ThamesWey

Local Authority Delivery Phase 1 (Green Jump Surrey) – Final Project Report

This report outlines the achievements and challenges of the Local Authority Delivery Phase 1 project, delivered as "Green Jump Surrey". This project ran from October 2020 through to March 2022 and consisted of Phase 1A and Phase 1B.

1. Background and wider context

In July 2020, £2bn of funding was announced through the Green Homes Grant to support the UK's commitment to net zero by 2050, through improving the energy efficiency of the country's housing stock. £1.5m was allocated through the 'voucher scheme', and a further £500m was allocated for delivery via Local Authority (LA) partners through the Local Authority Delivery Scheme (LAD)[1].

The Department for Business, Energy and Industrial Strategy (BEIS) administered an initial round of funding competition among LAs of £200m through the LAD scheme, to raise the energy efficiency of households with low-income and low energy performance certificate ratings (EPCs). The project aimed to reduce fuel poverty across the country and initiate a phase-out of high carbon fossil fuel heating, while supporting 'green jobs'.

ThamesWey in collaboration with Woking Borough Council secured £6.3m of phase 1A funding in September 2020, with a target to upgrade 600 properties across Surrey. An additional £3.1m was awarded to expand the project to a further 300 households under Phase 1B in February 2021. Both proposals were informed by EPC data and BRE Fuel Poverty Data, combined with ONS Lower Layer Super Output Area (LSOA) Data. The projects were delivered by ThamesWey's well-established brand and energy efficiency advice service, Action Surrey. The project was branded as "Green Jump Surrey" to differentiate it from the voucher scheme and other national projects.

Woking Borough Council declared a 'climate and ecological emergency' alongside many other councils in 2019 and subsequently formulated a Climate Emergency Action Plan (CEAP) to achieve carbon neutrality by 2030. This plan focuses on targeting several action areas, including tackling fuel poverty and reducing domestic carbon dioxide emissions[2].The Green Jump Surrey project aligned with local drivers relating to Theme 1 of Woking Borough Council's "Woking 2050" strategy: "Home is where the heart is"[3]. The document sets out the strategy for a sustainable borough - aims of which are relatable across most Surrey Local Authority environmental targets, particularly those surrounding the reduction of domestic emissions from energy efficient properties. Externally funded government projects such as Local Authority Delivery schemes also align with ThamesWey's 2020-2023 Business Plan objectives and 2030 carbon reduction objectives.

2. Aims of the Local Authority Delivery (LAD) scheme.

The Green Jump Surrey project (LAD Phase 1A and 1B) aimed to install 900 homes across Surrey with at least one energy efficiency measure - such as insulation or low-carbon heating – to improve the EPC rating of properties across the county. This aligned with the overall funding objectives of tackling fuel poverty, supporting clean growth and supporting economic resilience, while delivering progress towards:

[1] Department for Business, Energy and Industrial Strategy Green Homes Grant: Local Authority Delivery Guidance for Local Authorities
[2] Climate Emergency Action Plan via: www.woking.gov.uk/nature-and-sustainability/climate-change/climate-emergency-action-plan
[3] Woking 2050: A Vision for a Sustainable Borough, 2015

- The statutory fuel poverty target for England
- The phasing out of the installation of high-carbon fossil fuel heating, and reducing air quality emissions
- The UK's target for net zero by 2050

Fuel poverty is measured using the Low Income Low Energy Efficiency (LILEE) indicator, and describes a fuel poor household as one that has an energy efficiency rating of band D or below, and when the spend required to heat the home leaves the household with a residual income below the official poverty line[4]. Household income, energy requirements and fuel prices are all factors used to determine fuel poverty.

Green Jump Surrey offered homeowners funded home energy efficiency improvements, up to £15,000. The initial £10,000 per property was funded by the government, and match funding of up to £5,000 from Surrey County Council enabled further funding to households requiring additional upgrades to improve the EPC rating.

