

Improving decision-making in smaller local authorities to facilitate Net Zero Delivery - Practitioner insights.

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Abstract

Local authorities in the UK face significant challenges to meet Net Zero targets since they are endeavouring to take on a diversity of roles including being investors in Renewable Energy (RE). They must work within defined legal, constitutional and democratic decision-making structures but without a unifying Central Government regulatory or policy mandate. Much of the research and evidence presented in the literature draws upon the experiences of larger urban local authorities in the single (Unitary) or upper tier of the two-tier structure where most investment will be needed to tackle Net Zero. This paper tries to provide a smaller local authority perspective to Net Zero, with specific attention on RE investment decision-making, drawing on 25 semi-structured interviews with local authority staff involved in Net Zero policy and delivery across the East of England. The research reveals insights highlighting the impact on how RE decisions are made because of political decision-takers' understanding of the Climate Change and Net Zero, different staffing levels and functional approaches to managing Net Zero activity, and complex and time-consuming decision-making processes recognizing the importance of upholding democratic principles of transparency and accountability. Some councils in the study area have managed to streamline their decision-making processes by creating more effective and coherent investment and delivery mechanisms. Recommendations are made in the paper to help smaller local authorities improve their effectiveness at investment decision-making as part of RE delivery with wider implications for central government Net Zero policy and delivery at local level.

1. Introduction

In response to duties set out in the Climate Change Act 2008, UK Government published its Net Zero Strategy in November 2021 outlining its plans for a national transition by 2050 (HM Government, 2021). The Strategy builds on the UK's legal binding target to reach Net Zero emissions by 2050 (Committee on Climate Change, 2020). The Government states that it is mobilising £26bn to leverage up to £90 billion of private investment by 2030 to achieve its interim target of cutting emissions by at least 68% by 2030 on 1990 levels. However, the scale of investment required to achieve the 2050 target far exceeds current pledges, estimated at around £50 billion each year to 2050 while the annual public investment gap is around £33 billion (Committee on Climate Change, 2020; The Institute of Public Policy Research, 2020).

Local Government is identified in the UK Government Net Zero Strategy as playing a central role in the delivery of Net Zero at local level. The local political appetite to play their part is manifest with 336 of the 409 councils (82%) in the UK having declared Climate Emergencies and 360 having some form of action plan to tackle either their own or their area carbon emissions (Climate Emergency UK, 2022). As one of a diverse range of responses, an increasing number of UK local authorities are becoming investors in local Renewable Energy (RE) as well seeking to enable others to do the same. Despite this, local authorities are struggling to establish local RE investment opportunities at the scale required to meet their Net Zero ambitions (National Audit Office, 2020; Billington, Smith & Ball, 2020; Tingey and Webb, 2020).

This research focuses on smaller local authorities¹ in the UK, drawing on evidence from councils in the two-tier local government structure in the East of England. The research seeks to answer the question; how effective is the way that RE investment decisions are reached in smaller local authorities to deliver Net Zero? The scope of the research is contextualised with its focus on investment decision-making which would require political approval according to the respective local authority's constitution and scheme of delegation. Using evidence from interviews with local authority professionals tasked with leading RE projects and secondary literature sources, the research explores the barriers to successful investment decisions and opportunities for improvement. The research then aims to draw together key insights to develop recommendations aimed to help smaller local authorities in particular improve their effectiveness when making decisions to invest in RE technologies as part of their wider Net Zero ambitions.

2. LITERATURE REVIEW

2.1 Context

Although the barriers preventing local authorities investing in RE projects as part of their Net Zero commitments have been extensively explored in the literature (Institute for Public

¹ Although the Local Audit and Accountability Act 2014 defines a "smaller authority" based on a qualifying condition that the authority's gross income and its gross expenditure for the year does not exceed £6.5 million, for the purposes of this paper "smaller local authorities" refers to councils within administrative areas in the UK where a two-tier county-district council structure exists.

