

## Appendix A3: Additional retrofit and heat network results

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## Appendix A3 – further results

### Total retrofit savings for domestic buildings – shallow, deep and blended, Accelerated Green

#### Non-domestic retrofit

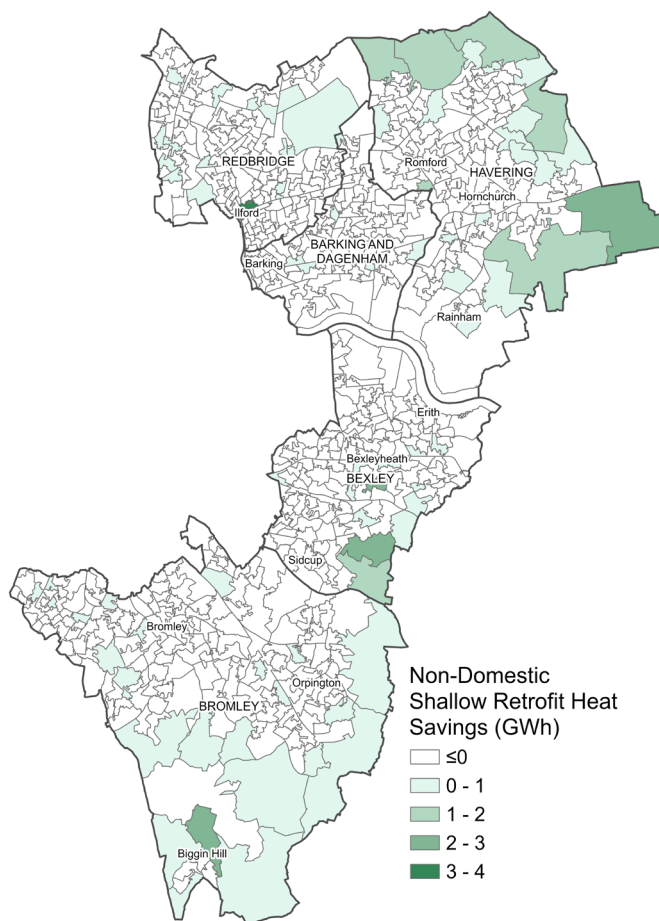


Figure A.1: non-domestic heating demand savings from shallow retrofit

