label. A target increasing over time in the range 15-30% of the CO2 reduction should be achieved through installing low or zero carbon generating technologies in new development will be applied.

TABLE 3

Backstop Values - Individual Building Elements Cannot be Worse				
Building Regulations Year		Sco.2015	Sco.2013	Eng.2013
Walls	W/m ² k	0.22	0.25	0.30
Floor	W/m ² k	0.18	0.20	0.25
Roof	W/m ² k	0.15	0.18	0.20
Openings	W/m ² k	1.60	1.80	2.00
Air Infiltration	m ² /hr.m ²	no limit	no limit	10.0

LEADING LONDON

London, as the capital, has a somewhat unique structure and powers, with a two-tier local government system; the Greater London Authority (GLA) provides a citywide, strategic tier above the local, borough-led tier. The Mayor's London Plan sets the strategic framework for planning policy across the capital: 'All borough-level local plans are required to be in conformity with the London Plan. In turn, both the London Plan and local plans are required to be in conformity with the National Planning Policy Framework'.²⁴

In May 2018, London Mayor Sadiq Khan set a carbon neutral target for 2050 and this year declared a Climate Emergency. An updated 'Zero Carbon London: A 1.5C Compatible Plan' was published in December 2018. This outlined expectations for zero emissions from transport and buildings by 2050.²⁵ Within this, amongst other significant policy commitments, was the GLA dedication to 'ensure new buildings are zero carbon through setting strong policy

through the London Plan'. The New London Plan draft was published for Examination in Public in January 2019 and has since been updated with minor changes proceeds as follows.

"A zero-carbon target for major residential developments has been in place for London since October 2016 ... This target will be extended to include major non-residential developments from 2019 on final publication of this Plan (expected 2019) To meet the zero-carbon target, an on-site reduction of at least 35 per cent beyond the baseline of part L of the current Building Regulations is required... The minimum improvement over the Target Emission Rate (TER) will increase over a period of time in order to achieve the zero-carbon London ambition and reflect the costs of more efficient construction methods. This will be reflected in future updates to the London Plan."²⁶



Image: Solarcentury

Statement from the Office of the Mayor of London: "London has a strong track record in climate leadership and taking ambitious actions to reduce our carbon impacts, a key part of this has been our continued commitment to reducing the carbon associated with development through the London Plan. These policies set a clear pathway to zero which is why we introduced the zero carbon homes standard in October 2016 despite there not being an equivalent policy at the national level. Strong support from stakeholders has been a vital part of the policy's adoption."



Image: Enfield School, Phil Clarke

London councils have taken differing approaches to setting building regulations. 11 cited that their policy was that of the wider London Plan, whereas the rest stipulated concordance with the London Plan with additional council-specific requirements on top of this. As such, all London authorities have either a 'Good' or 'Leading Light' rating:

Example 1: *Proposals for major development will be required to:*

- be "outstanding" against the current, relevant BREEAM criteria at the time of application, obtaining maximum credits for the City's priorities (energy, water, pollution and materials); ...
- ... incorporate collective infrastructure such as heating and cooling networks, smart grids and collective battery storage wherever possible, to contribute to a zero-emissions, zero-waste, climate resilient City. [City of London Corporation, draft for consultation November 2018]

Example 2: *All new residential development should meet a zero carbon emissions target emission rate in line with the London Plan energy hierarchy and Sustainable Design and Construction SPD. C. All non-residential developments must achieve the BREEAM 'Excellent' rating and where possible achieve the maximum number of water credits, and*

must be built to be zero-carbon. D. Residential development should aim to achieve 10% and non-residential development should aim to achieve 15% through energy efficiency measures alone. E. Major commercial development should generate at least 10% of their energy needs from renewable sources onsite or in the local area. G. Where it can be robustly demonstrated that it is not possible to reduce CO2 emissions on-site by the specified levels, carbon off-setting payments will be required and secured via legal agreement. Hackney

Whilst London has one of the more ambitious standards in the country, it is noted that one route to comply with these standards is through the Carbon Offset Funds, which Local Planning Authorities are required to set up. These collect carbon offset payments from developers in order to meet any carbon shortfall from a new development. This reportedly has accumulated significant funds, which will then be reinvested into the area. Whilst this is a valuable opportunity for the authority to raise funds for wider local development, it perhaps demonstrates that without the oversight of national regulations and appropriate requirements and mechanisms to enforce developers to implement higher standards, sub-standard buildings are still possible.



Image: Yorks Housing

CONCLUSIONS AND RECOMMENDATIONS

Local authorities and the devolved administrations are providing notable and widespread leadership on raising the energy performance standards of new buildings, both in terms of higher energy efficiency standards and by incorporating renewable sources within developments. This leadership has helped to deliver lower energy bills and carbon emission reductions for new homeowners, in tandem with potentially enabling these homeowners to generate their own electricity and respective income. This leadership has also stabilised and enhanced the UK solar industry. By doing so local authorities are helping to develop skills and knowledge that are essential if the UK is to fully decarbonise its building stock.

