

Local Authority Climate Action Plans

Local Area Energy Planning Framework

December 2021



Purpose of this document

- This document forms an appendix to our Whole Systems Strategy (Appendix 19b of the RIIO-ED2 business plan)
- In our Whole Systems Strategy we commit to mobilising a Local Area Energy Planning team to engage with Regional/Local Authorities to aid the assessment of their Climate Action Plans, and incorporate schemes into our DFES scenarios, where appropriate
- This commitment was formed following research and Local Authority engagement through the business planning process, in order to inform our proposed approach
- This document summarises the research that informed our proposals, and the learnings gained to date from stakeholder engagement.

Context

Ofgem has given a clear steer that Local Area Energy Planning is a key enabler for furthering decarbonisation ambitions both locally and nationally, and that DNOs can and should engage with Regional/local Authorities to support business planning for RIIO-ED2

- Local Area Energy Plans (LAEPs) are the output of a process that agrees the optimal long-term energy solution for an area through the assessment of different solutions and engagement with a range of local stakeholders.
- In its SSMD publication in December 2020, Ofgem highlighted the potential for local area energy planning to enable heat decarbonisation and Net Zero energy systems.
- It also highlighted that LAEPs can improve the evidence base for network companies to justify investment as part of the RIIO-ED2 price control
- Several of the Regional/Local Authorities in UKPN's license areas have stated bold ambitions for decarbonisation (including the GLA), going beyond government requirements for Net Zero by 2050.
- Given the importance of electrification to decarbonisation, these authorities will not be able to achieve their ambitions without heavy DNO involvement – in the planning, securing regulatory approval for investment and deploying network upgrades and new infrastructure.
- As part of the RIIO-ED2 business planning process, UK Power Networks (UKPN) has the opportunity to exhibit leadership in Local Area Energy Planning and demonstrate how it intends to support Local Authorities in delivering on their decarbonisation ambitions.

Contents

- Initial framework research and design
- Local Authority engagement on framework design
- Tier 2 framework development
- Engagement post Initial Business Plan Submission
- Letters of support received to date
- Proposed services to support LAEP development

Summary

Local Area Energy Planning – literature review and subject matter expert engagement

- Following a review of a range of documentation on existing local energy planning methodologies and trial outputs it is clear that the Energy Systems Catapult (ESC) methodology is by far the most comprehensive and provides a detailed approach to local area energy planning.
- It is also clear that true Local Area Energy Planning is a detailed and labour-intensive process, which we understand that most Local Authorities do not currently have the resource and the skills to complete consistently.
- Based on feedback from prior engagements with Regional/Local Authorities in UKPNs area there is a range of maturities in local decarbonisation planning although the majority have declared climate emergencies and have stated ambitions to decarbonise ahead of the UK national target.
- In order to support RIIO-ED2 business planning, UKPN therefore requires an assessment framework that will enable engagement and consideration of a wide variety of plan maturities, but also ensure a minimum standard is met before local plans can potentially be used to adjust DFES scenario levers as input into investment planning.
- Our initial thinking for the assessment framework is to design a 3-tier approach, that can be run regularly (e.g. at least bi-annually for each LA) to enable ongoing review of evolving plans, consisting of:
 - An initial screening based on a data capture form that would be filled in by the Regional/Local authorities to assess the general level of maturity and likelihood of investment requirements over and above the assumptions from the common scenario. The basis of this more qualitative assessment will be the ESC LAEP done well checklist (see appendix slide 19 for the summary checklist) .
 - If the initial bar is met, Tier 2 is a more detailed 1:1 engagement enabling detailed understanding of the unique plans for a region. The basis of this assessment will be more quantitative in nature and focus on the robustness of and confidence in specific plans. The output will be a clear set of adjustments to the relevant DFES levers that meet the required conditions.
 - Tier 3 will be applied only if adjustments to the DFES levers may result in the need for larger schemes, and therefore a need for more rigorous assessment. This may then entail specific engineering assessments or perhaps more detailed LAEP-style analysis from the Regional/Local authority
- The next phase of this project will be focused on refining the Tier 1 initial screening data collection form and developing options for the approach to Tier 2.

Objectives

The Assessment Framework will enable UKPN to be a leader in supporting regional & local decarbonisation ambitions, demonstrating pro-active engagement with LAEP as part of the RIIO-ED2 process

Objectives:

- Create a framework, endorsed by stakeholders, to assess local area energy plans and enable assurance and categorisation of network investment requirements to justify expenditure in line with RIIO-ED2 business planning guidance.

How will the framework be used:

- Local plans which are assessed by this framework and found to be sufficiently robust will be used to adjust the common assumptions/ DFES scenarios used as input into the capacity planning process

Opportunities & Benefits:

- Developing an Assessment Framework will enable UKPN to:
 - Pro-actively engage more mature Regional/Local Authorities early on and support delivery of local climate ambitions
 - Ensure that a minimum standard is met by plans before any investment decisions are made
 - Ensure investment decisions are transparent and un-biased (i.e. there is confidence that the network investment is the best route to delivering the customer outcome required)
 - Pro-actively engage less mature Regional/Local Authorities with clear guidance on what is required from a DNO perspective, thus facilitating wider development of high-quality plans

Review summary

The Energy Systems Catapult Local Area Energy Planning methodology is by far the most comprehensive and rigorous across a number of key dimensions

	Local Area Energy Planning		Community Led Energy Planning		Local Heat & Energy Efficiency Strategies	
Objectives/ Desired outcomes	An optimised plan for enabling the transition to a net zero carbon energy system taking into account both social and economic factors specific to a region.		A plan that enables a community to develop an understanding of its current and future energy needs and identify opportunities to directly improve them, within the wider context of decarbonisation.		LHEES aim to establish local authority plans for systematically improving the energy efficiency of buildings and decarbonising heat.	
Stakeholder Engagement	Encourages engaging a wide range of local stakeholders and emphasizes the need for consistent and transparent engagement through the process	Maturity H	Developed by local people who have an interest in the community in collaboration with a specific local stakeholders	Maturity M	Local authority led but encourages stakeholder engagement to support data gathering, target setting and to effectively communicate plan outputs	Maturity M
Geographic Scope	Must be clearly defined to reflect both the technical realities of the energy system, and the social realities of stakeholder influence.	H	Targeted at smaller study areas e.g. island communities or rural settlements	H	Targeted at local authority areas with more detailed area prioritization based on data availability and/or targeting specific building sectors	H
Energy Vector Scope	Encourages whole system approach taking into account heating, power & transport	H	Whole system focus including electricity, heat, water and transport	H	Targeted specifically at decarbonising heat and building energy efficiency. Does not include transport considerations	M
Technical analysis	Combines decision and scenario modelling to understand demand requirements as well as the cost and carbon implications of a range of solutions	H	Cost benefits assessment of options to address needs considering financial, carbon and social benefits of each	L	Socio-economic impact assessments utilising Multi-criteria analysis. Criteria include carbon, financial and social impacts with appropriate weightings	M
Non technical assessment	Needs to reflect the full range of conditions that may impact success and their current state	H	Qualitative review of high level options considered. Informed by cases studies from other areas & concept designs	L	Considered as part of the multi-criteria analysis balancing both technical and social criteria	M
Handling of uncertainty	Includes analysis to understand the sensitivity of modelling results to key uncertainty variables. This can be done analytically or empirically	H	Assessments are based on benchmarks or previous reports with little consideration for uncertainty	L	No specific guidance however through trials a number of councils used scenario analysis	L/M
Output	Ongoing governance/ review arrangements and realistic delivery commitments from key stakeholders	M	Finalised list of actions along with clear approach for reviewing and coordinating efforts	M	Agreed authority-wide targets with costing and phasing of delivery programmes	M