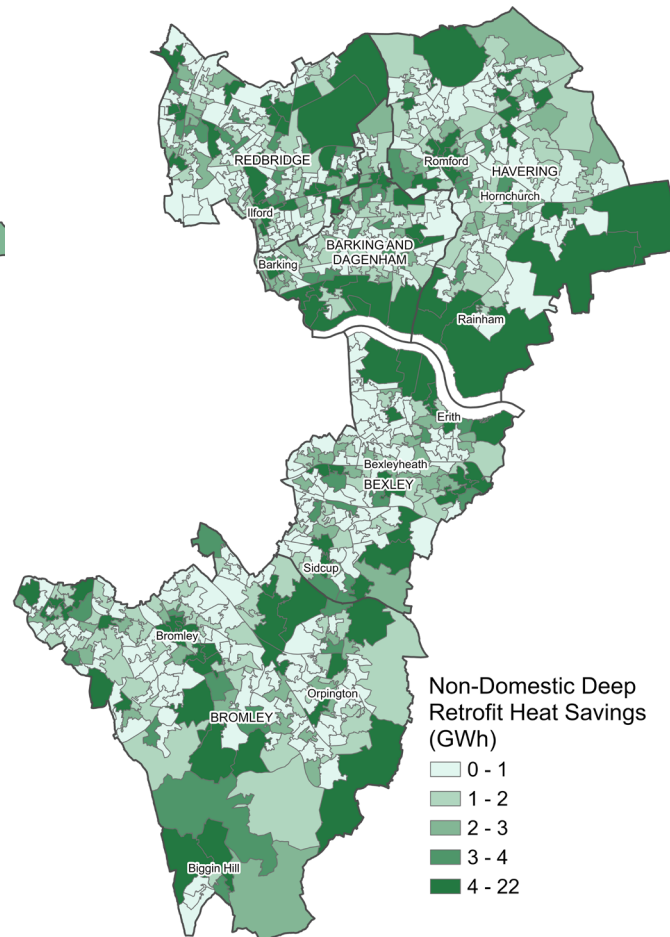


Figure A.2: non-domestic heating demand savings from deep retrofit

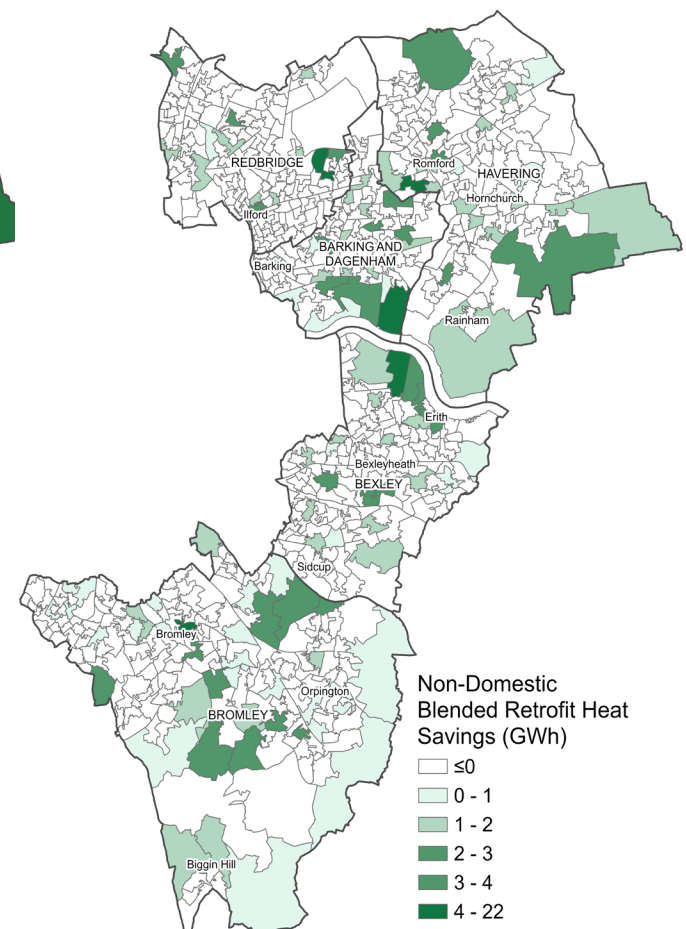


Figure A.3: non-domestic heating demand savings from blended retrofit

## Appendix A3 – further results

### Total retrofit savings for non-domestic buildings – shallow, deep and blended, Accelerated Green

#### Domestic retrofit

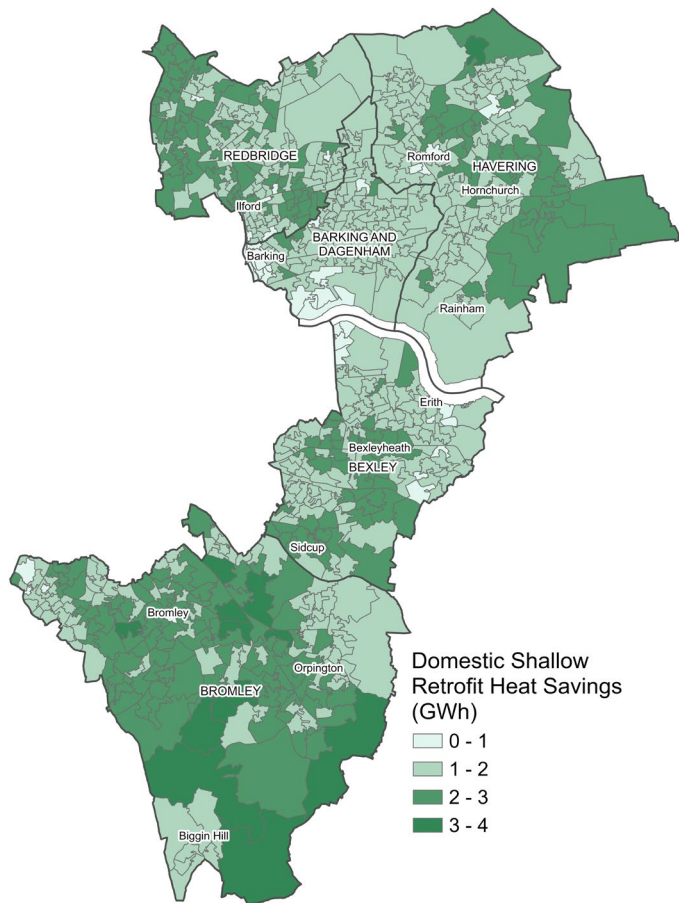