Policy Research North, 2017; Brummer, 2018; Billington, Smith & Ball, 2020; Beechener et al., 2021; National Audit Office, 2020) the effectiveness of decision-making processes and associated arrangements, and how they apply in a local authority investment or delivery context for Net Zero is less well covered. It is notable that there is a general under-representation of smaller local authorities in the research literature (Kuzemko and Britton, 2020). The literature review draws on grey literature including government-funded research programmes, governmental and non-governmental policy and research, and material published directly by local authorities

2.2 *The local government response to Net Zero*

Local authorities are seen increasingly by UK Central Government as key delivery agents of Net Zero in their local areas (Evans, 2020; CCC, HM Government, 2017). Both the Government's Levelling Up White Paper (HM Government, 2021) and Net Zero Strategy put local authorities at the heart of a place-based energy transition in the UK, highlighting that through its various functions and points of impact '*not only does local government drive action directly, but it also plays a key role in communicating with, and inspiring action by, local businesses, communities, and civil society*'. (HM Government, 2021).

Although the Net Zero Strategy states that 82% of UK emissions are within the scope of influence of local authorities (HM Government, 2021) and refers to their statutory responsibilities within the Net Zero transition, there is currently no defined statutory duty on councils to deliver Net Zero in their administrative areas nor any coherent financial provision or resources for this purpose (Billington, Smith & Ball, 2020). To address the gap between national statute and policy to tackle Climate Change and a local democratic mandate, local councils across the UK have made their own commitments using the Climate Emergency Declaration taking the analysis presented in the Inter-Governmental Panel on Climate Change Special Report SR15 (IPCC, 2018) as the scientific basis and reflecting popular pressure from citizens and pressure groups (Extinction Rebellion, 2020). To deliver on their commitments, many councils have, or are in the process of, developing delivery plans and arrangements which include investing in RE technologies (Webb, Tingey & Hawkey, 2017). Notable progress is being made by some parts of the UK, notably the major economic principally urban regions where local authorities have been able to establish innovative and ambitious approaches, utilising their scale and leadership role; examples include Bristol City Council's recent selection of a strategic commercial partner which is predicted to bring £424M of forward private investment to deliver low carbon infrastructure projects (Bristol City Council, 2022), Leeds City Council's decision to invest £7.2M in the next phase of the city's heat network (Leeds City Council, 2022) and Warrington Council's investment of £60M to build 60MW of solar generation and 27MW of power storage (Warrington Council, 2022).

Such high-profile examples hide '*the reality facing local leaders*', the lack of a nationally coherent plan for local authority participation in Net Zero, insufficient powers '*to drive the big changes*' and insufficient capacity to act where relevant powers exist (Quantum Strategy & Technology Limited, 2021). Research by the UK Climate Change Investment Commission, representing the twelve largest cities and the thirty-two London Boroughs and the City of London which in total equate to 25% of the UK population, put the Net Zero investment challenge in a range between £112Bn and £206Bn across these cities (Beechener et al,

2021). Yet, local government investment directly in energy projects has yet to make a significant contribution to effect change in the energy system, in delivering for example less than 1% of local heat demand in 2017 (Tingey, Webb & Hawkey, 2017).

2.3 *Local government structure*

The nature of local government varies in structure, scale and function across the UK. Local authorities have specific institutional characteristics as the lowest autonomous unit of government that place them in a position of authority and influence at local level within a set of defining parameters. They operate under democratic representation which links their purpose directly to the local electorate with legal powers, duties and functional resources traditionally defined by central government (Ladner et al, 2016). Their longevity of purpose and wide scope to shape the places within their administrative areas puts them in a unique position within in the local economy and society to be able to “*leverage and influence through their services, planning and enforcement roles, housing, regeneration, economic development activities, education and skills services and investments*” Evans (2020).