Documents reviewed

Overall, three distinct methodologies were reviewed, along with guidance papers, policy responses and trial outputs related to those methodologies

Methodologies

- **Energy Systems Catapult:** The method
- **Local Energy Scotland:** A guide to developing community led local energy plans
- **Scottish Government:** Local Heat and Energy Efficiency Strategies

Policy Briefs & Guidance Documents

- **Energy Systems Catapult :** Guidance for local authorities and energy providers
- **Energy Systems Catapult :** Towards an enduring policy framework to decarbonise buildings
- **Energy Systems Catapult :** Supporting clean growth and low carbon transition
- **Scottish Government:** Local Energy Policy Statement: A consultation
- **Energy Research Partnership:** The challenges and opportunities for local area energy systems in the UK energy sector
- **Citizens Advice Bureau:** Discussion paper on striking the right balance – putting people at the heart of local area energy plans

Trials/ Previous experience

- **Energy Systems Catapult :** Insights from 3 pilot local areas
- **Energy Systems Catapult :** Case study
- **Local Energy Scotland:** COBEN projects
- **UKPN:** DFES engagement outputs
- **Scottish Government:** Local Heat and Energy Efficiency Strategies: Phase 1 & Phase 2 Pilot evaluations

Key findings

From the document review we have identified key themes to inform the design of the UKPN LAEP Assessment Framework and guide decision making

Theme	Description	Implications for UKPN
Local planning is key to delivering on Net Zero ambitions	<ul style="list-style-type: none">They should be used by DNOs, GDNs and other key stakeholders to inform both near term and strategic investment planning	<ul style="list-style-type: none">Supports the need to develop the assessment framework and pro-actively engage local authorities through ED2 planning
Plans can vary greatly across different geographies	<ul style="list-style-type: none">The scope, detail and maturity of the plans will vary depending on the local areas unique circumstances and the approach followedThe resulting plans will also include a wide range of technologies and pathways driven by the huge variety of potential inputs and influencing factors	<ul style="list-style-type: none">The framework needs to be applicable to all plans but quickly identify whether it is worth progressing with the assessment
There are differing levels of technical analysis that can be used	<ul style="list-style-type: none">The energy system is complex and decisions need to be made not only on technical feasibility, cost and decarbonisation potential but also an understanding of wider social and economic factors including for example the strength of local supply chains, air quality impacts and the influence of social demographics	<ul style="list-style-type: none">UKPN must be clear on the minimum standard required for each type of network investment and how that aligns to business plan components
Uncertainties need to be well understood and managed	<ul style="list-style-type: none">Whether it be future technology and fuel costs, likelihood of behavior change or future climate considerations it is important to understand what factors may impact the outcome of the planning activity and the level of sensitivity to these factors	<ul style="list-style-type: none">As well as the robustness of the analysis that identified the network requirement the framework must also assess the likelihood of it actually happening
Stakeholder engagement is critical to overall success	<ul style="list-style-type: none">It is important to take into account the perspectives of a wide range of local stakeholders to ensure a balance of perspectives and data inputs are usedIt is also important for all stakeholders with influence to be aligned and committed to the resulting plan	<ul style="list-style-type: none">UKPN will need to be actively engaged with planning activities throughout the processes
LAEP is not a once and done activity	<ul style="list-style-type: none">It is important to be clear on the process and governance required to monitor progress on an ongoing basis and review and develop the plans in response to changes in the context	<ul style="list-style-type: none">The assessment framework will likely need to be part of an annual or bi-annual process to revisit plans at increasing levels of maturity

Detailed findings

	Energy Systems Catapult: The Method
Objectives/ Desired outcomes	An optimised plan for enabling the transition to a net zero carbon energy system taking into account both social and economic factors specific to a region
Stakeholder Engagement	Encourages engaging a wide range of local stakeholders and emphasizes the need for consistent and transparent engagement through the process. Stakeholders to engage include: local councils, local enterprise partnerships, DNOs/GDNs, transport providers building & heating trades, local businesses, consumer representatives
Geographic Scope	Must be clearly defined to reflect both the technical realities of the energy system, and the social realities of stakeholder influence. The scale will vary depending on the needs of an area, the technical realities of the energy system, renewable generation opportunities and heat and transport decarbonisation options as well as the scale of influence of stakeholders and decision makers and be representative of the geographical allegiances and governance arrangements.
Energy Vector Scope	Encourages whole system approach taking into account heating, power & transport and ensuring the interactions between vectors are reflected. The Energy System scope should include: specific local generation opportunities; electricity, gas & heat networks; EV charging requirements and other transport demands; a special understanding of supplies and demands (such as buildings)
Technical analysis	Combine decision and scenario modelling to enable an understanding of the system requirements as well as the cost and carbon implications of a range of solutions. Specific consideration should be given to developing an understanding of how the system is likely to change over time, the special representation of supply and demand drivers, the types of data inputs required and their sources, the level of validation required of both numerical inputs and the model implementation.
Non technical assessment	Need to reflect a good understanding of the full range of conditions for success relative to the current state of play. Considerations should include: required skills, possible supply chain constraints, consumer perceptions of technology options and national policy and funding decisions. Where action is needed on any of these factors the plan should take into account both local and government/regulator actions and be realistic about the extent to which these can be influenced by local stakeholders.
Handling of uncertainty	Stakeholders must have visibility of the sensitivity of modelling results to key uncertainty variables e.g. fuel & technology prices, carbon prices, changes in climate/ weather effects. This may be through an empirical approach or where possible assessed analytically.
Output & Ongoing governance	Ongoing governance/ review arrangements and realistic delivery commitments from key stakeholders. The 4 key components are: an articulation of what is within the stakeholders control vs requiring wider influence, commitment from local stakeholders on key actions, a view of further analysis or programme design required to finalise delivery plans and clear governance arrangements to regularly review progress and monitor for any changes that may impact the plan.