Figure A.4: domestic heating demand savings from shallow retrofit

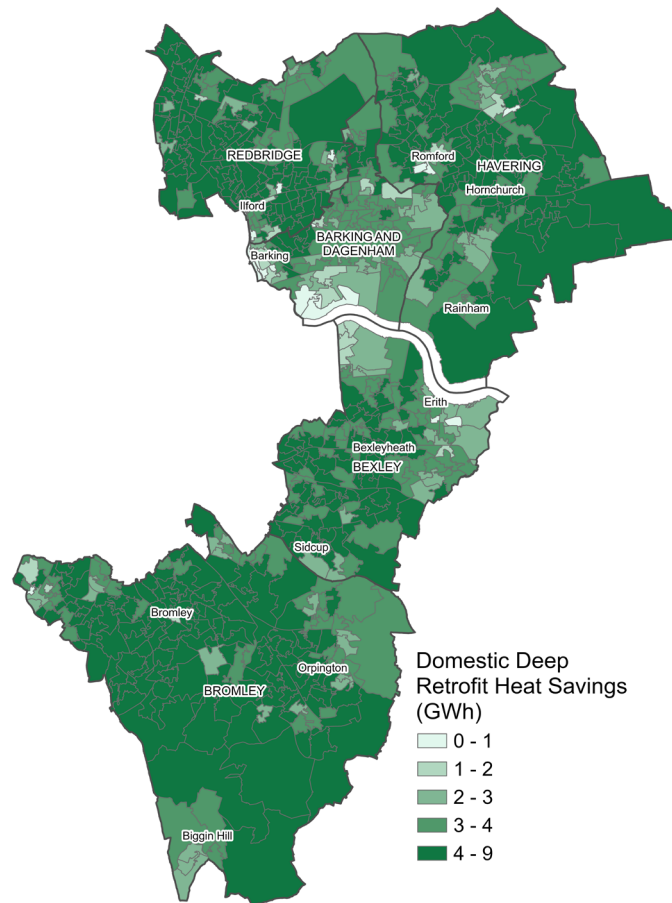


Figure A.5: domestic heating demand savings from deep retrofit

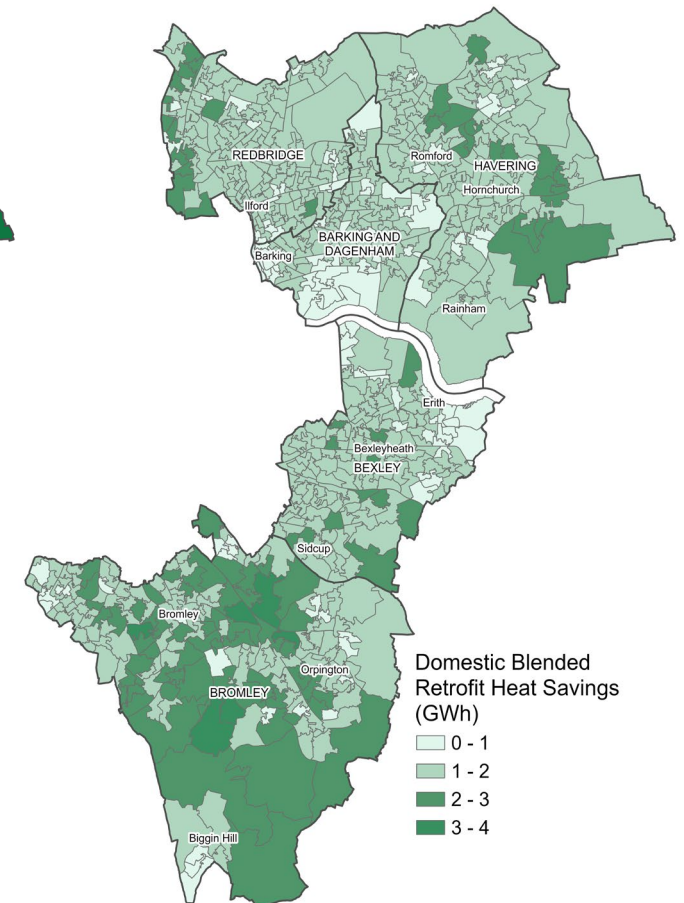


Figure A.6: domestic heating demand savings from blended retrofit

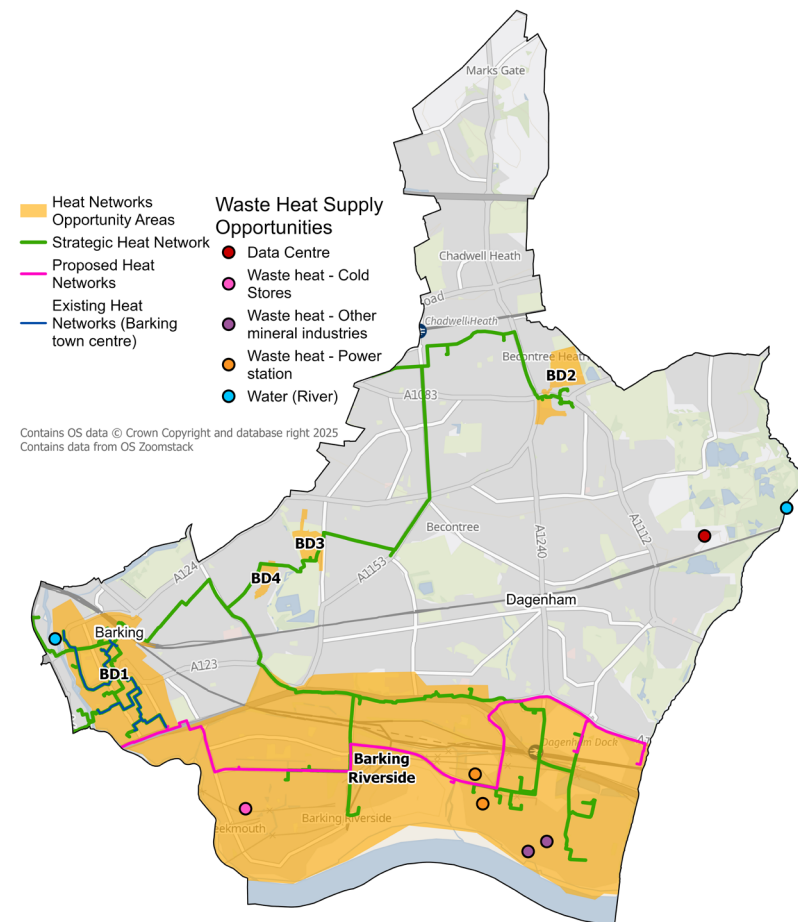
## Appendix A3 – further results

### High-level heat networks analysis

#### Barking and Dagenham

	BD1 (Refined to Barking Town Centre)	BD2 (Refined to Becontree Heath*)	BD3	BD4
Annual heat offtake (GWh/year)	28.3	12.9	16.5	2.1
Connections	154	7	6	4
Heat sources	ASHP	ASHP	ASHP	ASHP
Network CAPEX (£m)	40.5	15	16	3.1
Network length (km)	4	124	0.1	0.2
NPV (£m)	82	33.2	39.7	6.2
LHD (MWh/m)	7.2	104	306	14