2.4 *Local authority decision-making structures, responsibilities and processes*

Following passing of the Local Government Act 2000, Councils were given the flexibility to organise (or otherwise be directed to adopt) their political decision-making structure according to their constitution and standing orders following one of four operating models; a leader and cabinet (sometimes known as an ‘executive’), a committee system, executive arrangements with a directly elected mayor² or arrangements prescribed by the Secretary of State (LGA, 2022). In the first two models the strategy and budget for the organisation is set by a Full Council of all elected representatives. The cabinet comprises a sub-set of councillors who have been given the responsibility for a specific portfolio of council activity with powers and authority to make certain ‘key’ decisions relating to policy and spending that have been first agreed at Full Council while in the committee system these decisions are generally referred by the relevant committee for approval at Full Council (HM Government, 2012; LGA, 2022). Decisions may be devolved to paid staff with the scope and financial thresholds that apply set out in a scheme of delegation which forms part of the constitution. Investment decisions in councils are therefore dependent on, and a function of, the constitutional structure and internally agreed processes and thresholds of delegation with each council defining these according to their own circumstances having regard to the statutory framework that applies to local government.

2.5 *The role of scrutiny in local authority decision-making*

Scrutiny of government is defined as ‘*any activity that involves examining (and being prepared to challenge) the expenditure, administration and policies of the government of the day*’ (White, 2015). The primary purpose of scrutinising government should be to improve its effectiveness in terms of processes and outcomes (ibid.). The ability for others to scrutinise and hold decision takers to account for their decisions in public life is a key component of a well-functioning democracy (MHCLG, 2019).

² Directly elected mayors, as leaders of city regions usually based around an urban hub, were introduced as a way of devolving policy and investment delivery to improve efficiency by the Conservative-led central governments after 2010 (institute for Government, 2022).

The use of scrutiny within the political decision-making process in local authorities grew out of the agenda of modernising local government in the late 1990s (Maer and Sandford, 2004). Evidence showed that the decisions that were being taken were often decided along party lines, curtailing debate whilst conversely delaying decisions being made by virtue of the proliferation of committees (ibid.). The function of the Overview and Scrutiny Committee in local authority governance was established by the Local Government Act 2000, providing a statutory mechanism for non-executive members to scrutinise decisions that the executive *'is planning to take, those it plans to implement, and those that have already been taken/implemented'* (ibid.).

The role of scrutiny in local government has been the subject of review by Central Government with recommendations made by the select committee to the Ministry with oversight to improve the process (MHCLG, 2018). In particular, the Select Committee called for clarity on and assurance of the independence of the overview and scrutiny functions from the executive and more impartial advice and resources to support the work of the scrutiny process (ibid.).

3 RESEARCH DESIGN AND METHODOLOGY

3.1 Outline of methodological approach

A scoping literature review was undertaken to identify academic and grey research material centered on RE investment decision-making. The review specifically drew upon UK Governmental policy, publicly funded research and other non-peer reviewed literature. Discussions were held with the Energy Systems Catapult³ during the development of a local authority support programme, Net Zero Go (Innovate UK, 2022). The review informed the design of a qualitative interviews of local authority practitioners which sought their views and experiences, explored the effectiveness of their council's approach to RE investment decision-making as well as inviting suggestions on how decision-making process could be improved. The evidence was analysed using a semi-stratified thematic coding developed by the researchers which was applied using the qualitative data management tool, NVivo, to draw out common themes.

3.2 Selection of study geographical area

The study focussed on one geographical area of the UK, the East of England, where the two-tier structure of local government predominates. At the time of undertaking the research, there were fifty-four local authorities covering the East of England of which forty-one borough or district councils and four county councils (Table 1). Although, this paper does not present a comparative analysis of the urban versus rural settings, it gives exposure to the issues faced by non-metropolitan, two-tier local authorities revealing insights and solutions which may have a more relevance to smaller authorities.

3.3 Practitioner interviews

³ As part of Innovate UK, the Energy Systems Catapult is an independent, not-for-profit centre of excellence that bridges the gap between industry, government, academia and research. The Catapult's purpose is to accelerate the transformation of the UK's energy system.

A purposive approach to interviewee selection was followed based on the knowledge of the research team and discussions with representative organisations including the Greater South East Net Zero Hub⁴ and the Energy Systems Catapult. One-to-one interviews with Local Authority staff were conducted following a semi-structured questionnaire initially developed in collaboration with the Energy Systems Catapult and subsequently extended by the research team to gather organisational information and participant insights of decision making.