Detailed findings

Local Energy Scotland: Community Led Energy Planning

Objectives/ Desired outcomes	A local energy plan that enables a community to develop an understanding of its current and future energy needs and identify opportunities to directly improve them, within the wider context of decarbonisation. A Community led LEP supports community engagement with its energy needs, provides focus for immediate opportunities and supports longer term planning for the future.
Stakeholder Engagement	Developed by local people who have an interest in the community in collaboration with other stakeholders. Encourages engagement with a wide range of local stakeholders to work together to create a LEP. These can include community development trusts, housing or residents associations, local businesses and residents.
Geographic Scope	Targeted at smaller study areas. Beneficial to align with pre-defined geographical boundary areas as there is likely to be existing datasets that can be collected aligned to these areas. In the case of islands or well defined settlement a simple geographic boundary may be sufficient.
Energy Vector Scope	Whole system focus including electricity, heat, water and transport. The analysis should take into accounts residential and non residential buildings; road, rail and ferry links; transportation types incl. private vehicles, public transport & commercial vehicle ownership; local land use; estimates of local solar, wind, hydro and biomass resources
Technical analysis	Baseline data gathering to understand current demand. Use of national and local context as well as previous energy & transport work to estimate future changes in electricity, heating and transport energy requirement for the study area. Generally Based on public benchmarks for new buildings; population estimates and visitor/tourist data; previous energy or transport studies; and initial figures from planning application documents. High level cost benefits assessment of options to address need considering financial, carbon and social benefits of each. Recommends including discounted cash flow details as well as an assessment of net environmental benefits and wider socio-economic impacts (social NPV)
Non technical assessment	Qualitative review of high level options considered. Informed by cases studies from other areas & concept designs. An assessment of how economic changes in the local area are likely to alter the scale or type of energy demand.
Handling of uncertainty	Assessments are based on benchmarks or previous reports with little consideration for validating accuracy, understanding tolerances or handling uncertainty
Output & Ongoing governance	A finalized list of recommended actions with all supporting information and engagement outputs. Ensure relevant stakeholders are tasked with specific actions including consistent approach for monitoring and coordinating efforts. Agree approach for reviewing and updating the LEP with all stakeholders.

Detailed findings

Scottish Government: Local Heat & Energy Efficiency Strategies

Objectives/ Desired outcomes	LHEES aim to establish local authority plans for systematically improving the energy efficiency of buildings and decarbonising heat. LHEES are the link between long term targets and national policies and the delivery of energy efficiency and heat decarbonisation on the ground. They allow local authorities to prioritise and target work.
Stakeholder Engagement	Local authority led but encourages stakeholder engagement to support comprehensive data gathering and consultations with a range of stakeholders to support target setting and communicate the planning outputs to a wider audience.
Geographic Scope	Targeted at local authority areas with more detailed area prioritization based on data availability e.g. census output areas, council tax bands, existing fuel poverty maps. This data enables the identification of priority areas for energy efficiency measures and potential district heating zones to be established.
Energy Vector Scope	Targeted specifically at decarbonizing heat and building energy efficiency. Does not include transport considerations or include other supplies or drivers of demand for energy.
Technical analysis	Recommends socio-economic analysis over standard technical and financial analysis to ensure a balanced assessment of the wider impacts of each proposal. Multi-Criteria Analysis (MCA) is recommended with criteria including carbon emissions, project financial, local economic, social and resilience impacts with appropriate weightings
Non technical assessment	Considered as part of the multi-criteria analysis. Weightings of the different criteria can be adjusted to reflect the relative importance of different technical and social criteria. The aim of this exercise is to establish the suitability of energy efficiency and heat decarbonisation measures for achieving carbon targets alongside broader economic and social goals.
Handling of uncertainty	No specific guidance however through trials a number of councils used scenario analysis
Output & Ongoing governance	Agreed authority-wide targets with costing and phasing of delivery programmes

Detailed findings

Energy Systems Catapult: Trial learnings – Bury, Bridgend and Newcastle

Approach	LAEP approaches, with strong local leadership, can create well-targeted and evidenced Net Zero investment and infrastructure plans for localities, towns and cities. This can support better decision-making, and help regions take a lead in delivering green recovery and growth nationwide. It is noted that the cost of establishing and undertaking a more robust, consistent and whole system local area energy planning process across the country is likely to be a relatively small share of the overall cost of decarbonisation.
Stakeholder Engagement	Sharing cross sector data sets and ensuring public awareness and education on the potential of local area energy solutions are key enablers to success. Good stakeholder engagement is a key route to open access high quality data sets and ensuring buy in from all local stakeholders for plans and the social and economic impacts that will result is key to facilitating delivery
Geographic Scope	Throughout the trials it was clear that every local area is unique with a variety of buildings, existing networks, local residents and businesses. It was also found that local areas have different governance structures regarding decision-making and the variety of stakeholders involved also have different levels of influence across geographies.
Energy Vector Scope	Although the initial pilot areas had a focus on heat decarbonisation it was recognized that assessing multiple vectors is required to understand the trade-offs and integrations required between gas, heat and power and their associated networks. It is also noted that transport considerations can have a significant impact on both decarbonisation trajectories and the air quality & economic growth of cities & local communities. Therefore integration of transport is absolutely critical to enable true whole system analysis and ensure the full value of local area energy planning is realized.
Technical analysis	The pilot studies have clearly indicated the value of taking a Whole Systems approach to energy planning so the trade-offs between options can be understood.
Non technical assessment	Across all pilot local areas there was some lack of confidence in central government's ability to lead the change to low carbon heating. There was also concern around policy makers and regulators' ability to make the changes required, to provide sufficient long-term stability for local stakeholders to plan, or for markets to be enabled in delivering the scale of change needed.
Handling of uncertainty	A lack of data was identified as a key driver of uncertainty and a barrier to making informed decisions and initiating action. It was also found that there was often a desire to prioritise low-risk projects to enable funding and progress to be secured in a short time-frame however there is a risk that these projects will not fit well into longer term strategies. It was also found that solutions for suburban areas are more variable and subject to greater uncertainty. This was due to the influence of individual customer choices in shaping the outcome.
Further roll out of the approach	Local governments are an obvious choice to drive LAEP however a lack of skills and resources within local authorities is a key barrier to the development and delivery of Local Area Energy Plans. It is well recognized that rolling out a structured and consistent approach to Local Area Energy Planning can radically improve evidence and decision-making at local level and provide important information for regional and national decision-making. A suggested approach for further roll out is 2021/2022 – Further test and refinement. 2022-2025 – Roll out nationally, Beyond 2025 rolling programme so updates can be foreseen