#### Barking and Dagenham heat network opportunity metrics and KPIs

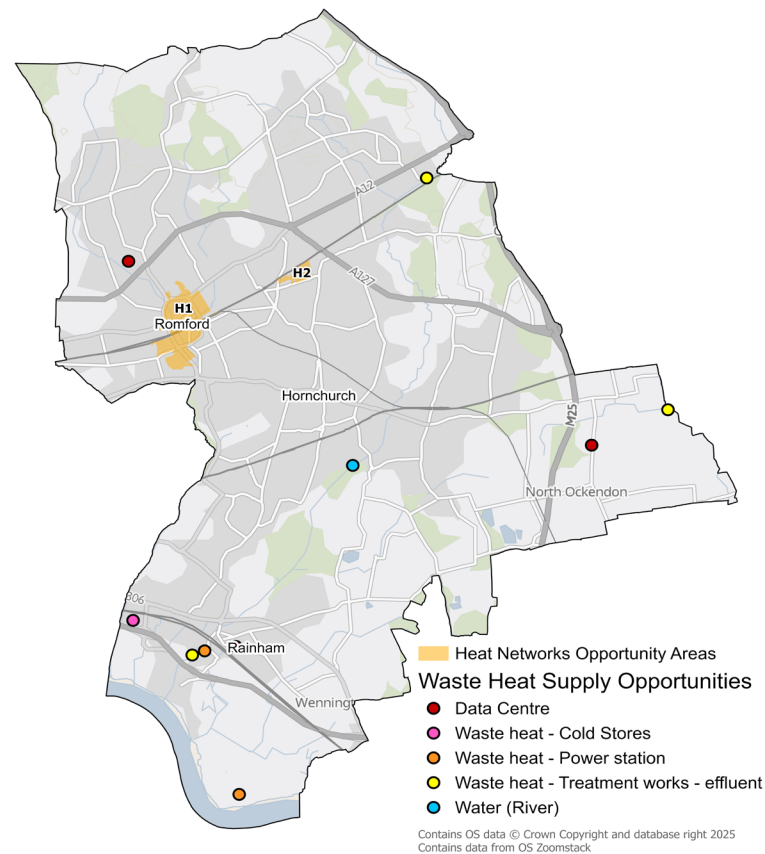


## Appendix A3 – further results

### High-level heat networks analysis

#### Havering

	H1 (Refined to Romford Town Centre)	H2
Annual heat offtake (GWh/year)	177	12.4
Connections	343	4
Heat sources	DC	ASHP
Network CAPEX (£m)	242	13.8
Network length (km)	12.3	0.5
NPV (£m)	282	31.4
LHD (MWh/m)	14.4	24.5



