

South Derbyshire EPCs Portfolio results Session 2

Energy Services supports organisations to switch to renewable and low carbon energy solutions

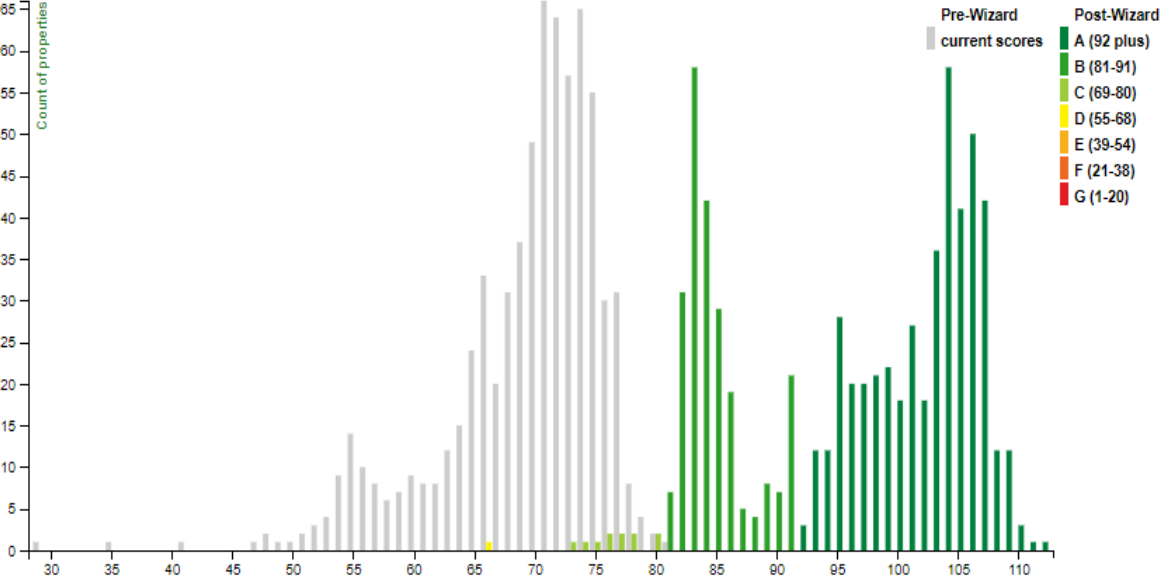
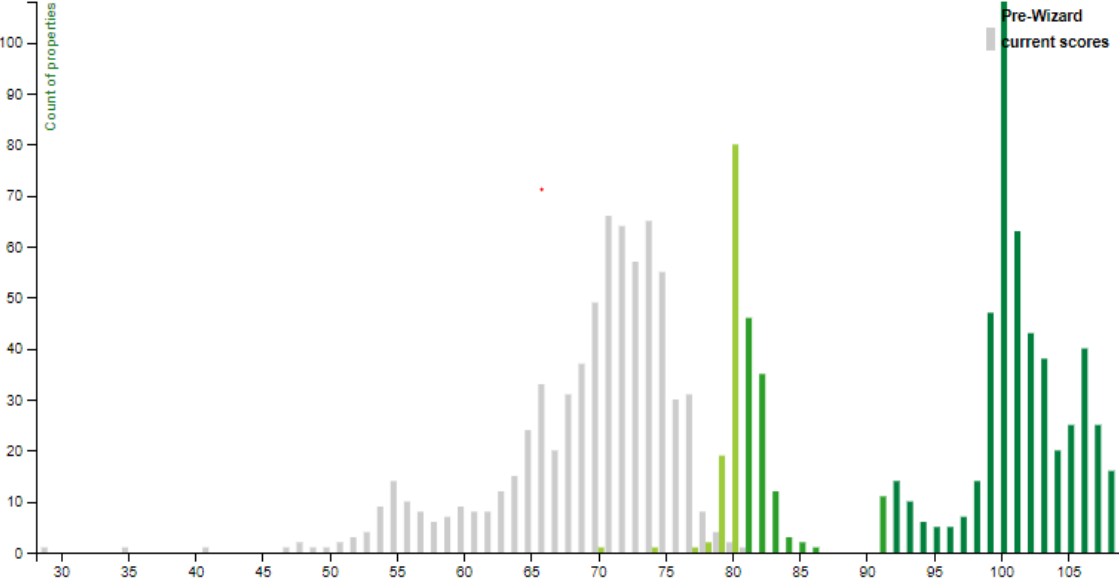
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Zero Carbon SAP 994 (Current Carbon Factors)