Detailed findings

	Scottish Government: Local Heat & Energy Efficiency Strategies – Pilot learnings incl Glasgow, Stirling, Inverness & Aberdeen
Approach	There were varied levels of awareness of the 'six stages' across the different partners involved in the pilots. Stage 1 (review existing strategies & data) & 2 (authority wide assessment of existing building stock) were completed by all areas. Stage 4 (socio-economic analysis) & 5 (prioritization of opportunities) were completed to some degree however there was little evidence of stages 3 (targets) & 6 (costing & phasing of delivery programmes) being completed
Stakeholder Engagement	The level of stakeholder engagement varied significantly across trials. It was found that stakeholder engagement is resource intensive/ time consuming and the level of knowledge and understanding in some stakeholder groups was found to be insufficient to properly engage. Engagement with SMEs and other public sector organisations (e.g. NHS, Fire and Rescue) was found to be particularly challenging due to limited availability.
Geographic Scope	The majority of pilots selected one or two building sectors to focus on. These included: public sector buildings; local authority stock; small and medium enterprises; self-funding; and privately rented. This enabled the authorities to either develop detailed plans for well known sectors (e.g. public sector buildings) or to gather information on sectors they were less familiar with (e.g. SMEs or private renting sectors)
Energy Vector Scope	The pilots found that this approach overlapped with other work already done on other local authority planning activities and reflected that LHEES needed to be integrated into authority planning activities. Although in some cases this overlap enabled LHEES to build on top of previous strategies in order to have maximum impact
Technical analysis	The local authorities involved in the trials found that they had a lack of understanding and skills within their organisations to complete the complex technical analysis. Many partnered with consultants to complete the data cleansing, manipulations and overlays required in this method but found this to be beneficial and a good way of approaching the challenge
Non technical assessment	Through trials the weighting of the various social and economic criteria was found to not properly represent the needs of the majority of local areas. It is recognized that the categories and weightings will need to be considered and adjusted locally for further roll out
Handling of uncertainty	Although no specific guidance is given on handling of uncertainty it was noted in the trials that the accuracy and level of detail of data used was often insufficient to enable detailed analysis.
Further roll out of the approach	Additional guidance is required for ensuring some consistency and parity across different local authorities

UKPN Framework Ambition

- ▲ We believe we need a **collaborative approach** to reviewing regional/local plans and using them to inform network investment planning to ensure UKPN can support decarbonisation plans whilst investing with confidence.
- ▲ By **co-designing an approach** UKPN can support regional/local Authorities by providing **guidance on the sorts of activities and outputs we think are necessary to justify investment** as well as take into account Regional/Local Authority views on **what is reasonable and achievable**
- ▲ Having an agreed approach will also enable network **investment decisions to be made quickly and consistently**, ensuring this is not a blocker to delivering plans
- ▲ The framework needs to be:
 1. **Proportionate** – It should be relatively easy to filter out low maturity plans but allow for a detailed & robust assessment where necessary
 2. **Transparent** – Co-designed and agreed with Local Authorities, be accessible, easy to understand and provide a clear standard for consideration
 3. **Fair/Unbiased** – Ensure Local Authorities can evidence consideration for alternative solutions e.g. hydrogen vs. electricity for heat
 4. **Universal** - Applicable to a wide range of local plans or Local Authority circumstances regardless of the methodology used
 5. **Repeatable** – Able to be used throughout the ED2 period to support the evolution of local plans and enable investment decisions to be made throughout the price control period

	DNO Light Touch	Middle Ground	DNO Driven
Mode of engagement	<i>Purely reactive responding to connection request May drive unnecessary delays</i>	<i>Collaborative engagement with pre-agreed criteria & format</i>	<i>Network pro-actively drives local planning Risks not being aligned to the needs of local stakeholders & customers</i>
Level of detail	<i>Conduct only high level assessments of plans May result in regret spend</i>	<i>Ensure minimum confidence is met across key criteria & account for differing confidence levels</i>	<i>Require full cross vector energy system modelling & least worst regrets assessment Would require additional resource & time</i>

What we are aiming for

Draft framework

Tier 1 – Initial draft of potential dimensions to consider

A Prioritisation & qualifying questions

Top-down prioritisation:

- Does the LA have known decarbonisation ambitions over and above the national plan?
- Has UKPN previously engaged with the Local Authority on specific schemes or local planning?
- What is the statutory/ legal status of the targets and implications of them not being achieved?

Qualifying questions:

- Has the authority engaged in any specific local energy planning activities?
- Are additional local objectives clear – balance of low carbon with fuel poverty, air quality, economy growth etc.

B Inputs

Considerations include:

- **Data sources:**
 - Top down net zero plan, transport plan w/ volumetrics
 - Land use plan
 - Are these plans integrated into a strategic long term vision?
- **Scope:**
 - Geographical boundaries
 - Energy vectors considered
 - Time horizon considered

C Process

Considerations include:

- **Stakeholders engagement:**
 - types of org
 - as well as people in that org
 - frequency & type of engagement
- **Modelling approach:**
 - multiple scenarios considered
 - sensitivity analysis completed (e.g. what variables)
 - Type of CBA

D Outputs

Considerations include:

- **Relevance:**
 - When was plan completed (within 12-18 months ideally),
 - Are the priorities well defined

Draft framework

Tier 2 - Initial draft of potential dimensions to consider

A Quantifying the plans

- Type of requirement identified (e.g. if only 1 new connection, multiple new connections over a period of 5 years, investment in flexibility solution)

B Confidence in the plans

Confidence in the solution option:

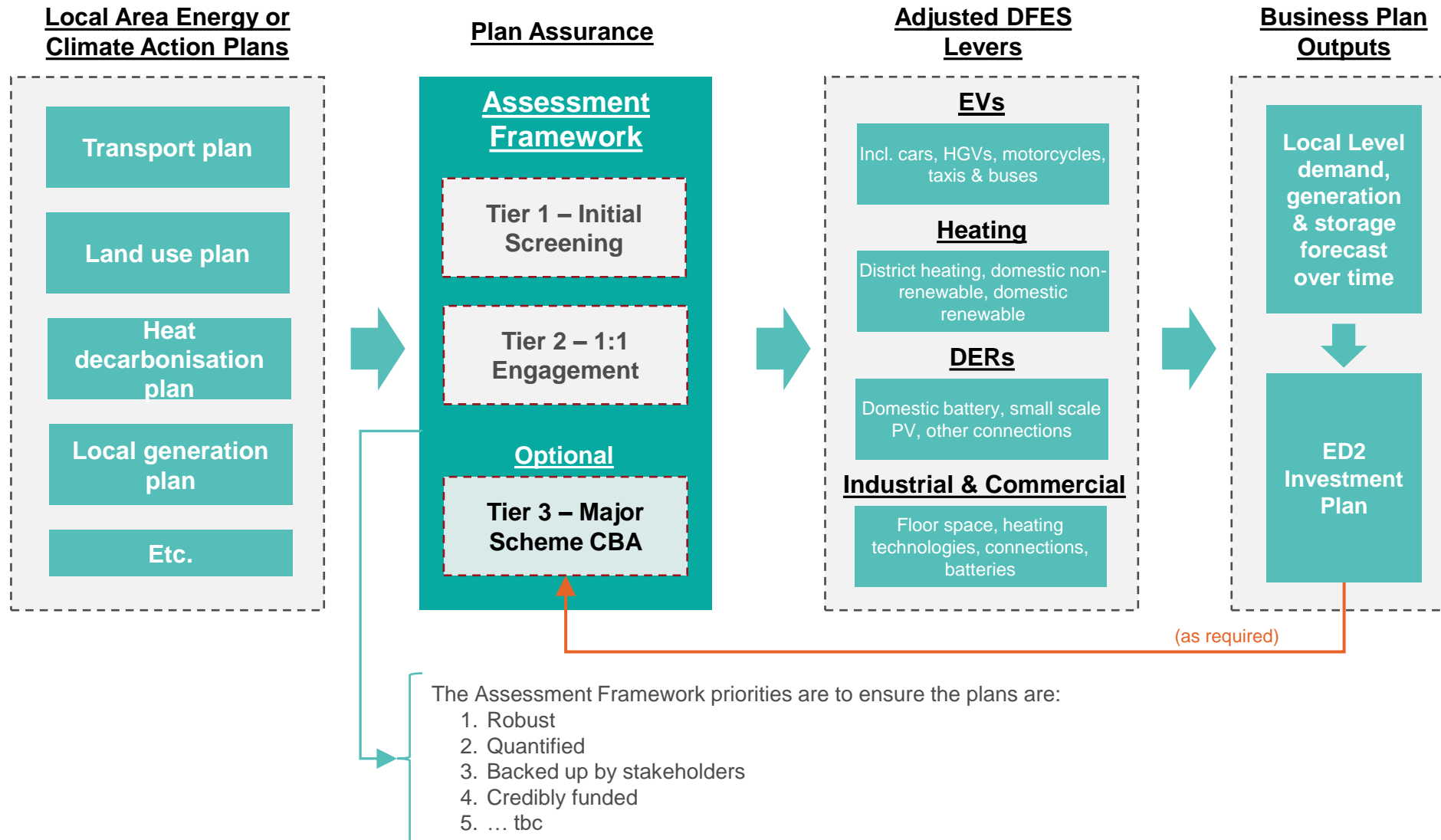
- How robust are the volume forecasts in the local plan?
- Which variable are the volumes most sensitive to?
- Is there at least one alternative scenario where another solution/ technology has been considered?
- How firm/progressed are development plans (e.g. planning applications in progress, scheme design completed, foundations laid)?

Confidence in deliverability:

- Is there a clear delivery plan for specific schemes/ projects?
- Are there delivery contracts in place or are stakeholders willing to sign up to contracts?
- How credible are funding arrangements?

Framework strawman

The framework that will ensure a consistent confidence level is met before regional/local plans are used to adjust DFES scenario levers as input into investment planning



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- Initial framework research and design
- Local Authority engagement on framework design
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- Letters of support received to date
- Proposed services to support LAEP development

Local Authority Engagement – meeting 1

Our first round of workshops were focussed on sharing our proposed planning framework for feedback, and understanding the level of interest from Local Authorities

Purpose of engagement

- ▲ Socialise our proposed planning framework and gauge interest and engagement with the approach
- ▲ Take feedback on the proposed approach

Local Authorities and Organisations Engaged

- ▲ Essex County Council
- ▲ Southend-on-Sea Borough Council
- ▲ Mid Suffolk District Council
- ▲ Suffolk County Council
- ▲ Surrey County Council
- ▲ Brighton & Hove City Council
- ▲ East Sussex County Council
- ▲ The London Councils
- ▲ The Greater London authority
- ▲ The South East Energy Hub

Three workshops were held, with multiple bodies represented at each.

Agenda for the sessions

- | | |
|---|---------|
| ▲ Kick off & Introductions | 5 mins |
| ▲ Context <ul style="list-style-type: none">• Network Business Planning• Net Zero & Local Decarbonisation• Framework Ambition• Alignment on Objectives | 15 mins |
| ▲ Framework Proposal <ul style="list-style-type: none">• Framework Overview• How it could work• Assessment Detail | 25 mins |
| ▲ Discussion & Feedback <ul style="list-style-type: none">• Key questions/ Discussion points• General Feedback | 40 mins |
| ▲ Next Steps | 5 mins |

Local Authority Engagement – meeting 2



In our second round meeting we presented back our findings from the first round engagement, and how we had taken feedback on board in our proposals

Purpose of engagement

- ▲ Socialise our proposed planning framework and gauge interest and engagement with the approach
- ▲ Take feedback on the proposed approach

Local Authorities and Organisations Engaged

- ▲ Essex County Council
- ▲ Southend-on-Sea Borough Council
- ▲ Surrey County Council
- ▲ East Sussex County Council
- ▲ The London Councils
- ▲ The Greater London Authority
- ▲ Hounslow Council
- ▲ The South East Energy Hub

