Cambridgeshire County Council

2030: What is the energy delivery challenge?

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Introduction

Energy

- Where do we want to be in 2030? (CRIF)
- What does the evidence tell us about getting there?
- What are we doing about it locally? (CEF/MLEI)

Cambridgeshire Renewables Infrastructure Framework (CRIF)
Community Energy Fund (CEF)
Mobilising Local Energy Investment (MLEI)

For Cambridgeshire

Loss of £ per annum in Cambridgeshire due to **additional** energy costs alone by 2020 (from 2004 baseline)	Investment needed in energy infrastructure to deliver 28% of Cambridgeshire's energy from renewables by 2031	No of jobs created to deliver at least 28% of Cambridgeshire's energy by 2031 from RE	No of RE infrastructure schemes to be delivered by public sector, community and commercial sector
Approx £150 million p.a.	Approx £2.3 billion (Public Sector £320million Community £792million Commercial £1.2billion)	11,496	1,050

For the UK

Amount of money spent on energy in 2009 in the UK?	How much more energy do we use now compared to 1980's?	What is our current reliance on global energy markets?	What is our reliance on fossil fuels?
More than £58 billion with approximately £5billion wasted!	Energy consumption from 1980-2005 rose by 67% for the transport sector, 18% for the domestic sector and 8% for the service sector.	The first quarter of 2012, 38% of the UK's energy consumption was imported from abroad.	UK's fossil fuel dependency was 88.0 per cent in the first quarter of 2012

Cambridgeshire is progressing well

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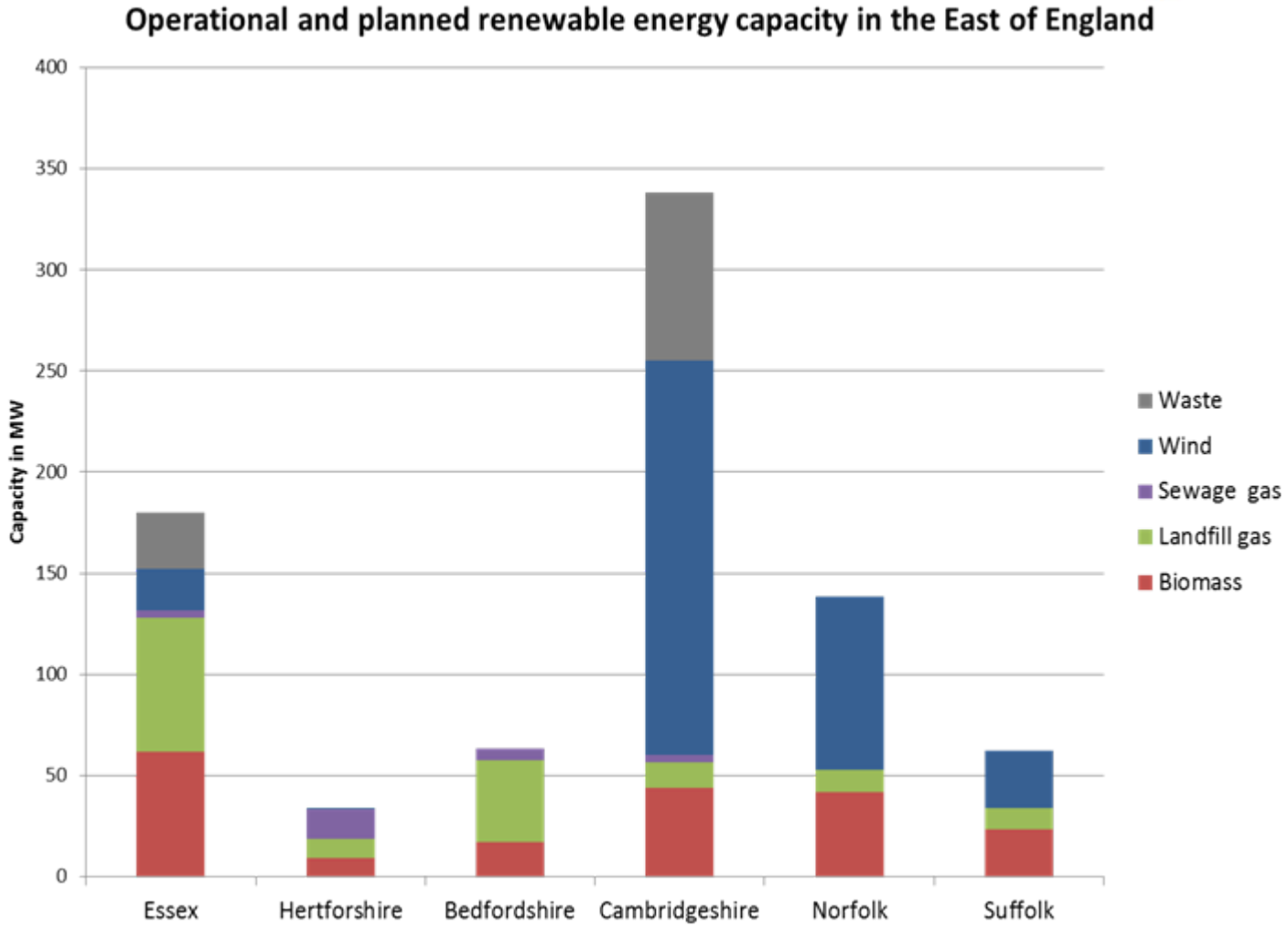