Private rented properties and social housing were also eligible for upgrades providing tenants were eligible - these required landlord contribution of a third of the cost of works, allowing a maximum subsidy from the grant of £5,000. However, no private or social landlords took up the offer of this funding.

3. Parameters of the project

Eligibility for funding was determined by a combination of property and income criteria as follows:

- The property must have an EPC rating of E, F or G (Band Ds were later accepted under Phase 1B)

And

- The annual household income must be less than £30,000 gross.

Or

- The household must be in receipt of a means-tested benefit.

Applicant were required to prove they met one of the above income criteria, and were owner-occupiers of the property. Where a resident met these financial criteria but the pre-EPC was inaccurate, expired or non-existent, an EPC assessment was carried out, funded by the scheme.

Eligible measures comprised any energy efficiency or heating measure compatible with the Standard Assessment Procedure (SAP), upon which EPC ratings are based, with the exception of installing/replacing fossil fuel heating systems (i.e. gas boilers). Action Surrey offered measures that would provide the most cost-effective upgrades to ensure maximization of the funding. These included loft insulation, cavity wall insulation, solid wall insulation (including park home insulation), underfloor insulation, low energy lighting, air source heat pumps and solar thermal hot water systems. Phase 1B later permitted the inclusion of solar photovoltaics (PV).

In order to ensure high standard of installations and to comply with the conditions of the grant, Action Surrey expanded its robust installer network, accredited to Trustmark and MCS standards as appropriate.

[4] Department for Business, Energy and Industrial Strategy Fuel Poverty Statistics: via www.gov.uk

4. Execution of Delivery

Action Surrey utilised a range of marketing approaches throughout the project to maintain recruitment of eligible residents and target those most at risk of fuel poverty. These included digital marketing via social media, Google, radio adverts, press releases and website promotion, as well as printed media such as flyers, targeted mail-outs and articles in LA magazines. Residents on waiting lists from previous grant schemes were contacted, and an e-newsletter reached all Action Surrey mail subscribers. As the project progressed, positive feedback testimonials from customers were obtained to capture and share positive experiences from the scheme.

A team of five advisors were recruited alongside a project accountant, project officer and project manager. The upscaling enabled a high level of customer service to be provided and the installer network to be managed efficiently. Residents were assisted through each stage of the customer journey from enquiry to completed installations. The customer journey is illustrated below:

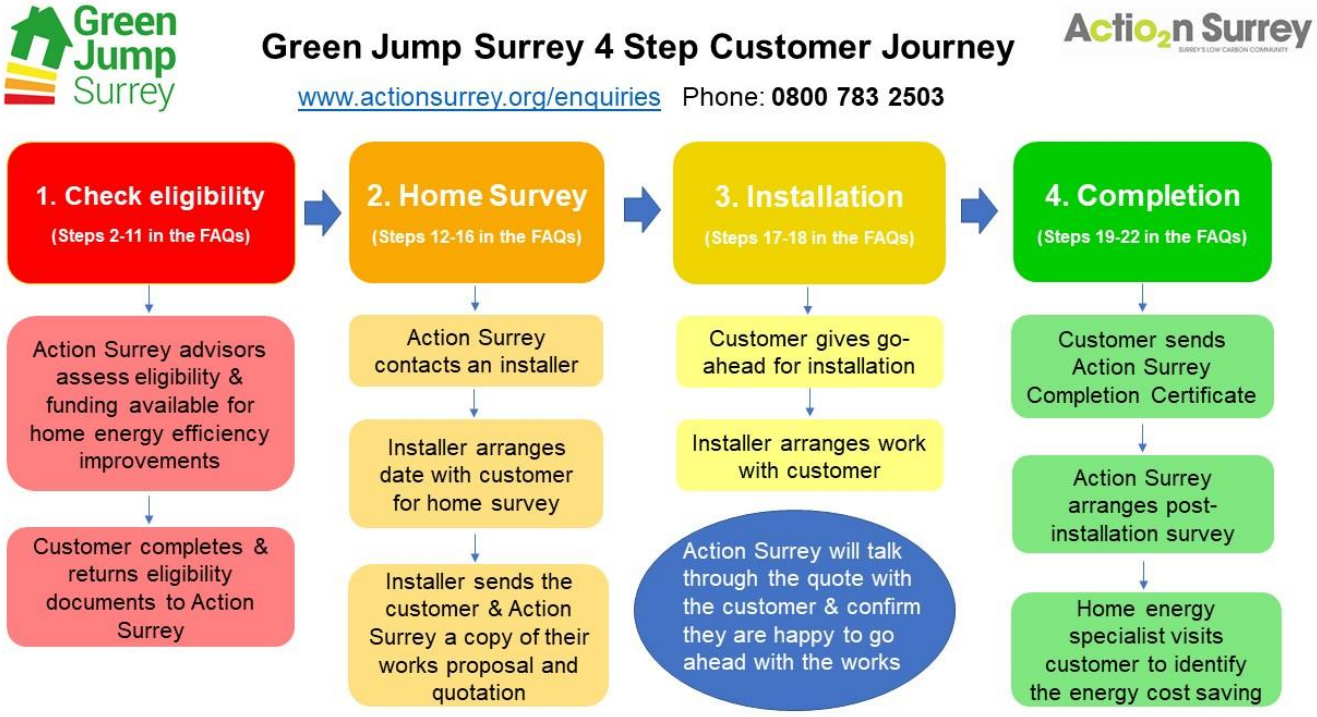

Figure 1: Customer Journey as presented to the residents upon Green Jump Surrey application

Towards the end of the project where the majority of households had fully completed installations, a random sample were selected for quality assessment checks by a RICS surveyor. This checked installations for both value for money, accuracy against quoted works and standards of installation.

5. Achievements and Milestones

Green Jump Surrey awarded over £6m of grant funding to support almost 600 low-income households across Surrey, resulting in 775 installations in total. On average it is expected that householders will save approximately £660 per year in energy costs (this figure considers the

market prices as of April 2022[5]). The number and type of measures installed per LA can be seen below:

	Elmbridge	Epsom & Ewell	Guildford	Mole Valley	Reigate & Banstead	Spelthorne	Surrey Heath	Tandridge	Waverley	Woking
External Wall Insulation	5	8	10	2	8	22	7	7	5	11
Park Home Insulation	1	0	17	103	55	19	43	50	5	28
Air Source Heat Pump	0	2	2	3	4	0	1	1	4	5
Loft Insulation	13	11	9	11	19	17	12	6	20	23
Cavity Wall Insulation	3	0	3	6	10	5	9	4	7	11
Solar Hot Water	2	2	2	1	3	2	5	1	0	5
Underfloor Insulation	2	2	2	2	6	3	3	1	4	3
LED Lighting	2	1	0	0	1	1	2	1	0	0
Solar PV	5	6	5	4	16	5	11	10	8	19
Total	**33**	**32**	**50**	**132**	**122**	**74**	**93**	**81**	**53**	**105**

Table 1: Measure mix across both phases of Green Jump Surrey by LA

The mix of measures installed is presented graphically in Figure 2, and the average effect of these measures is shown in Table 2.