#### Havering heat network opportunity metrics and KPIs

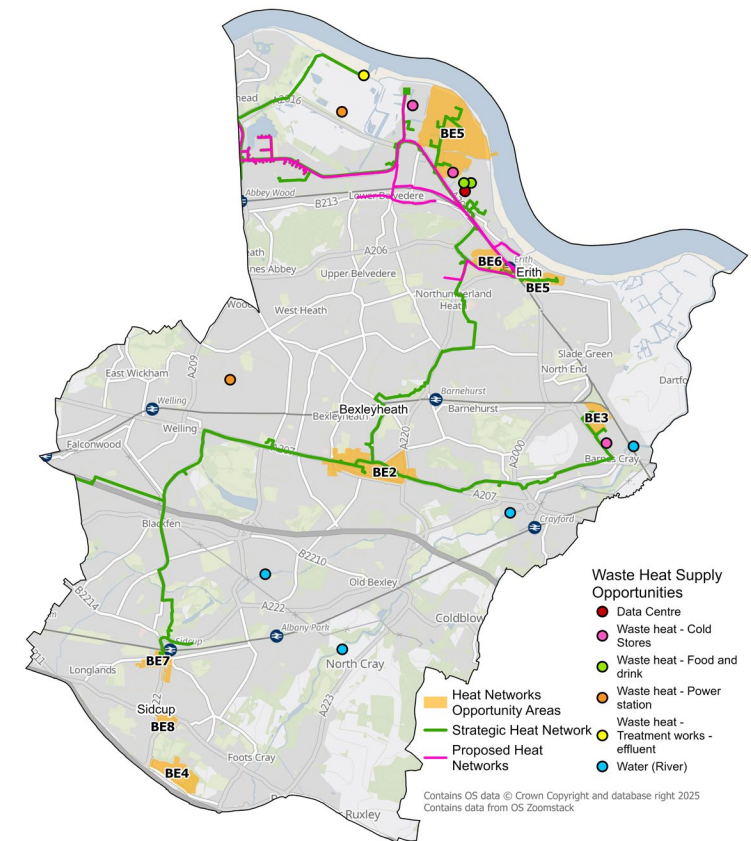


## Appendix A3 – further results

### High-level heat networks analysis

#### Bexley

	BE1 (Refined to Belvedere Industrial Area)	BE2 (Refined to Bexleyheath Town Centre)	BE3	BE4	BE5	BE6	BE7	BE8
Annual heat offtake (GWh/year)	23.9	45.8	9.7	37.5	7.6	7.1	4.2	0.8
Connections	70	126	31	21	29	21	14	17
Heat sources	ASHP	ASHP	ASHP	ASHP	ASHP	ASHP	ASHP	ASHP
Network CAPEX (£m)	32.5	57.9	13.8	34.4	13.3	11.8	7	2.2
Network length (km)	4.4	4.7	1.2	1.2	1.4	1.00	0.6	0.2
NPV (£m)	67.8	124	28	87.4	24.5	22.2	13.2	3.5
LHD (MWh/m)	5.4	9.8	8.3	32	5.6	7.1	7	3.9



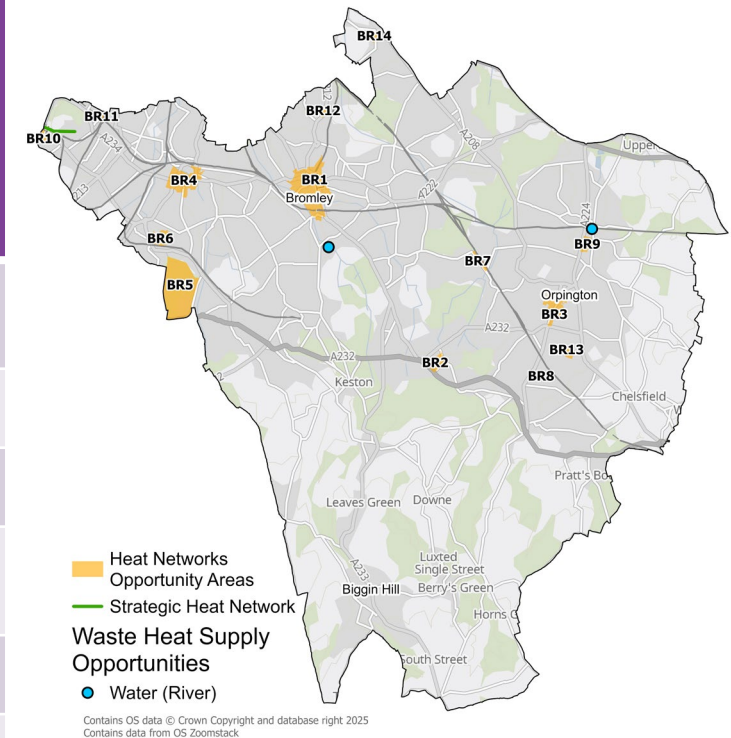
#### Bexley heat network opportunity metrics and KPIs

