

Appendix 2 – Ten Measures and Missions for Energy Transition

Mission	Pathway Requirement	Finance Needed	Key Barriers	Concept to Address Barrier
Domestic retrofit	All homes retrofitted-currently 277,600 households in Cambridgeshire	£1.38bn	<ul style="list-style-type: none"> Funding upfront whole-house surveys Limited financial incentives for homeowners e.g gas price cheaper than electricity Skills / supply chain and cost impacts Capital cost of change & Limited consumer knowledge of offers 	<ul style="list-style-type: none"> Reform council tax to link it to property energy efficiency Dual interest rate system for the Bank of England Upfront analysis and development fund Integrate retrofit credits into an immediate offer Stimulate demand for retrofit skills Scale-up of Swaffham Prior Heat Network approach to address at village level in rural areas, or neighbourhoods in urban areas Financial guidance service (integrated with One-Stop-Shop)
Non-Domestic buildings and processes	Electrification of buildings and processes to the maximum extent-currently 143,980 non-domestic buildings	£2.88bn	<ul style="list-style-type: none"> Funding upfront decarbonisation surveys Limited green borrowing & Limited financial incentives for business owners Complexity associated with different sectors Perception of risk / cost Disruption to business 	<ul style="list-style-type: none"> Upfront analysis supported by a development fund, linked to a revolving loan fund for communities & businesses Reform business rates to provide discounts to energy efficient businesses / properties Dual interest rate system for the Bank of England Greater use of collective LA procurement to create incentives Local Decarbonisation Fund supported by LA procurements and potential for subnational Carbon Credits market Sector-based decarbonisation plans / expertise with funding Financial guarantee product
Transport-demand reduction / mode shift	Reduced car mileage through demand management and shift across urban and rural areas-reduce car mileage by 15% by 2030 and 15% modal shift.	>£0.25bn	<ul style="list-style-type: none"> Road investment is prioritised above mass transit solutions Rural Areas are Under-represented 	<ul style="list-style-type: none"> Re-write business case rules and include carbon budgets Development Fund for innovative transport models e.g transport as a services plus mass transit

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Heat Sources	Heat pumps or district heat for all homes and 143,980 non-domestic buildings	£0.67bn	<ul style="list-style-type: none"> Upfront cost of analysis / engineering design Understanding how to scale-up 	<ul style="list-style-type: none"> Upfront analysis and development fund Investment grade analysis for whole of Cambridgeshire for heat pumps and networks Community Municipal Bonds and other financing models
EV Charging (excludes vehicle costs or buses)	Scale up of EV charging for personal vehicles and freight- currently 264 growing to 12,823 charge points by 2040. Pathway for clean hydrogen to power large fleet vehicles	£0.63bn	<ul style="list-style-type: none"> Governance and responsibility Underweighting in rural areas Insufficient demand for hydrogen powered large fleet 	<ul style="list-style-type: none"> Level of service by place-type (EV) Procurement to incentivise rural delivery Cambridgeshire business case to identify opportunity for hydrogen powered large fleet
Local Generation	Target based on share of national energy use- Onshore wind potential 6.6 GW, Solar 1.6 GW	£1.6bn	<ul style="list-style-type: none"> Local ownership / buy-in for solar, wind, Anaerobic Digestion Planning Grid connections For Solar PV – perceived loss of agricultural land 	<ul style="list-style-type: none"> Community Energy Fund (linked to building society) Green Enterprise Zones (as a result of LAEP) Development of Local Neighbourhood Energy Plans Stacking of revenues and environmental credits into PV energy schemes e.g soil improvements, biodiversity, pesticides, carbon
Grid Investment	Supporting all the above actions	TBD	<ul style="list-style-type: none"> Grid constraints Longtime frames for connecting Little visibility of connection costs and queues 	<ul style="list-style-type: none"> LAEP identifies clear pipeline of energy projects including upfront analysis on timescales to inform DSO business plans Financing of skill schemes (apprenticeships, internships)

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General Investor/Pension Fund	Supporting all the above actions Funding deployment at scale Funding for hard to abate areas	TBD	<ul style="list-style-type: none"> Lack of consumer awareness, trust and confidence Competition vs traditional banks Lack of scale/proof Perception of risk Regulatory/FCA limits on local investments 	<ul style="list-style-type: none"> Create a fin-tech offer to make climate investment more attractive Encourage all employers to have a green pension option Create a "B-Corp" for Pension funds Green Citizen owned building society Return guarantee product Originate platform for "hard to coordinate" products Local Investment fund and delivery vehicle
Flexibility services and community	Increase local generation and modify generation or consumption patterns in reaction to external signals through collaborating with the community	TBD	<ul style="list-style-type: none"> Gaining community engagement and investment Understanding and realizing financial and co-benefits for communities Cost of connections to the grid for smaller/medium sized projects 	<ul style="list-style-type: none"> Engage collaboratively with communities to analyse a whole village/neighbourhood energy system Develop whole energy solutions business case templates covering retrofit, generation, selling energy, community tariffs Develop joint venture opportunities between Councils and communities to set up and invest in community energy schemes Put together share offers/crowd funding platforms for community energy Skills development for community energy including data analysis, procurements, financing and land opportunities This mission will coincide with investment into the grid
Nature Based Solutions	Offsetting/insetting hard to treat carbon emissions from the energy systems	TBD	<ul style="list-style-type: none"> Verifying offsets Gaining investment in the carbon market 	<ul style="list-style-type: none"> <u>Land owners</u> benefitting from private funding through peatland offsets whilst protecting and maintaining wildlife. Utilise finance mechanisms to de-risk investment and encourage buy in Work with an offset verification partner