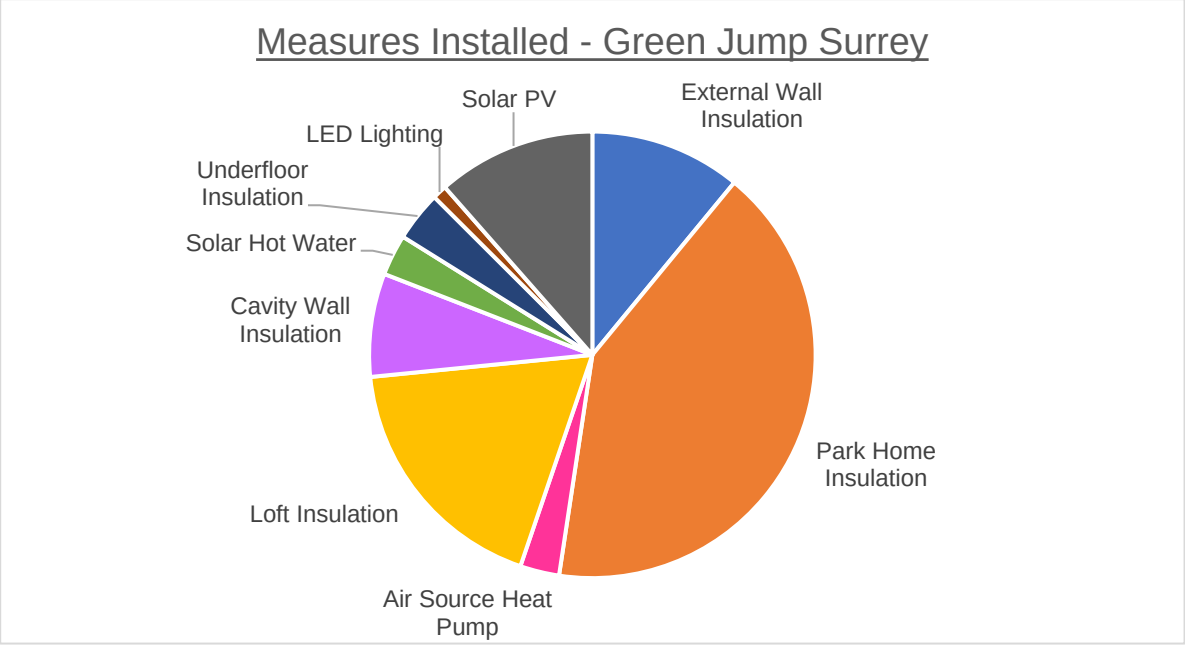

Figure 2: Measure mix across both phases of Green Jump Surrey

[5] Ofgem Energy Price Cap Publication: https://www.ofgem.gov.uk/publications/price-cap-increase-ps693-april

Home energy efficiency improvement	Quantity installed	Average reduction in annual energy costs (in £, April 2022 values)	Average reduction in annual energy usage	Average reduction in annual greenhouse gas emissions (in kg CO2e)
External Wall Insulation	85	£525	6,000	1,400
Park Home Insulation	321	£440	5,000	1,150
Air Source Heat Pump	22	£260	1,500	2,500
Loft Insulation	141	£260	3,000	700
Cavity Wall Insulation	58	£390	4,400	1,000
Solar Hot Water	23	£280	3,200	700
Underfloor Insulation	28	£300	3,400	800
LED Lighting	8	£510	1,700	425
Solar PV	89	£1,380	4,600	1,150
Total	**775**	**£392,000**	**3,418,000**	**844,100**

Table 2: Quantity and impact of each energy efficiency measure installed through Green Jump Surrey.

The results of the energy efficiency improvements in the upgraded properties are also evident in the change to the EPC rating between pre-and-post installation. These are indicated below:

Post-EPC Band	Phase 1A	Phase 1B	Totals
A	0	4	4
B	4	19	23
C	93	96	189
D	125	103	228
E	66	42	108
F	23	8	31
G	1	3	4

Table 3: Post-EPC ratings achieved through Green Jump Surrey

6. Challenges

The biggest challenges faced throughout the course of the project were controlled by external influences, such as Covid-19 lockdowns, as well as poor weather during several months adding further delays to weather-dependent installations such as external wall and park home installations.