Based on research by Sim et al (2018), a target sample size was set between ten and fifteen local authorities with a minimum of one interviewee per local authority, the upper figure corresponding to 33% of the population (N=54). In total, seventy local authority staff from thirty-seven local authorities were approached. This generated twenty-two interviews with twenty-five staff actively involved in RE projects across twenty-one (46%) of the local authorities in the geographical area.

All who were invited to participate had direct involvement in local energy and Net Zero activity in their respective local authority and represented a variety of roles and seniority from across the disciplines of Sustainability, Climate Change, Energy Management and Investment, Economic Development and Regeneration, Corporate Policy, Spatial Planning, Housing and Public Estate Management.

The interviews were conducted between October and November 2021. Each interview was recorded and transcribed using Microsoft Teams™. Following the interviews, recordings and transcriptions were initially reviewed by the researchers to correct any mis-transcription. The corrected transcripts were uploaded into the NVivo™ qualitative analysis software (Release 1.5.2) with key text coded against a classification developed for this research to thematically group components of each transcript (Table 2).

3.4 Research ethics, limitations & dealing with bias

The research was undertaken in accordance with an approved academic ethics committee research protocol developed for a wider research programme with the data-gathering process and any subsequent data management undertaken in accordance with the General Data Protection Act 2018 using principles set out in the Market Research Society Code of Conduct (MRS, 2019). Each interview transcription was given a unique reference code to track comments in a way that ensured interviewee anonymity.

The potential for building in bias was recognised at the design stage, given that the research approach draws on the experiences of individuals. A decision was taken to select potential candidates for the interview process by two criteria: local government administrative structure and geographical area. Furthermore, the research literature identified during the literature review demonstrated that this sort of research approach could not guarantee consistent or defined sample sizes. There may have been self-selection bias, with interviewees offering to participate for several reasons including their availability at the time of the research process and their appetite to participate. The defined structure and

⁴ The Greater South East Net Zero Hub is one of five hubs funded by BEIS covering England. Its role is to increase the number, scale and quality of local Net Zero projects being delivered across the Greater South East region of England.

way that interviews were conducted, for example following a series of thematic questions to illicit qualitative responses, the use of MS Teams platform rather than face-to-face, a maximum of two interviewees per interview, and a maximum one-hour duration, shaped the lines of enquiry that were followed and to some extent how each interviewee responded. An attempt was made therefore to identify, assess and plan to mitigate for the potential impact of bias in this research with the production and application of a risk identification and mitigation log which formed part of the survey protocol. One of the risks whilst designing the research was the COVID-19 pandemic which led to the use of virtual interviewing which may also have shaped participant responses. However, the researchers considered that this had minimal impact on the participation rate.

4. RESULTS AND DISCUSSION

4.1 Staff roles and resourcing

All who were invited to participate had direct involvement in local energy and Net Zero activity in their respective local authority and represented a variety of roles and seniority from across the disciplines of Sustainability, Climate Change, Energy Management and Investment, Economic Development and Regeneration, Corporate Policy, Spatial Planning, Housing and Public Estate Management.

When asked about their role in Net Zero delivery within their organisations, only three of the twenty-five interviewees declared that their role was dedicated to Net Zero activities (2021-11-08[1], 2021-12-03, 2021-10-05[1]). Three interviewees each held roles in more than one local authority. Those with dedicated roles had been appointed to their position within the last year with two post holders employed on fixed term contracts linked to the Council declaring a Climate Emergency (2021-12-03 and 2021-10-05[1]) which tends to align with research published by the Local Government Association which found that half of local authority respondents responsible for RE investment were in short term contracts (LGA, 2022). Previous research by the authors showed that in declaring a Climate Emergency, the first commitments made by smaller local authorities was to allocate a staffing budget over a fixed term (Gudde et al, 2021).