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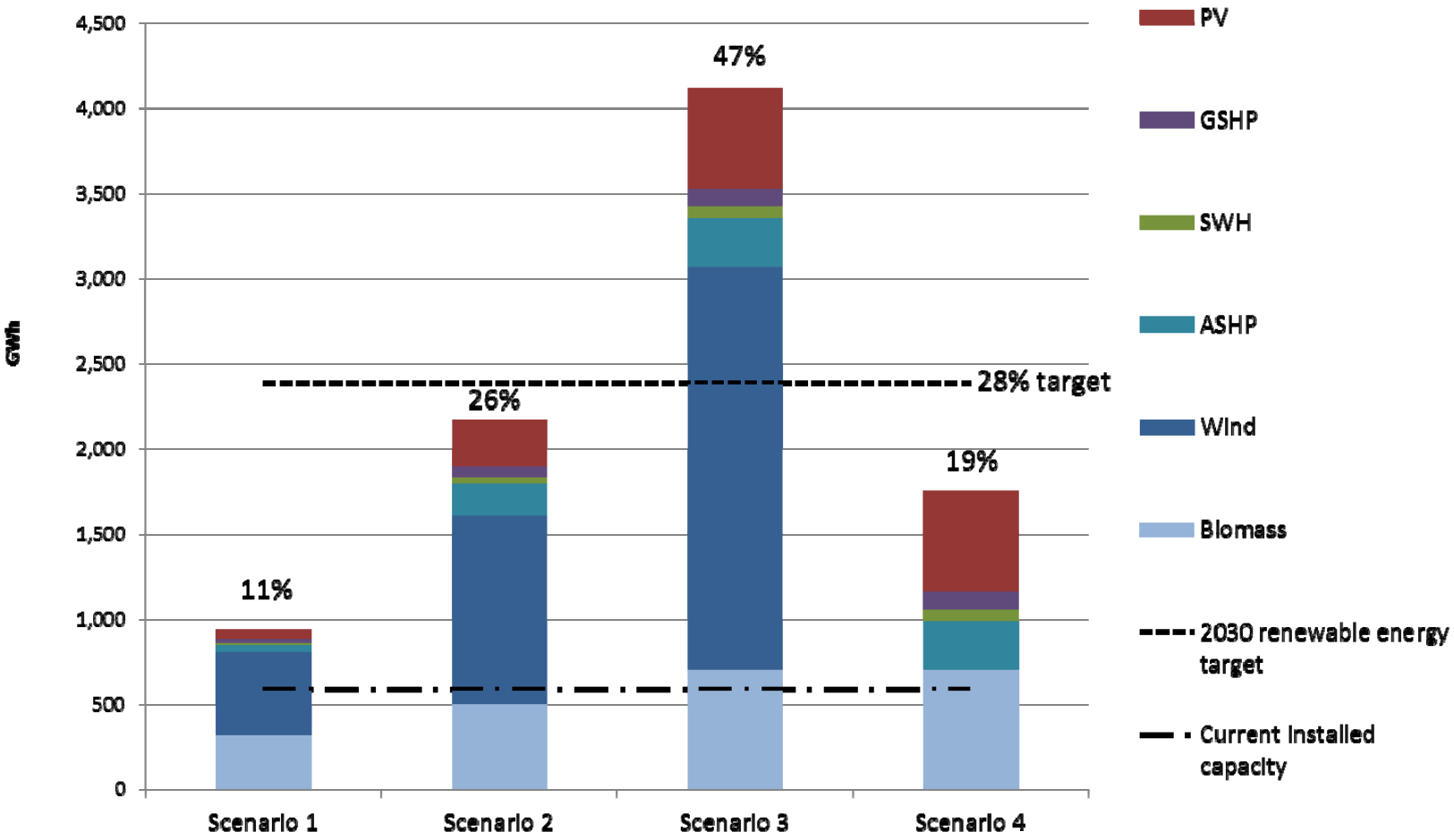
Cambridgeshire renewable energy deployment potential by 2031