Less predictable challenges included the precise impacts of Brexit affecting the supply chain and availability of materials and renewable technologies. Suppliers of heat pumps are already limited across the UK and difficulty obtaining parts from abroad made this more challenging. EPS boards for external wall insulation and park home insulation were also affected with long manufacturer lead times and additional storage costs to installers placing larger bulk orders to mitigate the impact of such delays.

Somewhat linked to Brexit is the challenge of inflation, as a result of immense pressure from rising costs of labour, materials, scaffolding and transportation, as well as carbon taxes and import taxes. This was particularly significant throughout Phase 1B of Green Jump Surrey. Where these costs were passed onto the installer, Action Surrey required the installers to indicate where the price rises had occurred, in order to validate these increases in costs and maintain mitigation against the risk of installers over-inflating costs. It appears highly likely that continued pressure on material availability, coupled with rising costs of raw materials, energy and labour will result in continued inflation under future projects.

Technical challenges also presented themselves in many forms. It became apparent that retrofitting air source heat pumps was more complex where the condition of existing distribution pipework is poor and/or unknown. Since most heating pipework is hidden below finished floors or concealed in service voids, the limiting effect of poor existing pipework cannot be identified until the installation is nearing completion. There were also several cases of houses being in poor condition more generally, affecting the viability of external wall insulation or solar panels being affixed to the roof. Future projects will ensure that the most common property defects are evaluated in greater detail prior to installation to reduce the occurrences where either the installer or Action Surrey must cancel an installation later in the process. This enables funds to be reallocated to other applicants with viable installations sooner, which is critical in the short project delivery timescales. Occasionally the extent to which remedial/enabling works were required meant that the overall costs of works exceeded the funding permitted for the household.

The transition to the new PAS2035:2019 accreditation standard in October 2021 presented some challenges to delivery, though did not result in as many delays as first envisaged. The most notable challenges included the mandatory inclusion of ventilation in many cases where insulation was to be installed. This resulted in some price increases but also put off some residents from having the installations altogether. It occasionally prevented installations proceeding due to the additional costs of meeting the new standards, especially park homes where the entire roof would require extending, and full fascia and gutter replacements.

Where such challenges arose, managing customer expectations could become a challenge in itself. Maintaining clear communication between Action Surrey, the installer and the customer enabled this to be effectively managed. This was particularly relevant where customers may have had concerns over workmanship/customer service from the installers. Having a clear process in place for these instances is vital to ensure all parties are able to respond accordingly, and processes are followed in the correct order to resolve issues.

Despite the challenges, the latest government data release (from 19th May) shows the Surrey consortium achieving third place nationally for both ‘number of measures installed’ and ‘number of households upgraded’ throughout the project.

7. Lessons Learnt

The Green Jump Surrey project provided valuable lessons for future delivery of similar projects.

- **Resourcing**: Expanding the Action Surrey team of advisors to assist with the influx of inbound enquiries, calls and emails that are inevitable following a marketing drive has been invaluable to enable the project to run smoothly and efficiently. Overlaps of information can arise where installers receive information from several colleagues, but to try to manage all comms with installers through one team member is not feasible. Future projects would benefit from a full resource review to ensure capacity. A challenge between project phases and reacting to short-notice project extensions is team member retention, since all resources are externally funded there is a limit to the duration in which staff can be contracted.

- **Marketing**: Effective marketing should target audiences that are likely to benefit most from the scheme (i.e. those in fuel-poor areas, low EPC-rated areas, vulnerable and elderly residents) and both digital and printed forms enable this to be most effective. Increased usage of the Local Authority channels available could help distribute messaging to the correct audiences and engagement with the LAs should be sought early to enable this to occur alongside other marketing drives.

- **Application process**: This must be as simple as possible to gather all the information from residents in a timely manner. It must be carried out consistently with GDPR and confidentiality where required, as personal data is collected on a large scale. In order to be accessible to all audiences, non-digital format (e.g. postal packs) need to be available, but these are often a much slower process and if not all information is returned in the first instance, this can delay the application further. Applying deadlines to this process in the future could help translate the urgency to customers to help speed up the application process, but it also creates the risk of cancelling residents too early in the process.

