

Committee: Strategic Infrastructure Development Group
Local Plan Leadership Group

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Title: Decarbonisation and Water Management: Scope of Work

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Summary

1. The report sets out the issues relating to and the proposed scope of work to address how the Local Plan can address climate change mitigation, resilience, adaptation and achieving net zero carbon and water resource management in preparing the Regulation 18 Draft Local Plan. The Strategic Infrastructure Delivery Group received a presentation from Greater Cambridge on 1st March on decarbonising the electricity grid and in the context of addressing climate change how this was being integrated in the local plan process including assessing their emerging spatial strategy. Uttlesford Members share similar strategic climate change ambitions and as advised by the Project Review Group are also looking outward to partnership working and alignment on key areas of infrastructure. This report recommends an approach to addressing climate change issues within the context of both this wider perspective and what is feasible within the parameters of the local plan process

Recommendations

Strategic Infrastructure Delivery Group

2. (1) The Group is invited to comment on the contents of the report on the scope of work proposed
3. (2) To agree that Brief be prepared to commission consultants to undertake work on establishing baseline, targets, and appropriate policy areas integral to climate change, water resources and decarbonisation matters
4. (3) To consider how to work strategically including potential joint working with the Greater Cambridge Authority and other strategic organisations as relevant

Local Plan Leadership Group

5. To note the contents of the report.

Financial Implications

6. The approved budget for the Local Plan 2021-22 includes sufficient provision for the commission and associated work as part of the Council's approved Medium-Term Financial Strategy.

Background Papers

- Uttlesford Local Plan Project Initiation Document
- Uttlesford Local Development Scheme
- Council approved Interim Climate Change informal policy, February 2021

Impact

7.

Communication/Consultation	The draft Local Plan timetable builds in stages for representations on the draft Local Plan but this work will need to be completed by the end of this year.
Community Safety	N/a
Equalities	N/a
Health and Safety	There is no direct implication but the work on water management will cover scarcity and localised flooding that may have a health or safety impact.
Human Rights/Legal Implications	The preparation of the local plan is a statutory duty and must meet legal tests and comply with regulations.
Sustainability	The focus of proposed study is sustainability and the mitigation of climate change; it explores how the local plan can contribute to the corporate goal.
Ward-specific impacts	All
Workforce/Workplace	N/A

Situation

8. On 20 October 2020 the Cabinet approved the Uttlesford Local Development Scheme and as we approach the end of the initial Issues and Options/Call for Sites consultation we are shortly to move into the next stage in the preparation of the Regulation 18 Draft Local Plan. In relation to climate change we require an evidence base to support the Local Plan to help ensure that our District's settlements, connectivity, public realm, landscape and the essentially rural nature of much of its economy and land use respond

to the Climate Emergency and deliver net zero carbon development. The Council's climate emergency ambition is to achieve net zero carbon across the district by 2040 though this needs to be viewed in the context of the Government's announcement on 20th April 2021 that their Carbon target is to be brought forward by 15 years and that there is to be a 78% reduction in emissions by 2035. Government has highlighted electric car travel, low carbon heating and renewable energy through electricity as some of the key planks to this ambition.

9. Consultants will need to reflect this. Officers would use local and national targets to inform future SPDs and guidance notes such as refinement of the informal SPD on climate change, future Neighbourhood Plans, and crucially local plan policy on topics such as decarbonisation, green infrastructure, water management and renewable energy.
10. Moreover we should also recognise that we need to look beyond the boundaries of the District in relation to green and carbon infrastructure, and to explore where working with other authorities in the sub-region, at Essex and particularly Greater Cambridge will add value and robustness to our approach. To this end officers are actively engaged in the Essex Climate Change Commission, and have a meeting arranged with Greater Cambridge to explore joint working on these issues.
11. An essential part of infrastructure and a particular issue for the northern and western parts of the district is water management: its supply, transport, storage, river course flows and extraction, usage, disposal, and underlying infrastructure including technologically SMART monitoring. The Infrastructure Development Plan (IDP) will address the infrastructure deficit and demand issues. However, there is a wider concern over the *management* of land and water and at a wider scale to produce a plan that is environmentally sound and achieves its climate change adaptation, mitigation, and resilience objectives.