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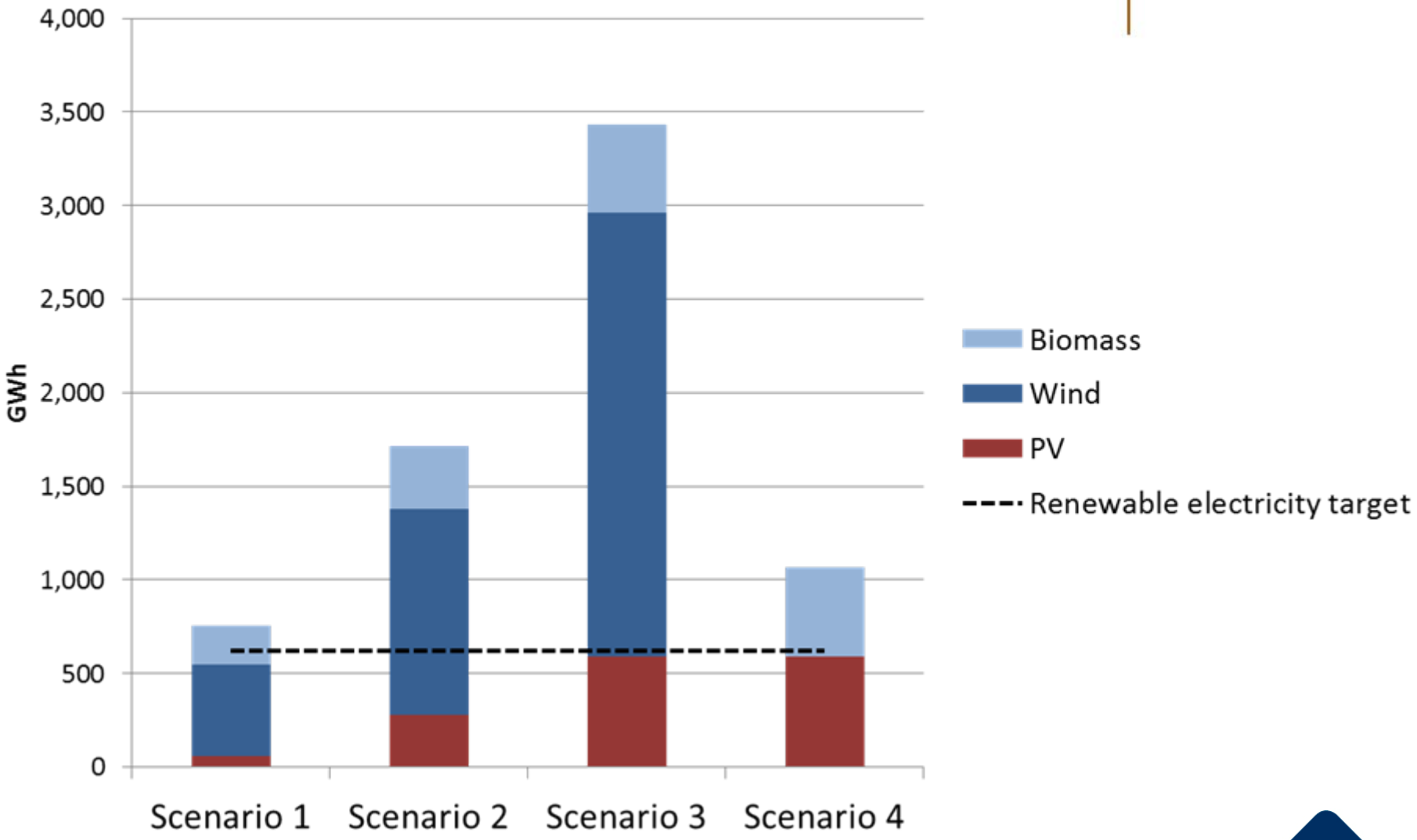
Renewable electricity deployment potential by 2031