- **Energy Performance Certificates**: Presently, EPCs are the most universally used measurement for energy efficiency ratings in domestic dwellings[6]. EPC D-rating is the average rating for the housing stock of the UK, and has been evidenced by the number of applicants with such a rating applying for funding. When D-rated pre-EPCs could later be included under Phase 1B, a cap of 70% applied, meaning some residents still lost out on funding, despite being financially eligible. With future EPC D-rated caps on delivery expected under further grant phases, challenges and delays are likely to arise where demand far outweighs the delivery permitted under the grant conditions. This can be somewhat mitigated by effective marketing, and prioritising a 'worst-first' approach to progress the lower EPC bands earlier on in the project.

- **Enabling works**: It became clear as the project progressed the types of different enabling works that can be required prior to installation. This was particularly relevant to external wall insulation and park home insulation. This knowledge can now inform this type of budget in further projects to better understand the additional costs required to complete these types of installations, and identify where these costs may have increased due to external factors aforementioned (e.g. inflation).

- **Installer Network**: Onboarding a network of trusted and accredited installers is mandatory as per the grant. Obtaining a specific point of contact within the organisations is important to ensure clear and efficient communication throughout the

[6] https://www.gov.uk/government/publications/apply-for-the-sustainable-warmth-competition/sustainable-warmth-competition-questions-and-answers

duration of the project. The installer agreement is an integral part of the onboarding process to ensure that installers are obligated to abide by the grant conditions (e.g. insurance level and accreditations), and also outlines the expectations of all parties. Identifying potential new installers can be a time-consuming process and is not always successful, but bolstering the network with several installers that offer each measure provides back-up capacity where required.

- **Supply chain challenges**: Some delays can be traced back to issues further down the supply chain, such as political influences (e.g. Brexit causing shortages of materials, resources and labour from abroad). Additionally, funding schemes inevitably place additional pressure on the overall supply chain nationally and will continue to do so as further funding is released.

- **Identifying risks** before and during the project is important. Some risks are unpredictable and outside of control, but many can be mitigated in advance to reduce the impact on the project. For Green Jump Surrey, risks included delays from Covid-19 lockdowns, weather, volume of works vs installer capacity and the supply chain challenges identified above. Future phases of funding are unlikely to be as affected by Covid-19, but other risks still apply, and additional risks of inflation and pressure on the energy market will come to the fore.

- **Planning and Adaptability**: As above when identifying risks, it is important to consider the points within the project where adaptability may be required. Monthly reporting enables a plan to be devised for the following month, however there can be several factors that affect the projected delivery (e.g. Delays to TrustMark lodgements being authorised, change request processes, external factors affecting supply chains, internal resource changes). Therefore it is important to identify contingencies where possible.

8. Finances

A full breakdown of spend per Local Authority is presented in Table 4 below:

Total spend per LA			
	Phase 1A	**Phase 1B**	**Total**
Elmbridge	£75,949.05	£72,993.10	**£148,942.15**
Epsom & Ewell	£28,094.24	£147,817.97	**£175,912.21**
Guildford	£229,953.87	£199,142.55	**£429,096.42**
Mole Valley	£588,257.42	£695,684.89	**£1,283,942.31**
Reigate & Banstead	£505,879.89	£391,630.45	**£897,510.34**
Spelthorne	£360,360.44	£214,711.61	**£575,072.05**
Surrey Heath	£476,328.70	£320,878.40	**£797,207.10**
Tandridge	£213,437.94	£564,375.53	**£777,813.47**
Waverley	£54,285.53	£195,775.50	**£250,061.03**
Woking	£434,282.40	£314,256.28	**£748,538.68**
Total	**£2,966,829.48**	**£3,117,266.28**	**£6,084,095.76**