## Appendix A3 – further results

### High-level heat networks analysis

#### Bromley

	BR1 (Refined to Bromley Town Centre)	BR2	BR3	BR4	BR5	BR6	BR7	BR8	BR9	BR10	BR11	BR1	BR13	BR14
Annual heat offtake (GWh/year)	57	42.47	24.3	18.41	14.73	13.06	8.68	8.36	5.13	2.22	1.99	1.36	0.93	0.88
Connections	1561	35	131	176	28	4	45	5	14	2	5	5	5	3
Heat sources	ASHP	ASHP	ASHP	ASHP	ASHP	ASHP	ASHP	ASHP	ASHP	ASHP	ASHP	ASHP	ASHP	ASHP
Network CAPEX (£m)	49	40.42	33.74	32.76	18.59	14.76	13.43	10.54	7.5	3.35	3.06	1.95	1.69	1.51
Network length (km)	8.5	1.93	3.19	3.97	1.76	0.132	1.20	0.219	0.504	0.027	0.059	0.053	0.111	0.055
NPV (£m)	58	100.8	69.28	60.43	40.02	33.3	26.14	22.48	14.98	13.21	5.96	3.94	3.09	2.82
LHD (MWh/m)	6.7	22	7.63	4.65	8.35	98.7	7.23	38.2	10.2	81.6	33.6	25.7	8.42	16.1



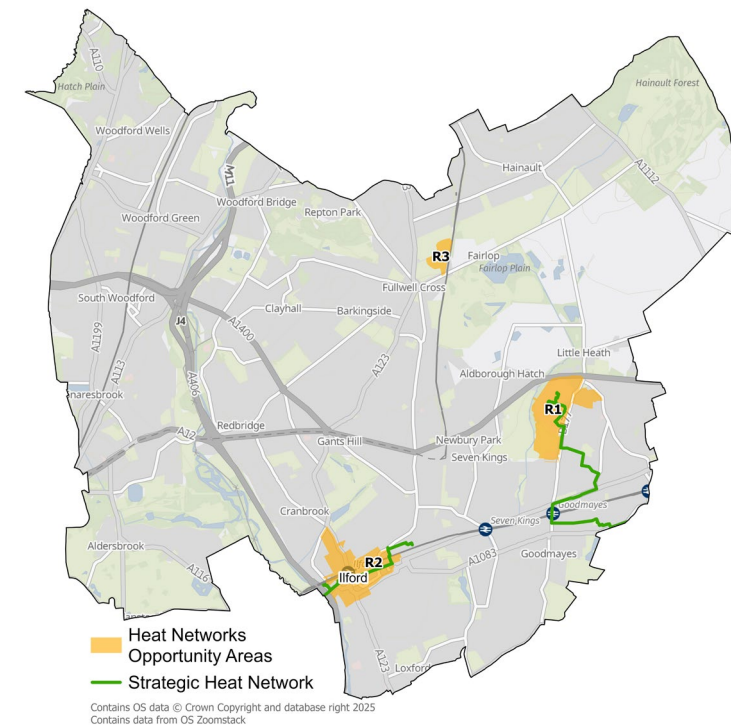
#### Bromley heat network opportunity metrics and KPIs

## Appendix A3 – further results

### High-level heat networks analysis

#### Redbridge

	R1 (Refined to King George Hospital Area)	R2 (Refined to Ilford Town Centre)	R3
Annual heat offtake (GWh/year)	75.3	65.1	15.13
Connections	64	279	3
Heat sources	ASHP	ASHP	ASHP
Network CAPEX (£m)	70.6	84.2	17.01
Network length (km)	3.5	7.8	0.201
NPV (£m)	178	179	38.62
LHD (MWh/m)	21.8	8.4	75.2



#### Redbridge heat network opportunity metrics and KPIs