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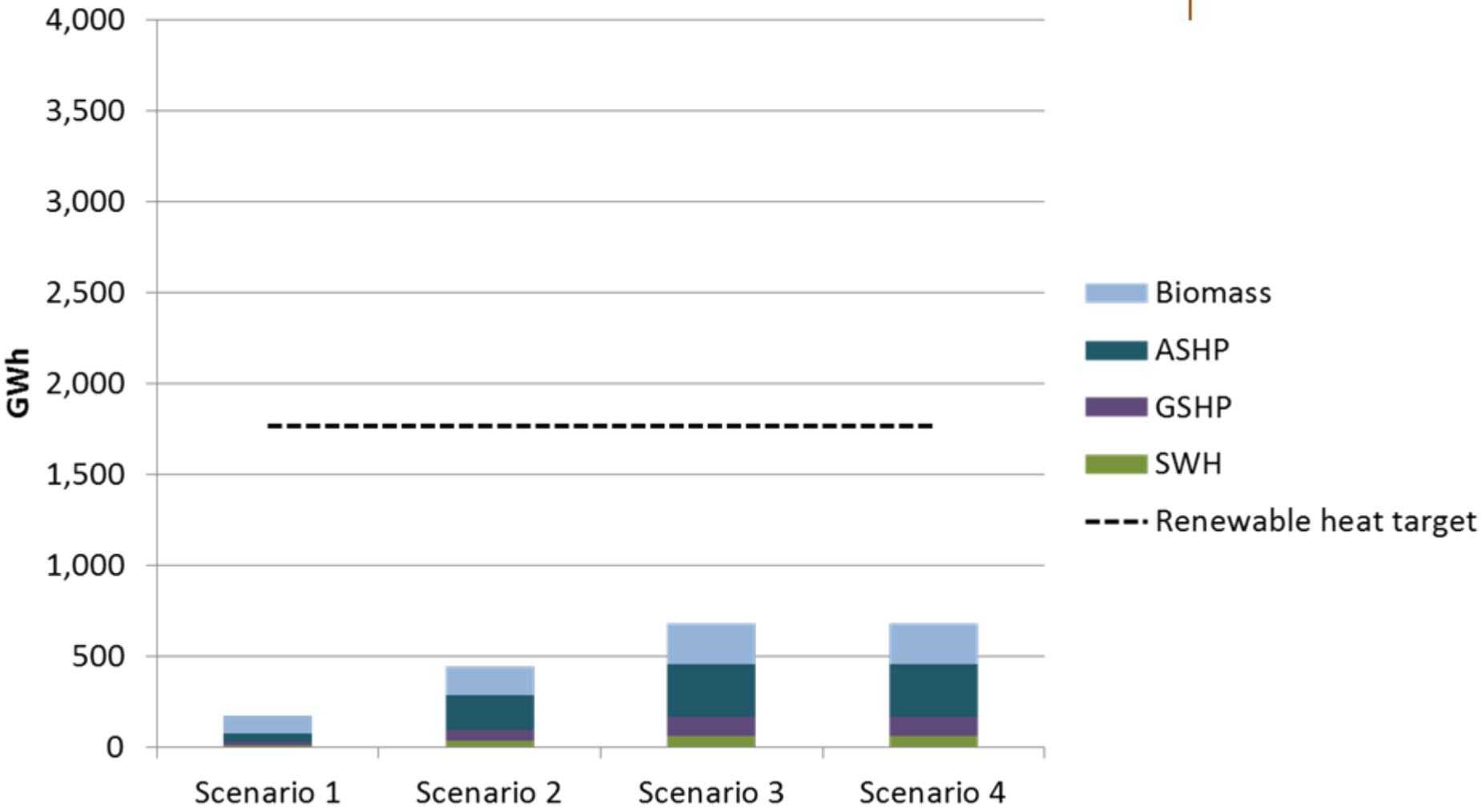
Renewable heat deployment potential by 2031



Substantial infrastructure is needed

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Technology	Scenario 1	Scenario 2	Scenario 3	Scenario 4
PV (2.5 kW)	28,140	134,234	288,634	288,634
SWH	7,970	21,045	40,437	40,437
GSHP (5kW)	3,404	10,728	17,359	17,359
ASHP (5kW)	7,269	31,484	47,908	47,908
Wind (2.5 MW)	94	212	455	0
Biomass (1.5 MW)	18	27	30	30
Total	**46,895**	**197,730**	**394,824**	**394,368**