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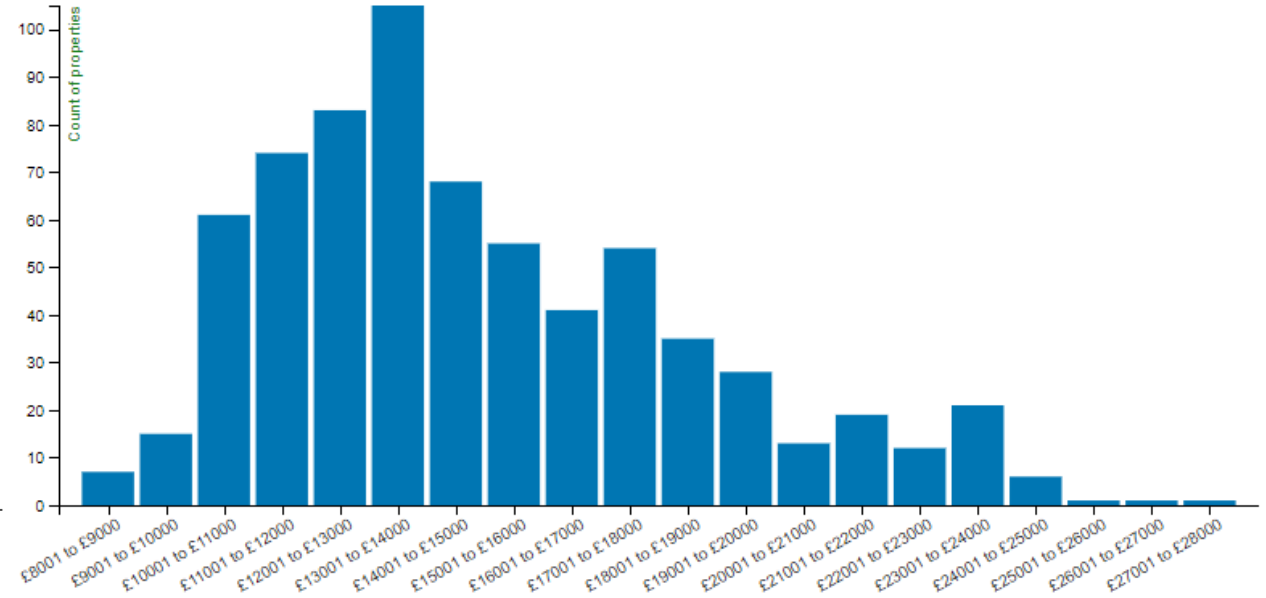
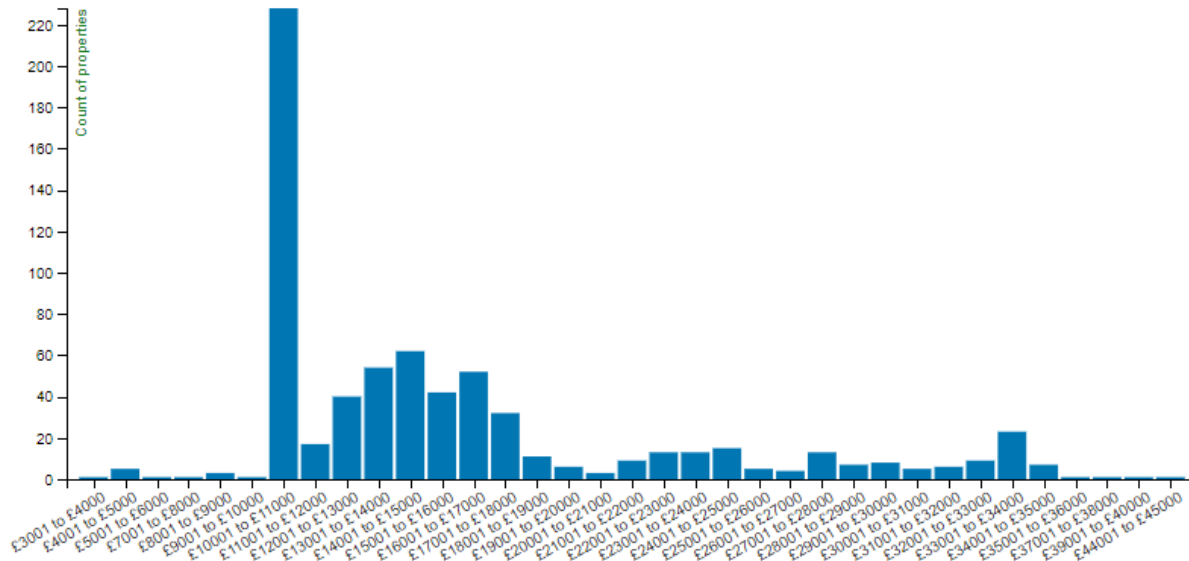
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Investment breakdown