Overview of a Strategic Approach

12. In order to use the Local Plan to shape places in ways that contribute to radical reductions in greenhouse gas emissions and improve resilience we recognise that we need to embrace working with stakeholders, communities and co-operate with strategic partners to consider several issues:
 - Through the Local Plan to secure a sustainable spatial distribution of growth in the District that optimises use of materials, water, travel patterns to reduce carbon impact whilst achieve viable delivery and practical, timely, funded associated energy and water infrastructure. This may use decarbonisation as a criterion in the preferred options assessment reflecting the approach in operation at Greater Cambridge.
 - Have regard to the RTPI advice in "*Planning for a Smart Energy Future*" that "the pace of technological innovation suggests planning strategies should avoid prescribing technologies, so as to avoid limiting the use of emerging and future technologies that best fit local need, opportunity and economic

viability”. Our proposed Strategy should allow for future development phases and technological advance that will dovetail with the IDP.

- the regulation of development from a climate change perspective, beyond basic Building Regulations to help meet tough targets (more quickly) together with a conditional imposition of a monitoring and review process to ensure compliance and effectiveness.
- how to facilitate commercial scale renewable energy and solar infrastructure and improvements to support the grid such as energy storage, community networks, rural economic diversification.
- How to ‘offset’ any remaining emissions from new build where developer contributions could be spent on retrofitting existing buildings, heritage areas, public realm as part of a locally based offsetting scheme, possibly in partnership with a scheme with the County or Greater Cambridge?
- Assess the potential for the designation of areas that will serve to sequester carbon, in addition to enhancing biodiversity and water management, working with landowners and environmental managers.

13. In consideration of the preferred spatial option regarding carbon impact and appropriate sound policies, the Local Plan should address the following issues for which we need consultancy advice:

- i. The need to apply a targeted and evidenced set of viable policies that minimise the use of embodied and operational carbon across sectors including renewable energy generation for heating/cooling, and power, waste control, transport, building fabric, all water usage, green infrastructure. These policies will embrace those relating to health and wellbeing, land management, biodiversity, and digital technology
- ii. The requirement to reduce carbon in existing stock and to maximise carbon sequestration e.g. through tree planting. Retrofitting existing buildings and particularly in heritage areas will rely on parallel programmes of activity, grant funding and the cooperation of land and property owners. However, where new development proposals adjoin or encompass existing buildings there is opportunity to address the ambition to achieve net zero carbon more holistically, working with developers
- iii. How to ensure that not only are new buildings and public streets and spaces designed from a net zero carbon perspective but also their implementation, system monitoring, operation and system maintenance. In our approach to the local and ‘green’ adequate skills and companies with the know how to implement and maintain new systems and to drive and invest in new technology. This background and supporting hard and soft infrastructure will approach beyond the District boundaries and but needs to be planned for and promoted through the Local Plan and strategic working

Water Management

14. The consultancy commission would need to look at water management from a water catchment perspective, working with water companies, the Environment Agency and Greater Cambridge regarding the River Cam/Granta.

15. The work would cover:

- Water supply v demand
- Potable water supply and efficiency of use
- Surface water management, SUDs, and local Flood Risk
- Rainwater harvesting – domestic, commercial, highway, farmland
- Wastewater (foul)– collection, disposal, treatment capacity
- River and ground water quality, abstraction, wildlife
- National standards and water company guidance/strategy
- New or upgraded infrastructure, costed, location
- Planning policy and accommodating growth
- The extent to which the district could become ‘water neutral’ with no net increase in water demand between the current use and once development over the plan period has taken place i.e. technology needed to deliver water-efficient development, availability, funding, feasibility, and crafting policy to enshrine this.
- Potential water retrofitting programmes to match mandatory national standards for new housing development
- Water needs by agriculture for green/blue abstracted and grey water uses in an integrated water management strategy- water capture, rainwater harvesting, flood mitigation, targeted irrigation techniques, drought tolerant crop types etc and how planning policy can encourage this.