In the absence of national leadership, much depends on local authorities using local momentum for action. This could include using Climate Emergency status to push through firm policies developing local sustainability, energy efficiency and renewables. Massive improvements to existing housing stock are already required in order for the UK to achieve its legislated Net Zero commitment. It is imperative that ambitious and stringent

building regulations are set to ensure that new build developments do not add to this portfolio and exacerbate further the worrying 40% contribution to UK greenhouse gas emissions that the built environment currently accounts for. The additional powers that local authorities have to set higher building regulations is one core component of this and revised local plans should incorporate some of the Leading policies that have been discussed here as quickly as possible.

This year, with the Part L Building Regulation review soon to be published, there is a key opportunity for national government to step up. Achieving net zero by 2050 requires swift, tangible action from Government and the building regulation review is an important area to focus on. These findings demonstrate that many localities have already improved their building standards to the extent of what is permitted without detriment to the development in their area. It is time for Government to take the role expected of them and improve on the leading light policies already implemented around the UK.

Bibliography

Executive Summary

- 1 UK Green Building Council. Climate Change. Access date: 20.09.2019 <<https://www.ukgbc.org/climate-change/>>
- 2 Committee on Climate Change. 2019. UK Housing: Fit for the future? Access date: 20.09.2019 <<https://www.theccc.org.uk/wp-content/uploads/2019/02/UK-housing-Fit-for-the-future-CCC-2019.pdf>>
- 3 ibid
- 4 Department for Business, Energy & Industrial Strategy and Chris Skidmore MP. 2019. UK becomes first major economy to pass net zero emissions law. Access date: 20.09.2019. <<https://www.gov.uk/government/news/uk-becomes-first-major-economy-to-pass-net-zero-emissions-law>>
- 5 Committee on Climate Change. 2019. The UK's contribution to stopping global warming. Access date: 20.09.2019. <<https://www.theccc.org.uk/wp-content/uploads/2019/05/Net-Zero-The-UKs-contribution-to-stopping-global-warming.pdf>>

Introduction

- 6 House of Commons Library, authors Priestly, S. Bolton, P. 2019. UK Carbon Budgets. Access date: 20.09.2019. <<https://researchbriefings.parliament.uk/ResearchBriefing/Summary/CBP-7555>>
- 7 Committee on Climate Change. 2019. Reducing UK emissions 2019 Progress Report to Parliament. Access date: 20.09.2019. <<https://www.theccc.org.uk/publication/reducing-uk-emissions-2019-progress-report-to-parliament/>>
- 8 Commons Select Committee. 2019. Failure on energy efficiency damages efforts to tackle climate change. Access date: 20.09.2019. <<https://www.parliament.uk/business/committees/committees-a-z/commons-select/business-energy-industrial-strategy/news-parliament-2017/energy-efficiency-report-published-17-19/>>
- 9 Energy & Climate Intelligence Unit. 2019. Zero Carbon Homes. Access date: 20.09.2019. <https://www.architectsjournal.co.uk/Uploads/h/l/g/ECIU_Zero_Carbon_Homes.pdf>
- 10 Scottish Government: Housing, Statistics. 2019. 4% rise in number of new build homes completed. Access date: 20.09.2019. <<https://www.gov.scot/news/4-percent-rise-in-number-of-new-build-homes-completed/>>
- 11 Committee on Climate Change. 2019. UK Housing: Fit for the future? Access date: 20.09.2019 <<https://www.theccc.org.uk/wp-content/uploads/2019/02/UK-housing-Fit-for-the-future-CCC-2019.pdf>>
- 12 BRE. The Merton Rule. Access date: 20.09.2019. <https://www.bre.co.uk/filelibrary/pdf/casestudies/Case_study_-_Merton_Rule_FINAL_110809.pdf>