Lack of staff and financial resource was a core theme across the research with several interviewees seeing this as a particular problem for smaller local authorities (2021-10-27C), the impact of long term under investment in public services (2021-10-05[1]C), that officers in smaller local authorities in particular tended to be the sole resource taking forward the Councils Climate and Net Zero activity (2021-11-09C, 2021-10-05 [1]C), a reflection of the piecemeal approach being applied across the government (2021-11-09C), and focussed the drive for return on investment rather than wider co-benefits of Net Zero (2021-10-13C).

The circumstances identified by the interview sample also align with findings of published research (UK100 Powershift, Core Cities, NAO CHECK), although despite their ambition the plight of smaller local authorities is likely to be worse since they are more likely to lack the capacity, capability and unified political agency observed in the participants in the Core Cities programme, for example (UKCIC, 2022). Given the limited staff resources available in smaller local authorities they may also be less able to apply the structural delivery solutions

available to their larger city equivalents (Webb, Tingey and Hawkey, 2017) with only the county councils (n=3) in the interview sample establishing dedicated teams or units.

Resource-sharing across local authorities were considered worthwhile opportunities (2021-10-07C, 2021-11-09[1]C, 2021-10-15C, 2021-11-25[1]C, 2021-11-25C); as one interviewee commented, *‘how many local authorities are there in England? I mean, you know 150 or whatever it is and we’re all trying to do this individually’* (2021-11-25C). Solutions were put forward to address the observed duplication including establishing strategic partnerships between local authorities in common geographies or with common challenges to share resource and experience (2021-10-15C, 2021-11-25[1]C).

The lack of competent teams or business units or resource-sharing between organisations leaves the Net Zero ambition of some councils in the interview sample under the responsibility of what other researchers term a single *‘wilful individual’* (Tingey and Webb, 2020). The characteristics of some local authorities employing a single officer with limited knowledge of the internal organisational decision-making processes, or agency given that those who were appointed may hold low or middle rank of seniority without the appropriate budget required mirrors the local government response to Sustainable Development Local Agenda 21 commitments following the Rio Earth Summit in 1992, the adoption of the Nottingham Declaration on Climate Change in the early 2000s and its successor the Local Government Association’s Climate Local Commitment (Gudde et al, 2021).

4.2 The role and contribution of local politicians

Views were expressed that local politicians continue to be averse to investing in RE technologies with councilors not wishing to see public expenditure on Net Zero (2021-11-08[1]C) or exposing the council to challenge (2021-11-29C, 2021-12-02C). There was tension between interviewees who considered it beneficial to have well-informed, directly involved councillors with a deeper understanding of Climate Change or Energy-related issues and others who felt that that this would either be unachievable or even counter-productive to the decision-making process (2021-12-02C, 2021-11-25[1]C). Several interviewees commented upon the depth of knowledge observed in and understanding of the issues by politicians, with one asking the question *“Do the politicians really understand what we need to do to get our carbon emissions to zero? No, no they don’t”* (2021-11-25C, 2021-11-09[1]C). Others commented that the language of Net Zero was one with which politicians struggled (2021-10-04C) and this had a direct impact on the level of engagement and the political approach to policy making (2021-11-25C, 2021-10-04C).

Concern or frustration was expressed at how politicians came to decisions on RE investment and the duplication of work that was created by a decision-making process, whether real or perceived, that was not designed to manage this type of project (2021-10-13C[2], 2021-10-27 [1]C). Two respondents summarised succinctly the subjective nature of decision-taking that they had observed where decisions either follow political party lines and alliances or vetoed by key decision-takers (2021-12-02C, 2021-10-07C). One interviewee highlighted the way that politicians shifted focus and wavered in their support, in this case for Net Zero activity, as they approach re-election (2021-10-04C, 2021-11-25[1]C). Two interviewees stated that this problem was made worse by the political cycle with politicians shifting their

focus and positions on Net Zero based on the way the electorate could vote (2021-11-25[1]C, 2021-12-03C).