Draft Scope of Commission

16. Officers would ensure close liaison with the IDP consultants whose brief includes an assessment of new or adapted infrastructure to take account of climate change matters. This Brief would require:

- i. A context review of literature, innovative approaches from utility providers and good practice examples on the ground and other local plan policy such as the new London Plan. This will set out the role of the local plan in delivering net zero carbon development identifying the extent to which the plan can influence development, behaviour and decarbonisation. We will need a working definition of Net Zero Carbon and statistical analysis of carbon (and GHG) emissions by land use or sector.
- ii. Clarification of robust carbon reduction targets relating to the role of the built environment and green infrastructure, management /stewardship in delivering net zero carbon, how to maximise renewable energy within environmental and technical constraints.
- iii. Review of existing and anticipated standards in energy and water usage deriving from building regulations, BREEAM and legislation such as the Environment Bill and Future Homes standards etc

- iv. An overview of potential for technological response and innovation for infrastructure requirements from utility companies, land managers, green sector business – working with the IDP consultants.
- v. An assessment of implications of the spatial strategy on carbon emission and ability to achieve the net zero carbon targets with preferred growth patterns; as above, consideration of need for a carbon offset fund to assist retrofit, viability, heritage areas etc.
- vi. Advice on a monitoring system for the implementation and operation of designs and buildings approved through the planning process to ensure compliance; check that targets are *en route* to achievement with corrective measures as appropriate; consideration of the role of the developer e.g. potential use of penalties/bonds to enforce this.
- vii. An assessment of the feasibility of achieving net zero carbon for different types of development: residential, non-residential, new build, redevelopment of existing, all with regard to the preferred spatial growth strategy. This will include cost implications of net zero carbon development and other policy requirements including upfront costs for the developer and potential running cost savings for residents, building occupiers/operators, electricity grid reinforcement/ smart energy - in liaison with IDP consultants.
- viii. Develop an approach/guidance that seeks out methods for carbon sequestration, working with farming communities with greatest opportunity for gain in an integrated approach to resources management benefiting water, biodiversity, and rural economic diversification

Officer Work Programme

17. In relation to this proposed commission officers' primary role would be to

- Undertake further discussions with adjoining strategic interests and particularly the Greater Cambridge Authority
- Agree the scope of a brief and procure consultants
- Manage the project, to time and budget and work with stakeholders and partners as appropriate
- Consider the outcome of the work, report to Members and integrate into the draft Plan. The Appendix adds detail to this work regarding work activities and timescales.

Conclusions

18. There are clear gaps in our understanding of the existing situation regarding water resource management and reducing the different sources of carbon embodiment and emissions across the District. We need to establish the baseline, clear goals and a pathway that is informed by processes of assessment of the submitted site development

proposals and preferred options to help address the Council's corporate goals around climate change. Undertaking this study will form part of the evidence that will work alongside the sustainability and viability assessments of the Local Plan and form an essential baseline to achieving the core goals of the Council.

Risk Analysis

19.

Risk	Likelihood	Impact	Mitigating actions
That the commissioned work is not completed in time	2 –there may be delay in refining the brief or in identifying a suitable consultant that will cause delay.	4 – without this study it will be difficult to formulate appropriate policies and undertake a carbon-based assessment of the spatial strategy and site proposals	The brief will be completed and ECC will issue the tender as a priority under the existing SLA, benefitting from our recent based experience on six similar exercises
It may take time to identify common ground and to an agreed timeframe with Greater Cambridge Authority (GCA)	2	2	Early discussion with the GCA will identify areas of mutual benefit and a combined project team will be set up to co-ordinate, oversee there and assess the implications in local plan terms of the outcome
The work may identify issues that are difficult address in the local plan	3	2	Any proposals and projects required to address issues identified will be considered in relation to sound and appropriate policies. Where this is not the most appropriate approach through the development process the Council's Climate Change Working Group can complement the role using its budget, the newly appointed Climate Change Project Officer to undertake specific projects and complement the policy and spatial focus of the local plan.