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	Complete Stock	Complete Stock	Complete Stock
Homes	700 🏠	700 🏠	700 🏠
Mean SAP	69.28 C (+0.00)	95.18 A (+25.90)	95.89 A (+26.61)
Mean EI	69.35 C (+0.00)	96.58 A (+27.23)	96.09 A (+26.75)
Mean Fuel Bills	£550.29 (+0.00)	£77.78 (-472.51)	£67.59 (-482.70)
Mean Fuel Bill (realistic)	£595.55 (+0.00)	£207.57 (-387.98)	£147.7 (-447.85)
Mean tCO ₂	2.435 (+0.000)	0.232 (-2.203)	0.289 (-2.146)
Mean 2017 tCO ₂	1.962 (+0.000)	0.999 (-0.963)	1.302 (-0.660)
Mean 2019 tCO ₂	2.027 (+0.000)	0.112 (-1.915)	0.737 (-1.290)
Mean 2025 tCO ₂	1.868 (+0.000)	0.057 (-1.810)	0.953 (-0.915)
Mean 2030 tCO ₂	1.840 (+0.000)	0.048 (-1.792)	0.990 (-0.850)
Mean 2038 tCO ₂	1.788 (+0.000)	0.030 (-1.758)	1.061 (-0.727)
Mean 2050 tCO ₂	1.772 (+0.000)	0.025 (-1.747)	1.082 (-0.689)
Mean Heating Bill	£506.11 (+0.00)	£357.21 (-148.90)	£371.07 (-135.04)
Mean TThreshold	18.47°C (minimal) (+0.00)	18.83°C (minimal) (+0.36)	18.71°C (minimal) (+0.24)
Mean kWh per M2	161.69 (+0.000)	9.73 (-151.960)	62.61 (-99.090)
kWh	9,509.73 (+0.000)	553.05 (-8956.680)	3,690.66 (-5819.070)

Stock comparison pre/post measures
- inclusive of renewables (PV) C+B.s.
- carbon emissions – vary hugely due to gas consumption. Highlights requirement to move to electric heating