Most telling were comments made by two senior officers on their experience of presenting proposals to politicians, *“I don't think some of them get the climate change thing.”* (2021-10-05[2]) and *“we've made this, dare I say, bland pledge about what we're going to do, but the devils in the detail.”* (2021-11-09[1]C). One interviewee considered that their politicians and senior officers had missed the focus and tended to fixate on issues and solutions that were peripheral to the core needs, referring to this as *“climate bling”* (2021-11-09[1]C). This called for a cultural shift in both thinking and approach to the Climate challenge (2021-11-25C).

Although not explored in detail during this research, the interview responses suggest that a significant gap remains between the ambition of local politicians to established through the Climate Declarations of local authorities and the political understanding of what needs to be done, along with the role RE investment could play, in achieving Net Zero (Howarth, Lane, & Fankhauser, 2021). The Local Government Association, as the national membership body for UK local authorities, has looked to address such concerns by developing a suite of resources for place-based Climate leadership and communication including a Councillor Climate workbook, Climate Literacy training for executives and senior officers in order to help them understand and communicate the issues to members and staff in a clearer way , and guidance for those involved in scrutinising climate-based activities and decisions (LGA, 2022).

4.3 *Organisational structures and processes*

In the context of investing in RE technologies, interviewees were generally consistent in their support for, and recognition of, the value of the politically democratic decision-making process. Several interviewees referred to the need for transparency, accountability and evidence-based decisions being made despite the apparent burdens this creates (2021-10-07C, 2021-11-09[1], 2021-10-05C).

The research showed that RE investment decisions are being shaped by internal influences beyond the formal governance structures in local authorities. Interviewees described the informal ways that RE investment decisions are influenced, with one commenting that *“there's a lot more informal briefing that we have to do to land the idea and get the Politicians are [sic] comfortable with it and understand why they need to do it before we go anywhere near that formal governance process”* (2021-11-25C). Several interviewees referred to non-decision taking groups or panels with a range of remits and compositions (2021-10-27 [1]C, 2021-10-04C, 2021-10-05C, 2021-10-15C, 2021-10-27 [1]C, 2021-11-09[1]C, 2021-10-27C, 2021-11-09C, 2021-11-25C) which are *“agile smaller... providing political advise [sic] and steer”* (2021-09-30).

Contrasting views were expressed regarding the ease at which decisions on RE technology investment could be achieved; two interviewees considered that their decision-making processes were sufficiently stream-lined and facilitated by politicians supportive of the Net Zero agenda (2021-10-07C, 21-10-06C). Interviewees cited as obstacles the lack of tested decision pathways for RE investment (2021-11-09[1]C), the complexity of the processes that need to be followed (2021-10-07C, 2021-11-29C, 2021-11-25C, 2021-10-27 [1]C), the re-work created by multiple layering of decision makers (2021-10-07C), issues of trust in the

advice provided by paid officials (2021-10-27[1]C) and perceived burdensome procurement protocols (2021-10-13C).

Those who brought experiences from the private sector specifically commented both about the time taken and complexity of the investment decision-making process in their local authority compared to the private sector, suggesting a desire for streamlining to be able to accelerate decision taking to match the problem being addressed (2021-10-05 [1], 2021-12-03C, 2021-10-05[2]C). Webb (2019) describes this conundrum as *'a multitude of decisions each of which could be made differently, including deciding to act with necessary urgency on climate change'*.

4.4 *The role of scrutiny*

The role and competence of those who undertake scrutiny in local authorities has been highlighted as potentially powerful tool for improving standards in RE investment decisions. The UK Government's statutory guidance reinforces this point, includes *'the training requirements of scrutiny members and support officers, particularly the support needed to ask effective questions of the executive and other key partners, and make effective recommendations'* as well as providing ad hoc support where expertise does not exist in the organisation (MHCLG, 2019). It is not simply about budgets and staff provision but also about the ways in which wider local society engages with those who conduct the council's scrutiny function, *'where a committee is made up of members who have the necessary skills and commitment, it is far more likely to be taken seriously by the wider authority'* (ibid.).