Significant investment opportunity

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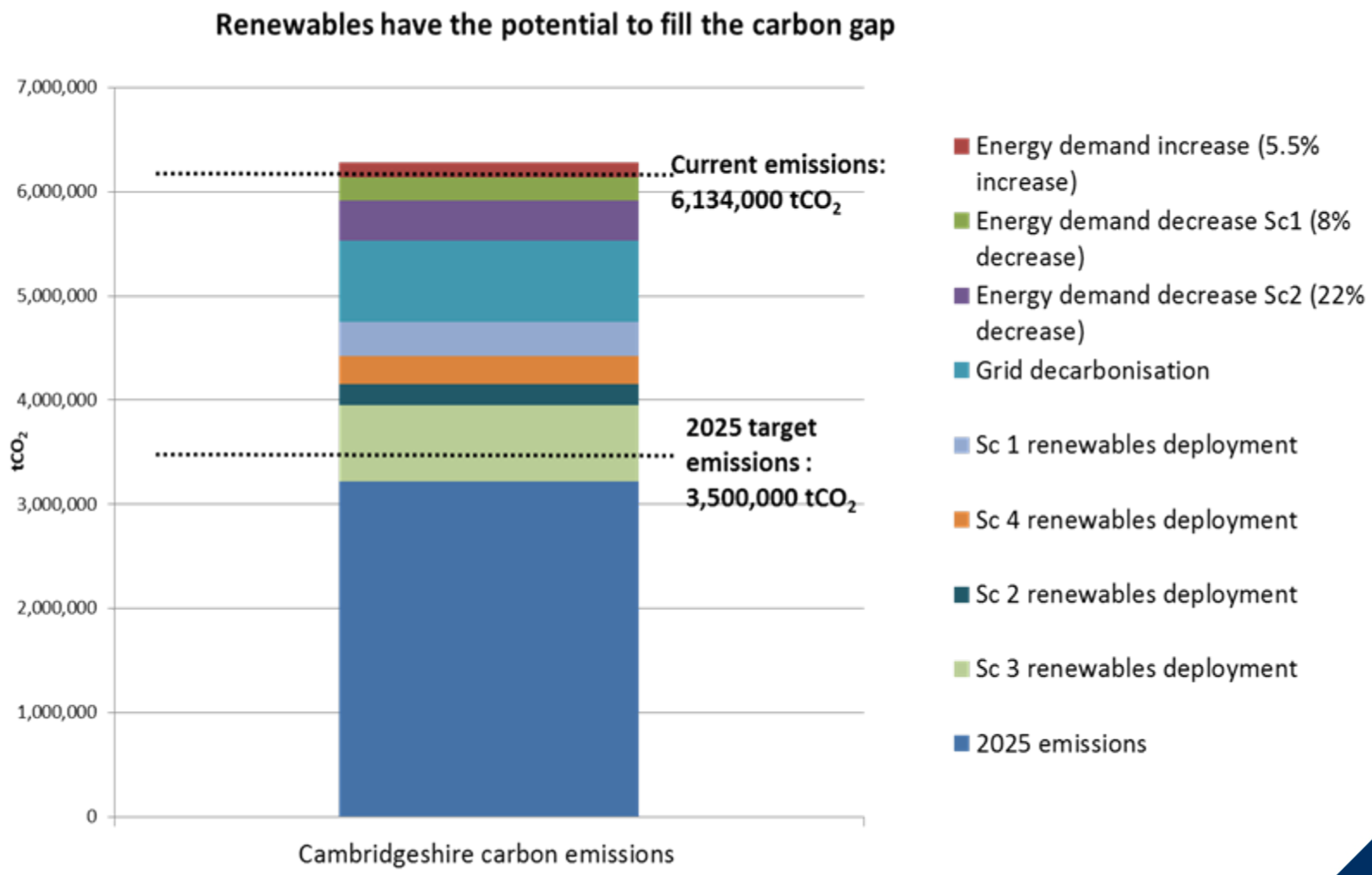
Technology	Scenario 1	Scenario 2	Scenario 3	Scenario 4
PV	£371	£1,770	£3,806	£3,806
SWH	£46	£120	£231	£231
GSHP	£28	£89	£144	£144
ASHP	£48	£207	£315	£315
Wind	£293	£664	£1,423	£0
Biomass	£135	£200	£225	£225
Total	**£920**	**£3,051**	**£6,145**	**£4,722**