Local Authorities and Building Regulations

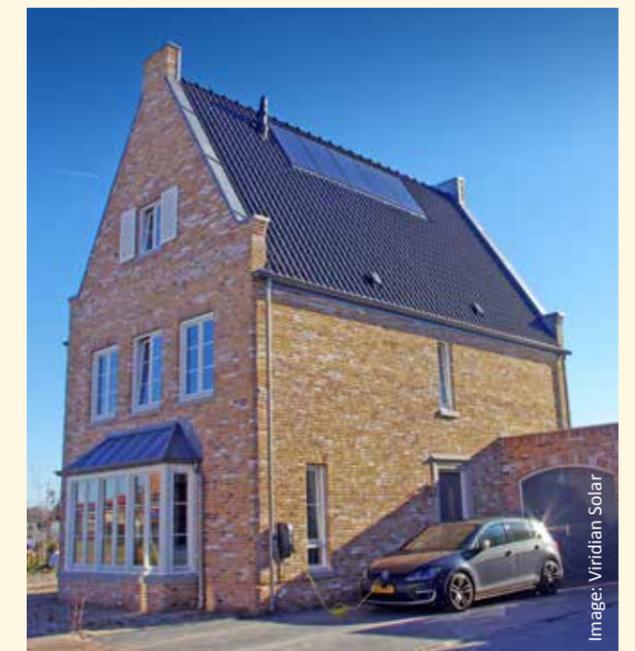
– An Overview

- 13 Politics.co.uk. Local government structure. Access date: 20.09.2019. <<https://www.politics.co.uk/reference/local-government-structure>>
- 14 ENDS Report. Author Kaminski, I. 2019. Climate emergency! How frustrated councils are taking matters into their own hands. Access date: 20.09.2019. <<https://www.endsreport.com/article/1582908/climate-emergency-frustrated-councils-taking-matters-own-hands>>
- 15 Planning Portal. Difference between building regulations and planning permission. Access date: 20.09.2019. <https://www.planningportal.co.uk/info/200128/building_control/38/building_regulations/4>
- 16 The Scottish Parliament. Devolved and Reserved Matters. Access Date: 20.09.2019. <<https://www.parliament.scot/visitandlearn/Education/18642.aspx>>
- 17 Planning and Energy Act. 2008. Chapter 21. Access date: 20.09.2019. <http://www.legislation.gov.uk/ukpga/2008/21/pdfs/ukpga_20080021_en.pdf>

- 18 Burges Salmon. Author Browne, D. 2018. Can local authorities adopt energy efficiency standards that exceed Building Regulations? Access date: 20.09.2019. <<https://www.burges-salmon.com/news-and-insight/legal-updates/can-local-authorities-adopt-energy-efficiency-standards-that-exceed-building-regulations/>>
- 19 Ministry of Housing, Communities & Local Government. 2018. Government response to the draft revised National Planning Policy Framework consultation. Access date: 20.09.2019. <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/728498/180724_NPPF_Gov_response.pdf>
- 20 Ministry of Housing, Communities & Local Government. 2019. Guidance: Climate Change. Access date: 20.09.2019. <<https://www.gov.uk/guidance/climate-change#can-a-local-planning-authority-set-higher-energy-perfor-mance-standards-than-the-building-regulations-in-their-local-plan>>

Results: A Deeper Look

- 21 Basildon Council. Local Plan 2014-2034. Access date: 20.09.2019. <<https://www.basildon.gov.uk/article/2009/Local-Plan-2014-2034>>
- 22 The solarblogger. Author Elmes, S. 2015. Scotland Shows the Way on UK Building Regulations. Access date: 20.09.2019. <<http://www.solarblogger.net/2015/10/scotland-shows-way-on-uk-building.html>>
- 23 Solar Power Portal. Author Elmes, S. 2017. Bricks and mortar and solar: the PV opportunity in housebuilding. Access date: 20.09. 2019. <https://www.solarpowerportal.co.uk/blogs/bricks_and_mortar_and_solar_the_pv_opportunity_in_housebuilding>
- 24 London Councils. GLA and London Plan. Access date: 20.09.2019. <<https://www.londoncouncils.gov.uk/our-key-themes/housing-and-planning/land-and-planning/gla-and-london-plan>>
- 25 Guardian. Author Taylor, M. 2018. London mayor unveils plan to tackle 'climate emergency'. Access date: 20.09.2019. <<https://www.theguardian.com/uk-news/2018/dec/11/london-mayor-sadiq-khan-city-climate-emergency>>
- 26 London Assembly. Policy S12 Minimising greenhouse gas emissions. Access date: 20.09.2019. <<https://www.london.gov.uk/what-we-do/planning/london-plan/new-london-plan/draft-new-london-plan/chapter-9-sustainable-infrastructure/policy-si2-minimising>>





Our work helps to create and expand UK markets in solar and storage. For 40 years we have promoted solar energy and worked to make its adoption easy and profitable for all users. As a not-for-profit we are funded by our membership which includes manufacturers, distributors, developers, asset owners, O&M providers, law firms, consultants, academics and innovators.

Solar's exceptional synergies with storage, EVs and smart grids mean we work on the frontline of technology and system change. Our incisive research, policy-development and lobbying shapes Government policy and regulation. In partnership with key players across the energy industry, the STA is working to secure the smart systems that solar and storage need to thrive.



Solar Trade Association

Greencoat House, Francis Street,
London, SW1P 1DH

t: +44 (0) 20 3637 2945

e: enquiries@solar-trade.org.uk

w: www.solar-trade.org.uk

t: @thesolartrade