There was a call for more effective scrutiny by two interviewees who considered that more exposure to independent challenge would both raise the level of democratic discourse on Climate Change generally and help to reduce the risk of politicians being exposed to negative public opinion (2021-10-05[2]C, 2021-10-27[1]C) while the inclusion of informal advisory panels were viewed by several interviewees as partially fulfilling a scrutiny check and balance mechanism in the absence of what was deemed to be an ineffective constitutionally-defined overview and scrutiny process (2021-10-05[2]C), 2021-11-09[1]C).

Concern for better scrutiny echo comments made by Clive Betts MP In his statement to the House of Commons during consideration of the 2018 Select Committee report, when he argued for a stronger role of overview and scrutiny as part of the decision-making process in more complex areas of local authority work *'rather than simply looking at something after the event, take policy initiatives and help to develop policy'* (Hansard, 2018). Betts further called for wider participation of external stakeholders in this process, extending to specialist expertise and the involvement in the public (ibid.). In the context of RE, local authorities could use this externally accessed contribution to positive effect since it could help to develop their understanding, approach, and capacity to formulate stronger investment cases.

4.5 *Investment funding and finance*

There was almost complete unanimity amongst interviewees that the availability of funding and finance across the project development process was a key barrier to successful delivery. Lack of project development funding at feasibility and business case development stages meant that RE investment opportunities withered on the vine or led to local authorities

missing funding opportunities (2021-10-06C, 2021-10-04C, 2021-11-09C). One interviewee described an internal culture where they had to *'beg and borrow feasibility money from wherever we can find it'* (2021-10-05[2]C); another stated that local authorities needed to *'get smarter at what's the mechanism...to translate those ideas into genuine opportunities that are worth pursuing'* (2021-11-25C).

Establishing budgets for more novel and innovative project ideas was seen as one solution acknowledging that this would need to be treated as *'risk capital'* and that currently new ways of raising capital, for example through climate bonds, faced internal resistance to the adoption of what may be perceived to be higher risk approaches (2021-11-25C). At the core, interviewees called for locally controlled budgets (2021-10-13C, 2021-11-25C) since local authorities are expected by national government *'to carry the burden'* of Net Zero at local level (2021-10-27C).

For local authorities to attract the scale of capital required, whether to meet their own ambitions to decarbonise their own estates and operations, investing RE technologies or enable area-wide decarbonisation, there needs to be *'a change in mindset away from grant funding towards returns-based investment and innovation in financial structures'* with recognition that RE projects in particular would be viewed on the basis of investment return with development capital allocation part of the capital repayment model (Beechener et al, 2021). This is likely to need higher levels of understanding of the value and relevance of non-governmental investment products to support RE project development, be that within local authority finance teams, key stakeholders involved the decision-making process or officers responsible appointed for the proper administration of a council's affairs.

4.6 *Developing integrated policy and finance solutions*

A commonly expressed view was that Central Government needs to mandate the Climate Emergency role of local government, with a key component being the capability to invest in Net Zero delivery (2021-11-25C, 2021-10-13C, 2021-10-27C), a consistent recommendation made in Net Zero research (Committee on Climate Change, 2020; UK100, 2021). However, in the absence of new powers and duties for local authorities, local solutions are needed which enable local authorities to act within their democratic frameworks yet deliver RE projects at pace to meet Net Zero ambitions.

One district council interviewee cited their approach which has led them to be a significant investor in RE power and heat generation in their local area; they had established clear policy architecture aligned to the organisation's corporate priorities for growth, local investment and decarbonisation; multi-year facilities which allowed them access to capital and streamlined decision-making processes (2021-11-25[1]C). This had enabled them to drastically reduce the time to make RE investment decisions resulting in them growing their RE portfolio. Except for one upper tier authority, this level of sophistication was not observed across the interview sample.

5. Conclusions

As Local Government endeavours to deliver UK national and locality-based Net Zero commitments, the evidence gathered during the research suggests that smaller, more rural councils are likely to experience steeper learning curves than more urban, unitary authority

counterparts to understand both the Renewable Energy (RE) technologies and the most appropriate way to secure investment. Given the scale, complexity and timescale of the Net Zero challenge, all components of the internal decision-making environment of local government will need to operate more dynamically and interact with routes to investment to which these organisations have never been exposed (Beechener, 2021).