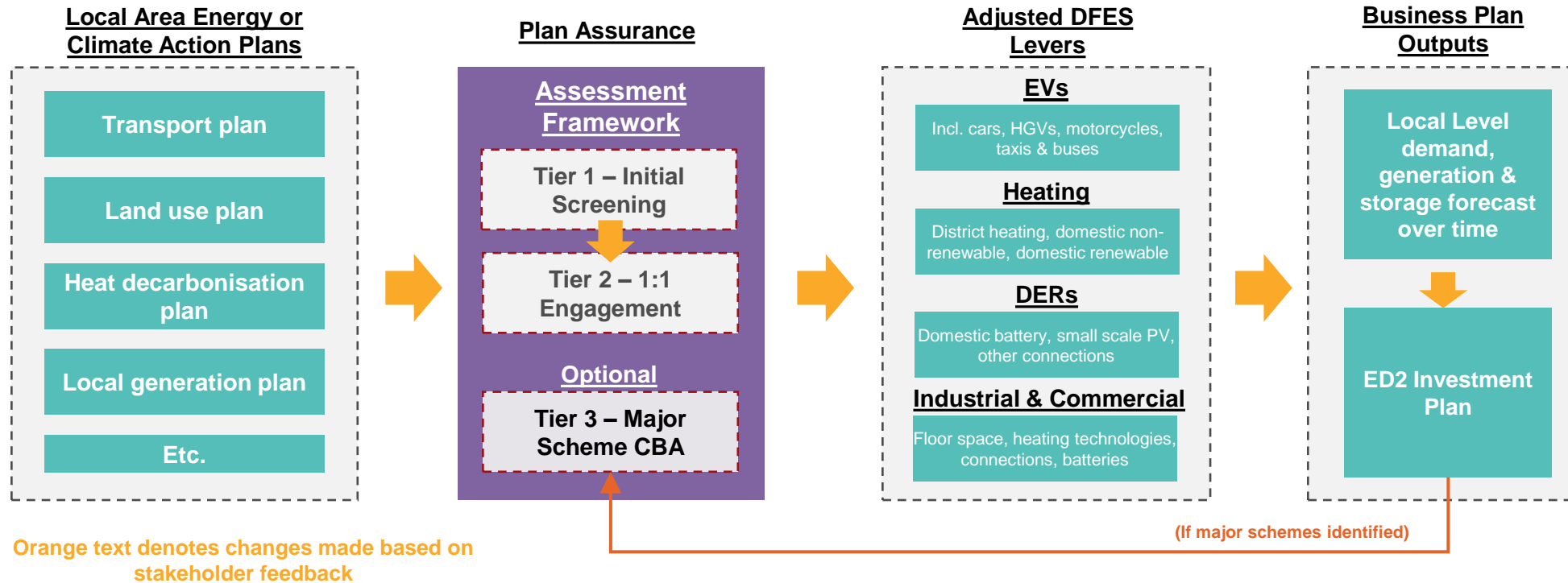
Agenda for the session

- | | |
|--|----------------|
| ▲ Summary of previous engagement | 10 mins |
| ▲ What we heard <ul style="list-style-type: none">• Overall Feedback• UKPN Proposed response | 25 mins |
| ▲ Framework Proposal - Iterated <ul style="list-style-type: none">• Overall Approach• Tier 1 Adjustments• Tier 2 Further Detail | 50 mins |
| ▲ Next Steps <ul style="list-style-type: none">• Trial Approach• Further engagement | 25 mins |

The subsequent slides set the feedback that was received and incorporated in our proposals.

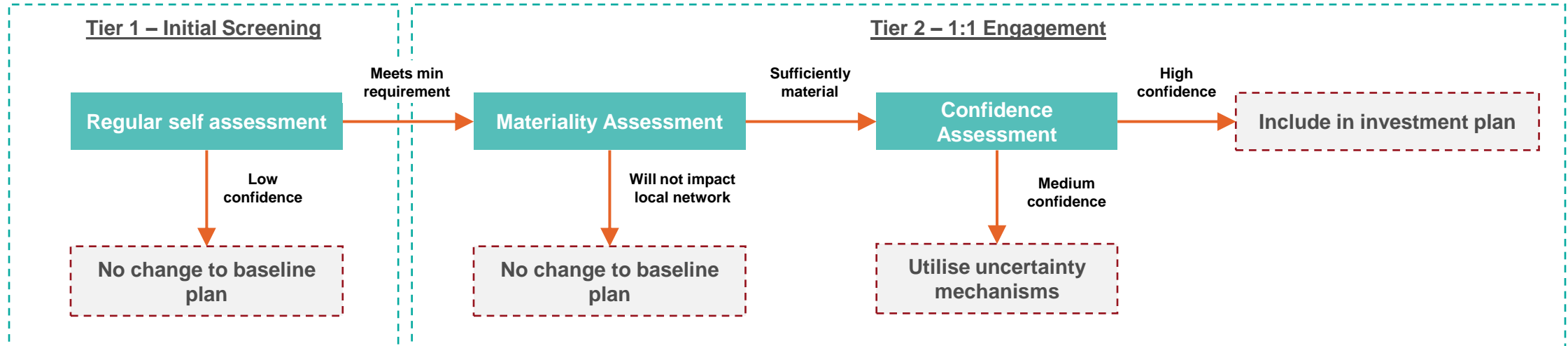
Framework Proposal – Iterated based on stakeholder feedback

- The overall proposed approach hasn't been changed as there was general agreement that the tiered assessment approach was appropriate. It ensures effort is proportionate to plan maturity but consideration can be given to all local plans:
 - Tier 1 Initial Screening** – based on a data capture form that would be filled in by the local authorities considering the work done to date. The form will use the agreed criteria and minimum requirements descriptions to identify where plans are sufficiently mature to warrant further engagement. **UKPN will work with the local authorities or county councils to understand evidence requirements**
 - Tier 2 consists of a more detailed 1:1 engagement** enabling understanding of the area's unique plans. The basis of this assessment will be more quantitative in nature and focus on the robustness of and confidence in specific plans. The aim is to output an agreed volume and timing adjustment to UKPNs Distributed Future Energy Scenarios that can be used for investment planning.
 - A Tier 3 assessment aligned to the existing CBA approach could be used for strategic investments** will be applied if there is a need for larger schemes. As the potential for regret spend is greater with large schemes, further analysis may be required to ensure confidence before committing spend.



Revised Tier 1 & 2 approach

- ▲ The engagement process will be further tested through trials however based on feedback there should be a yearly touch point to be used only if something has changed since the last engagement; as well as retaining the flexibility for authorities to engage outside of this specific slot to avoid delaying specific projects



Self – Assessment:

- Yearly touchpoint to be used as required (i.e. only if things have changed)
- Questionnaire shared with Local Authorities annually for self assessment, to be returned with accompanying evidence
- Questions will cover: level of ambition, plan scope, quality of analysis, stakeholder support, implementation planning & funding
- If a local authority can **respond Yes to all the questions and provide supporting evidence**, the 1:1 engagement activities will be kicked off

Materiality Assessment:

- Offline review conducted by UKPN utilising the evidence provided by the LA through Tier 1
- Consists of a **rough order of magnitude assessment** of the size of the plan against the current state of the network in that area to **validate the impact will be sufficient to impact investment planning**

Confidence Assessment:

- 1:1 Engagement will consist of a review session attended by local authority representatives as well as the UKPN team to review the evidence and explore in further detail. The UKPN team will then complete a confidence assessment to share with the local authority team.
- **Confidence in plan will be rated across 4 key levers:** Level of funding, credibility of delivery approach, level of stakeholder support & robustness of the supporting analysis.
- Exact scoring mechanism needs to be agreed, however, in principle, the approach would allow for a **high confidence elements to be included in the ED2 baseline business plan, and identify medium confidence elements that will be considered via uncertainty mechanisms**

Other key feedback from the engagement

- ▲ **There is a strong appetite to work in partnership with network businesses** to create innovative solutions for customers and communities to drive net zero and the green recovery
- ▲ **Overall there is support for the objectives of this project and the proposed approach.** However, capacity constraints and a lack of specific capabilities/ skills is a key challenge for regional/local authorities that may impact ability to engage.
- ▲ **Aiming for the middle ground at this point is the right approach.** The ESC LAEP method whilst robust and comprehensive is extremely challenging to deliver for Local Authorities in the current context.
- ▲ **Good quality & consistent sharing of data will be key to success.** This is true not only of local planning activities but also the application of this framework.
- ▲ **Wider engagement beyond Local Authorities or County Councils is needed.** There are different roles & responsibilities in multi-layer local government as well as additional bodies such as Local Enterprise Partnerships.

UKPN response to addressing the skills/capacity challenge

- ▲ UKPN is proposing a RIIO-ED2 Business Plan commitment to develop a centralised local planning team to support LAs in undertaking this process. Our current thinking on the support this team would offer includes:
 - ▲ Where appropriate, support the development of the evidence base for the climate action plan/local area energy plan;
 - ▲ Facilitate knowledge sharing & identification of best practice across planning areas; and
 - ▲ Provide support on energy network modelling.

- ▲ The benefits of the proposed team and approach include:
 - ▲ Identifying opportunities for connecting more low carbon technologies more quickly and cheaply
 - ▲ Identifying opportunities for strategic investment that would unlock local potential
 - ▲ Improved dialogue and increased knowledge sharing - including better access to data, insight into best practice and support in developing plans
 - ▲ A simplified process through which local requirements can be fed into UKPN's investment planning process

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Tier 2 – Proposed Approach

- Following the engagement sessions we have developed further detail on how Tier 2 could work.

Confidence Assessment Steps

1

Funding Commitment & Visibility



2

Credible delivery approach, Stakeholder support & Robust analysis



3

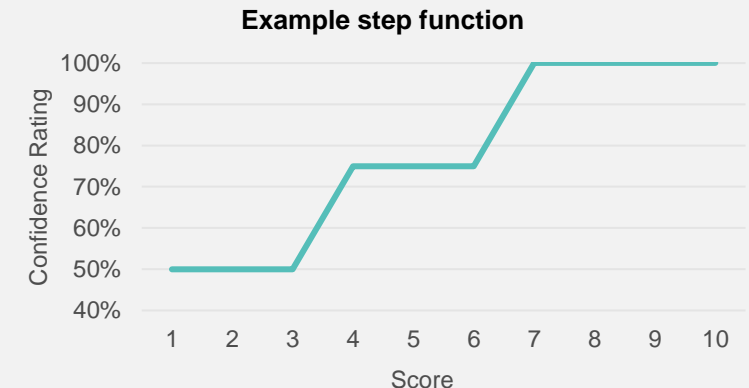
Overall Confidence



Assessment Principles

- As the primary driver of confidence, the funding commitment rating will be used to cap out the proportion of the plan that can be included in the baseline allowance
- The rating will need to consider the different types of funding & different parties responsible for spend e.g. is it central LA, government matching schemes, customer financed? This will likely vary by project
- There will be a number of pre-defined confidence bands to guide allocation of confidence levels
- Overall funding confidence will be evaluated by weighting the different types of funding by confidence level

- Each confidence lever will be assigned an individual confidence rating based on a series of more detailed questions
- Proposal to use a step function of confidence levels where a range of scores correspond to a confidence band
- There will be no 0% confidence on the basis that Tier 1 should have filtered out very low confidence plans



- The three confidence ratings calculated in step 2 will be averaged into a single confidence multiplier reflecting that all three levers are equally important
- Overall confidence is calculated as the funding committed rating scaled down based on the average confidence across the other levers

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Engagement post the Initial Business Plan

Since the submission of the Initial Business Plan we have:

- ▲ Trialled approach with Essex County Council
- ▲ Undertaken 17 regional engagement sessions to present and get feedback on the assessment framework, our proposed central team and online energy planning tool
- ▲ Engaged with both the Energy System Catapult and Citizens Advice to get their perspective and challenge

Tier 1 trial - What we learnt

- ▲ The areas that we have found which have the biggest impact on whether a sector progresses from Tier 1 to Tier 2 is:
 - ▲ Level of spatial mapping of plans (how many, where and by when)
 - ▲ Ability to influence deployment
 - ▲ Funding position
- ▲ As part of completing the Tier 1 questionnaire Essex helpfully added 'Level of Agency' as a factor i.e. the Council's ability to influence particular sectors
- ▲ This has highlighted that at present areas under their direct control e.g. vehicle fleet, own estate etc. are the areas that they can progress fastest with
 - However, funding, and for particular elements of the vehicle fleet, technology availability are still limiting factors
 - Based on our engagement this picture is replicated across many local authorities
- ▲ We propose to add 'Level of agency' as an element to our Tier 1 analysis criteria