Fabric measures

Fabric 1739 £4,221,269	Walls 523 £1,814,694	Cavity 373 £1,332,577	Cavity Insulation 1 £530
			Internal to Cavity 284 £1,244,047
			Insulate Party Wall 88 £88,000
		Solid 17 £67,063	Internal to Solid 17 £67,063
		Timber 32 £236,865	Internal to Timber 32 £236,865
		Other 101 £178,189	Alternate Wall 101 £178,189
	Roofs 222 £116,520	Loft Insulation 189 £75,148	Virgin 3 £1,673
			Top Up 160 £58,152
			Unknown, No Access to Loft 19 £11,000
			Unknown, Access to Loft 7 £4,315
		Flat Roof Insulation 32 £41,048	
		Rafter or Ceiling Insulation 1 £324	
Floors 450 £743,978	Solid Floors 343 £589,079		
	Suspended Timber Floor 98 £141,178		
	Suspended Not Timber Floor 1 £1,471		
	Exposed Floor 8 £12,250		
Glazing 538 £1,544,577	Double 317 £1,256,317	A+ rated 5 £27,376	
		A++ rated 312 £1,225,346	
	Triple (A++ rated) 1 £10,660		
	Doors 220 £277,600		
Draughts 6 £1,500	Chimneys 6 £1,500		

Fabric 3349 £7,776,987	Walls 1012 £3,180,971	Cavity 750 £2,472,259	Cavity Insulation 7 £3,917
			Internal to Cavity 555 £2,280,342
			Insulate Party Wall 188 £188,000
		Solid 18 £70,085	Internal to Solid 18 £70,085
		Timber 56 £306,608	Internal to Timber 56 £306,608
		Other 188 £332,019	Alternate Wall 188 £332,019
	Roofs 505 £241,056	Loft Insulation 457 £185,307	Virgin 3 £1,673
			Top Up 427 £167,974
			Unknown, No Access to Loft 20 £11,345
			Unknown, Access to Loft 7 £4,315
		Flat Roof Insulation 47 £55,425	
		Rafter or Ceiling Insulation 1 £324	
Floors 577 £960,363	Solid Floors 453 £783,198		
	Suspended Timber Floor 101 £145,664		
	Suspended Not Timber Floor 7 £11,794		
	Exposed Floor 16 £19,707		
Glazing 1248 £3,391,097	Double 700 £2,759,097	A++ rated 700 £2,759,097	
	Doors 548 £632,000		
Draughts 6 £1,500	Chimneys 6 £1,500		
Conservatory 1 £2,000			
Lighting 349 £11,820			
Photovoltaics 700 £2,658,900			

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Zero Carbon Investment Costs

Total Scenario Cost: **£11,640,081**

Cost per Home Affected: **£16,629**

Mean 2017 tCO ₂	0.999 (-0.963)	0.999 (-0.963)	0.999 (-0.963)
Mean 2019 tCO ₂	0.112 (-1.915)	0.112 (-1.915)	0.112 (-1.915)
Mean 2025 tCO ₂	0.057 (-1.810)	0.057 (-1.810)	0.057 (-1.810)
Mean 2030 tCO ₂	0.048 (-1.792)	0.048 (-1.792)	0.048 (-1.792)
Mean 2038 tCO ₂	0.03 (-1.758)	0.030 (-1.758)	0.030 (-1.758)
Mean 2050 tCO ₂	0.025 (-1.747)	0.025 (-1.747)	0.025 (-1.747)

Total Scenario Cost: **£10,447,707**

Cost per Home Affected: **£14,925**

Mean tCO ₂	0.289 (-2.146)
Mean 2017 tCO ₂	1.302 (-0.660)
Mean 2019 tCO ₂	0.737 (-1.290)
Mean 2025 tCO ₂	0.953 (-0.915)
Mean 2030 tCO ₂	0.99 (-0.850)
Mean 2038 tCO ₂	1.061 (-0.727)
Mean 2050 tCO ₂	1.082 (-0.689)

Next steps

- Provide:
 - Base data
 - Cleansed data
 - EPCs
 - XML
 - Potentially LIG XML dependant upon payment



Any Questions?

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