The research presented in this paper shows that local authorities can develop new approaches to accelerating RE investment decisions that could be applied more widely across smaller councils across the UK. These include the use of collaboration, establishing investment policy frameworks which make it easier to take individual RE investment decisions, having access to risk capital so that early-stage project development can advance more quickly in a dynamic market environment, developing high levels of trust between project development teams and those that have an influencing or decision-taking role. These solutions could be support opportunities for Central Government in the absence of mandating local authorities to deliver Net Zero in their local areas.

The research suggests that the approach adopted by smaller local authorities to staffing to co-ordinated the delivery of Net Zero is driven by financial necessity. This could be an effective way of utilising scarce resources. However, it reflects failures highlighted by the literature of the under-resourced nature of some local authorities to deliver Net Zero and the consequential hard choices that must be made to allocate scarce officer capacity and the relative nascence of Net Zero as a council function. The ability of smaller local authorities, as well as some of their larger counterparts, to employ dedicated Net Zero staff is likely to remain challenging while *'funding reductions have had on local authorities in recent years, including the reductions in spending on areas where authorities have flexibility in how much and when to spend to fulfil statutory roles'* (NAO, 2020 p.37). The development of specific research, training and support, for example through the central government-funded EnergyRev and Innovate UK programmes, membership-based organisations like APSE, and regional forums and networks could alleviate the pressure and accelerate local authority Net Zero delivery if effectively coordinated and deployed.

The evidence presented in this research suggests that smaller councils face a bigger challenge than their city equivalents given the lack of resources and ability to create investment opportunities at the scale to be able to lower transaction costs (Webb, Tingey and Hawkey, 2017).

Elected councillors as representatives of the community provide a vital role both in the decision-making process and as a means of engaging with citizens. The quality of councillor understanding of Climate, Net Zero and specifically RE as an investment opportunity need addressing. This could be achieved through the enhancement of awareness training developed nationally such as the Local Government Association's Members Climate Playbook; services provided by local authority support organisations like the Energy Hubs, UK100 or the Association of Public Service Excellence, the proposed Net Zero Leaders Forum (Local Government Chronicle, 2021) or sub-regionally using local authority climate forums and collaborations as vehicles for change.

The research shows that the democratic and political nature of local government both legitimises and binds their investment behaviours. Focusing this research on smaller local authorities and their contribution to Net Zero through RE investment provides a complement to the city-based research highlighted in the literature. Such insights of RE practitioners in small borough and district councils in the East of England could help frame appropriate solutions to decision-making in similar institutions across the UK. Furthermore, it may help avoid creating a two-speed Net Zero delivery landscape in the UK with urban councils leaving smaller, more rural authorities behind.

Table 1. Practitioner interview count

	Total	District and Borough Councils	County Councils
Total number of councils in the study area	54	41	4
Approached for interview	35	32	3
Interviewed	21	18	3
Percentage interviewed in tier	-	43.9%	75.0%
Percentage interviewed in the study area*	46.7%	40.0%	6.7%
Total number of staff interviewed	25	20	5

* Excludes unitary local authorities (n=9)

Table 2. NVivo code classification applied to the LA practitioner interview transcripts

Code	Sub-code	Number of Files reviewed	Number of References found
Barriers		17	45
	External	4	5
	Internal	9	15
	Investment finance	16	37
	Procurement	4	5
	Staff resourcing	9	22
Changes required		15	50
Decision influencers		12	26
Decision takers		7	11
Decision taking		14	37
	Approval criteria & thresholds	7	11
Interviewee characteristics		2	2
	LA Job title	20	22
	Responsibilities	13	36
Interviewee perspectives		14	43
Political process		5	6
	Political structure	20	39
	Politicians	12	27
Stakeholder engagement		6	9
Stakeholder involvement		4	5
	External	7	12
	Internal	4	7
Types of activity		1	4

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