Feedback from further regional engagement

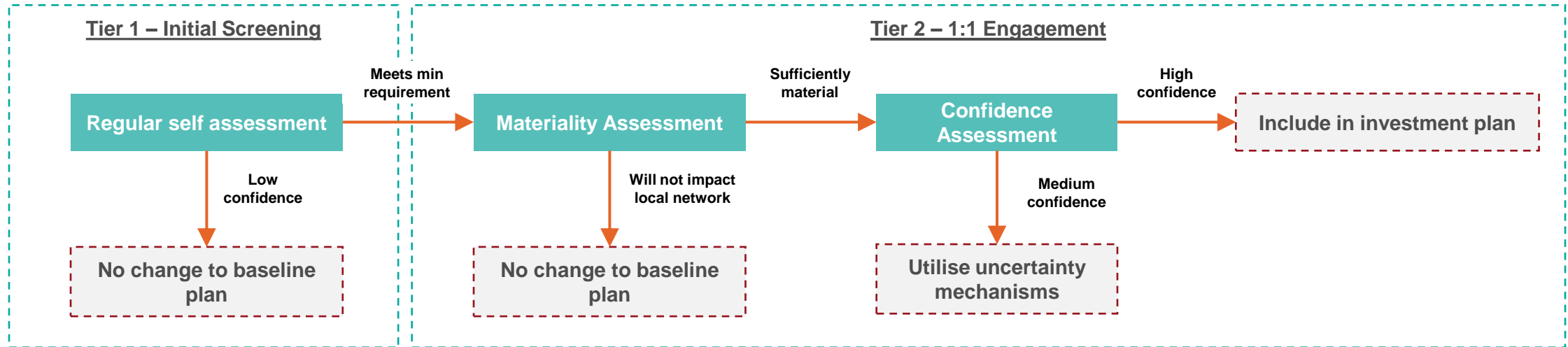
- ▲ Majority of regional planning authorities are driven by short term funding availability i.e. next two years
- ▲ Current public sector funding model places significant time pressures on them
 - From funding launch bid needs to be in within three months and if successful project delivered with 12-18 months
 - Timely support needed from UKPN to support the bid process
- ▲ The majority have not done their own long term spatial modelling of LCT take up to align with their plans and energy modelling is an area where they lack expertise
- ▲ What was supported:
 - Establishment of a central team – Further information on the responsibilities of the team can be found later in this presentation and in the DSO appendix
 - Provision of online energy planning tool to help them understand the impacts of their plans on our network
 - An annual engagement round and the majority thought, in principle, that the framework was workable
- ▲ What concerned them:
 - Resourcing – A number of LAs concerned that undertaking Tier 1 could be a challenge for them given current resourcing levels
 - The data in the tool needs to be kept up to date to be useful.

UK Power Networks application of Tier 1 framework to ECC climate action plan

- We reviewed each segment against the yes/no criteria on the Tier 1 framework based on the evidence provided to produce our own view of the maturity of ECC's climate action plan
- Whilst no segment returned a clear “yes” on all 6 criteria, we found that some criteria are too stringent, because the “minimum standard” may be overly onerous in some cases e.g. developed delivery plan
- We therefore produced a qualitative scoring of 1-5 against each criteria as an alternative assessment methodology
- Based on our analysis and the additional regional feedback our proposal is to alter the Tier 1 Assessment process so that the first stage is UK Power Networks conducting a desktop assessment of each regional planning authorities climate action plan to establish a baseline

Updated Tier 1 & 2 approach

- ▲ The Tier 1 process has been updated to reflect the learning from the additional regional engagement



Annual assessment process:

- Yearly touchpoint to be used as required
- UKPN will undertake annual desktop analysis of publicly available information on each regional planning authorities climate action plans
- UKPN Tier 1 initial analysis shared with the regional authority for feedback and identification of additional information sources not in the public domain
- Further session with regional planning authority to present updated analysis and Tier 1 outcome identifying areas to take forward into Tier 2 and highlighting the what additional information is needed for remaining areas to progress to Tier 2

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Orange text denotes changes made based on stakeholder feedback

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Letter of support

At the time of submitting the December draft business plan, we have received 13 letters of support from regional/local authorities¹

Dear Suleman Alli (Director of Strategy, Customer Service and Regulation),

Support for the Climate Plan Assessment Framework

Helping meet the UK's net zero climate emissions target is a key priority for local government and our residents. It is widely recognised, including by the Climate Change Committee, that local authorities have a key role in delivering this ambition. We the undersigned believe UK Power Networks has a pivotal role in supporting local government in the delivery of their climate action plans. It is vital that once these plans are appropriately developed a lack of network capacity is not a blocker to them.

We therefore support the inclusion of the proposed Climate Plan Assessment framework within UK Power Network's Business Plan submission. We have worked with UK Power Networks on the development of the framework. While there is still work for UK Power Networks to do on the detailed mechanics of the framework, our view is that it represents a positive step in ensuring that the necessary investment can be transparently identified and undertaken.

We also support UK Power Networks' proposal to establish a central team within their business to provide additional support to local authorities not only with undertaking the climate plan assessment process, but also to provide a range of technical support to help them achieve their climate action plans.

Yours sincerely,

Carolyn McKenzie

Director – Environment



Mark Kemp
Director of Energy & Infrastructure



Matt Hullis

Head of Environment Strategy



Sam Kennedy

Director of Environment & Climate Action



Paul Dodson
Director of Strategy, Performance & Governance



Steve Bambrick

Service Director
Planning & Environment



Stephanie Holt-Castle
Director for Growth and Communities



Steve Read
Director of Environment and Public Protection



Adrian Cannard
Strategic Planning Manager



CAMBRIDGESHIRE
& PETERBOROUGH
COMBINED AUTHORITY

Rupert Clubb

Director – Communities,
Economy and Transport



Vince Muspratt
Director of Growth and Economic Development



Norfolk County Council

Andrew Limb
Head of Corporate Strategy



Nick Hibberd
Executive Director Economy,
Environment & Culture



¹ London Councils and the Mayor of London also supported our climate plan assessment framework in their letters of support for the RIIO-ED2 plan

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Local planning stakeholders* 'customer persona'

* Including Local Authorities, County Councils and the GLA

Our engagement has led us to an understanding of Local Authority planners' needs, and the services that we could offer

A breakdown of the estimated UKPN resource requirement to deliver these services is outlined on the following slide



Local planning authority – Climate Action Plan owner: Steve

Steve is a local area energy planner. His Local Authority have declared a Climate Emergency, and are developing their Climate Action Plan. He needs support in developing a Local Area Energy Plan, and accessing the funding, stakeholder support and investment required to deliver progress toward Net Zero in his area

Customer wants and needs

DSO Services

Planning

- I need support developing Local Area Energy Plans to facilitate delivery of Net Zero in my area
- I need to engage and coordinate with a wide range of stakeholders across the whole energy system
- I need support translating my Climate Action Plan into specific volumes of energy assets – how many, where and by when
- I want a better understanding of what the DNO needs from me to trigger investment in energy infrastructure where necessary
- I need advice and support on how to bid into funding mechanisms – especially in understanding the cost of network infrastructure
- I need to facilitate the decarbonisation of my own estate and operation

- Local Area Energy Planning support team
- Annual engagement with all regional planning authorities, and support in coordinating wider whole system engagement
- Climate Action Plan reference framework, providing guidance on the planning outputs required to enable investment in network assets
- Provision of digital energy system planning portal, and support / training to enable energy system modelling and forecasting
- Provision of research and networks/system data to support local planning
- Commercial expertise to support funding applications and cost/benefit assessment
- Ad-hoc consultancy support to answer questions regarding energy systems and assets

"I want to create plans for local development and growth that help achieve deep decarbonization at least cost"



Steve