Energy efficiency and renewable energy can close the carbon 'gap'



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Community

Public Sector

Commercial

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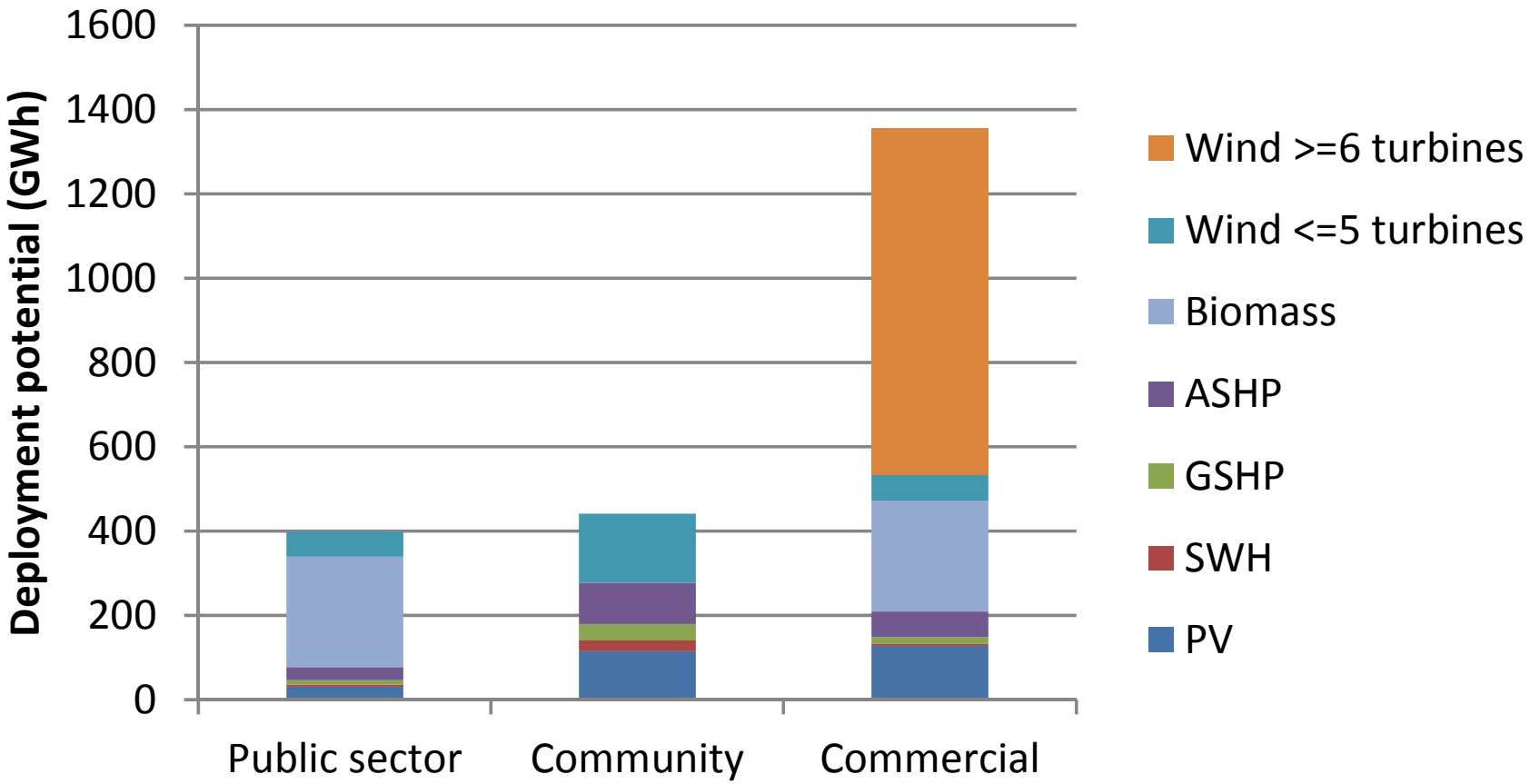
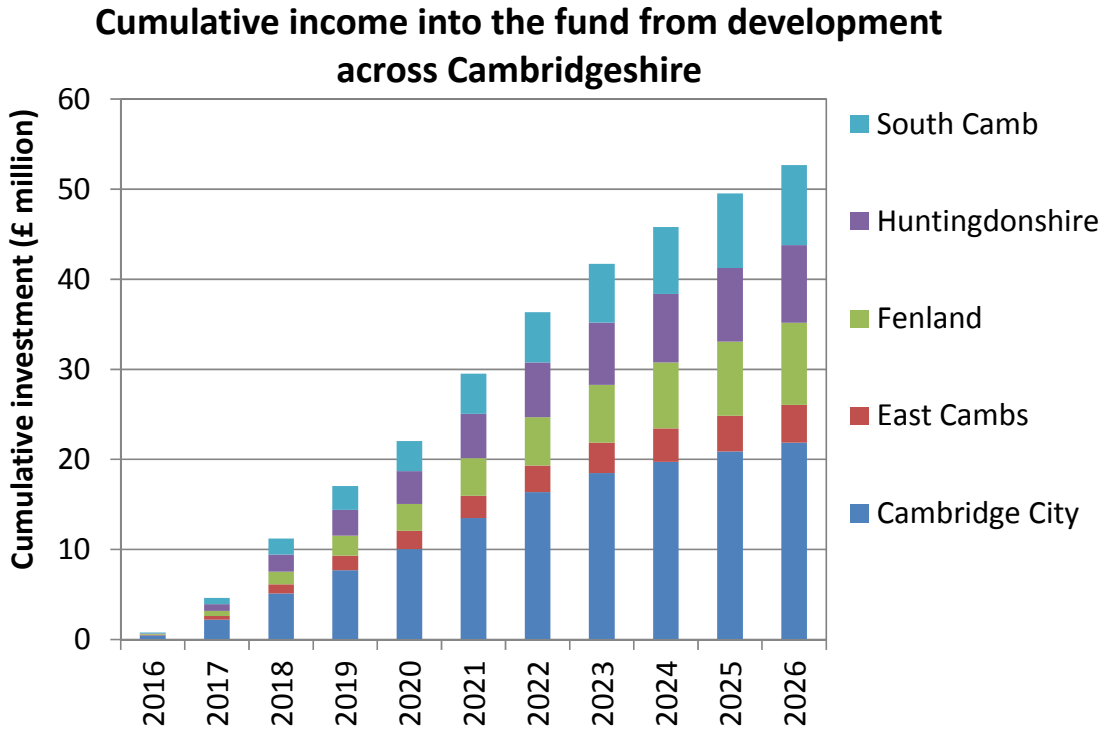
Deployment potential by pathway