1 = Little or no risk or impact

2 = Some risk or impact – action may be necessary.

3 = Significant risk or impact – action required

4 = Near certainty of risk occurring, catastrophic effect or failure of project.

APPENDIX: Using the Local Plan to Provide the Infrastructure to Support the Council's Decarbonisation and Net Zero Goals *DRAFT activities*

Stage	Activities
<i>I- Establishing the Carbon Reduction Pathways</i>	
I-1	20. Commission research study into establishing the current carbon baseline as far as possible for the whole district for the performance of existing buildings, transport movements, agricultural practices, and other land uses, considering GHG where relevant
I-2	21. Identify an 'as is' pathway to decarbonisation assuming limited growth
I-3	22. Identify clear carbon targets and trajectory for their achievement including Retrofit
I-4	23. Identify the water cycle, stress areas, supply, and demand for existing residents, trends
I-5	24. Identify water company strategies and (SMART) funding projects over the next 5-10 years to take account of capacity required for 14,000 homes
I-6	25. Identify key issues and how they can be addressed through planning
I-7	26. Identify good practice examples in the carbon areas of waste, water, energy, Green Infrastructure, transport, build construction, retrofit, heritage areas. land management, construction supply and waste
	27.
<i>II-Testing the Growth Scenarios for Impact on Achieving Net Zero Carbon and Greenhouse Gas Reduction</i>	
II-	28. Consultants to take each spatial strategy option and assess with regard to impact on carbon emissions reduction, including potential for new technology, transport, and active travel modes, and to maximise (community) renewable energy generation and storage and minimise water use and loss. This work would be alongside financial viability studies in the IDP commission.
II-2	29. Separately assess impact of green infrastructure and biodiversity gains and integrate with decarbonisation recommendation
	30.
<i>III-Carbon Footsteps for the Preferred Option- Target Timeline and Policies</i>	
III-1	31. Identify key actions required regarding spatial strategy, need for policy areas, further technical and evidence-based work if necessary, including good practice elsewhere in Local Plan policy and DPD/ SPD, TPCA RICS, RTPi and ECAC; technical feasibility assessments as necessary
III-2	32. More detailed viability as necessary
III-3	33. Consider developer sustainability/energy/water checklist
III-4	34. Carbon offset fund across District/County?
35.	36.
<i>IV-Deliverability – Local Plan policies, Funding, Projects, Community Engagement and Leadership</i>	
IV-1	37. Identify measures essential prerequisites to successful integration including engaging with community, parishes, developers, landowners, utilities, business enterprise, skill centre; identify sources of external funding; Communications Strategy; behaviour modification and education; political and local leadership, detailed viability
	38.

Possible Timeline

<i>April 2021</i>	<i>May 2021</i>	<i>Jun 2021</i>	<i>July 2021</i>	<i>Aug 2021</i>	<i>Sep 2021</i>	<i>Oct 2021</i>	<i>Nov 2021</i>
Agree scope of work	Agree approach with SIDG and Climate change Working Group	Set up Project management team and ensure liaison with IDP	Baseline reporting on existing emissions,	Initial carbon assessment against growth options	Refine Testing against emerging spatial strategy to identify carbon impact and policy/ measures following Cabinet decision	Draft local plan policies and identify need for SPD/DPD/ sustainability checklist	Incorporate in draft Local Plan
Prepare Consultancy Brief(s)	Procure external expertise	Baseline studies of existing carbon, solar, renewable energy picture across the District	Potential policies for new build and placemaking including best practice elsewhere; identify opportunities for GHG reduction	Report to Cabinet for 2 nd September (settlement hierarchy and outline strategy)	Outline feasibility and Viability assessments	Identify need and potential sources of external funding	Work with Climate Change Working Group on landowner and developer agreements, community engagement etc