The income into the fund from development has been forecast on the basis of growth projections



- The amount of money raised through Allowable Solutions is highly dependent on the price (£/tCO_2) and the levels of growth – both are uncertain.
- The Community Energy Fund will not necessarily capture all of this investment, -private sector energy funds will compete for the developers' business.
- The forecast investment generated is substantial, but of a scale that suggests Cambridgeshire's local authorities should partner rather than develop individual funds.

For local authorities to maintain control over how developer payments are invested, the local plan must include Allowable Solution policies

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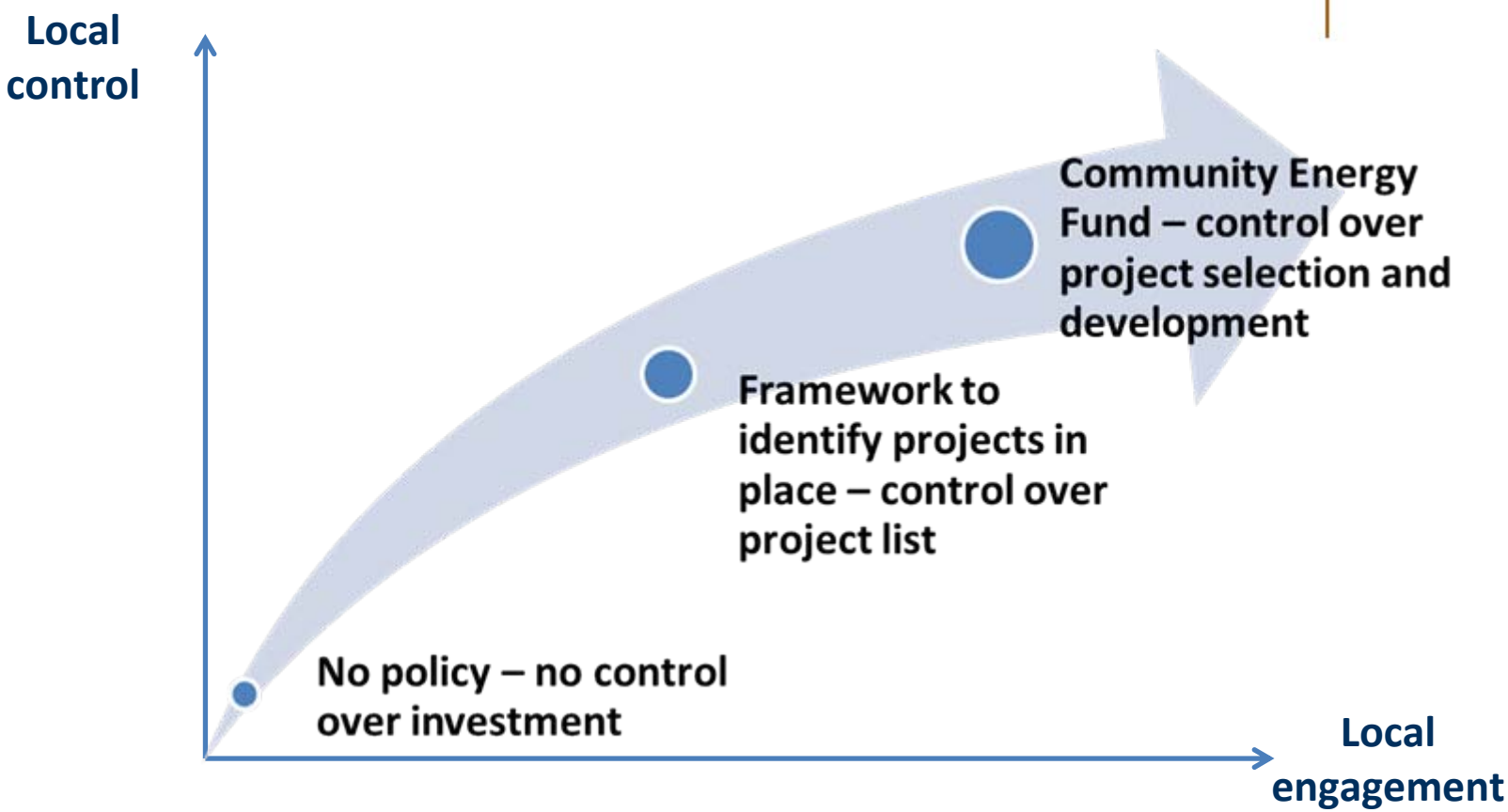

As a minimum Local Authorities require a mechanism for approving Allowable Solutions within the Local Plan and an evidence base to support the selection.

Community energy fund is a means of channelling developer investment in carbon reduction into the local area

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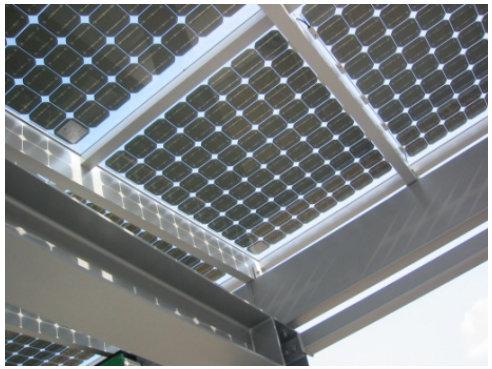
Developer CO_2 reduction obligation

On-site CO_2 reduction
% of target met through on-site measures



Payment to Fund
% of target met by payment into an Energy Fund

The Community Energy Fund

Developer investments are pooled in the Fund → **Fund invests in local low carbon projects**

Potential revenue into the Fund →

MLEI Project

Mobilising Local Energy Investment

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- CCC is the Lead Partner
- Partners include: HDC, SCDC, Cambridge City, PCC and the University of Cambridge*
- €1.117m / £931,038 total project value
- 75% grant from EU worth £700,000 (Total budget €1.2 million)
- 36 months duration from 21 August 2012

What will MLEI Deliver?

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- A Low Carbon Investment Fund of circa £20 million aligning private and public sector investment
- An Energy Services Company (ESCO) (or similar) to manage infrastructure delivery
- A mechanism to deliver retrofit schemes which can grow to support Green Deal implementation
- Delivery of an Investment Programme of public sector renewable energy and energy efficiency projects