Table 4: Breakdown of spend on installations only (excluding VAT) by Local Authority

Half of total funds were spent in Phase 1A, due to the circumstances and challenges explained in Section 6. The start of the project was slowed significantly by the recurrent Covid-19 lockdowns, which prevented pre-EPCs and home surveys. Even when restrictions were lifted, the most vulnerable residents were still understandably apprehensive about having contractors enter the property. This meant installations did not begin until November, which was closely followed by a period of cold and wet weather, hindering the progress of external wall insulation and park home insulation through to mid-February. The latter part of the delivery timescale coincided with the peak of supply chain issues (delays to materials, pressure on labour and resources), experienced across the entire construction industry in 2021-22.

The savings achieved across the project, expressed as total savings and savings per household, both annually and across the lifetime of the measures can be seen below. The effect of additional top-up funding from Surrey County Council is also evidenced:

	Total	Per household	Total	Per Household
	Annual		Lifetime	
Number of homes receiving funding	594			
Total funds spent	£6,083,796	£10,242	n/a	
Total greenhouse gas emission savings (tCO2e)	844.1	1.4	26,010	43.8
Total fuel bill savings (£)	£392,000	£660	£11,509,000	£19,375
Total energy savings (kWh)	3,418,000	5,754	95,710,000	161,128
Number of homes receiving SCC top-up funding	201			
SCC Top-up funds spent	£372,035	£1,851	n/a	
Greenhouse gas emission savings (tCO2e)	260	1.3	9,302	46.3
Fuel bill savings (£)	£102,580	£510	£3,604,800	£17,900
Energy savings (kWh)	992,200	4,936	37,532,000	186,000

Table 5: Breakdown of funds spent and associated savings achieved, based on assumptions of 40 year lifetime for insulation and 20 year lifetime for renewables.

The average bill saving of £660 reflects 95% of the energy price rise applied by Ofgem in April 2022, or one third of the new annual bill. The annual energy savings (kWh) is the equivalent of the energy used by 284 average homes for heating and hot water.

Over the lifetime of the installations, bill savings will return roughly double the value of the installations, without accounting for further price increases, inflation and increased property values over this period.

9. Conclusion

Overall, Action Surrey's largest and highest value project ever delivered, Green Jump Surrey, can be considered a major success. The project created lasting, significant reductions in energy consumption and carbon emissions across almost 600 domestic properties in Surrey. The Whilst the increase in energy bill price caps makes energy bill savings uncertain, the installation of insulation and renewable measures within properties will no doubt mitigate the impact of this increase on the homeowners who have benefited from this scheme.

The rise in energy price caps is likely to be a significant driver of further enquiries and applications from residents for future funding schemes, as is the ever-growing concern for the climate as people become more 'self-conscious' about their emissions and how they can 'do their bit' for the environment.

While the achievements of the project are undoubted, the upgrading of homes across the county to EPC D and above leaves potentially fewer homes likely to be eligible for funding under future schemes where financial eligibility criteria is similar, and especially as restrictions on D-rated properties are likely to remain. Marketing targeted at the least efficient and off-gas grid properties can help mitigate this to some extent, though oversubscription of demand for funding will always outstrip the deliverables of the project. This is due to several factors, but largely as a result of time restraints, supply chain issues identified earlier in the report, and the high proportion of EPC D-rated homes in Surrey.

Future projects must take into consideration the challenges and lessons learnt from Green Jump Surrey, in order to ensure effective management of government funding, and achieve successful results. Particularly relevant are the new PAS2035:2019 standards that will apply to all installations under future phases, to include ventilation requirements and a whole-house, fabric-first approach.

10. Testimonials

Many residents provided positive and constructive feedback regarding the project, relating to customer service by Action Surrey and installers, quality of installations and the application process. A few anonymised responses from each Local Authority are provided below:

Elmbridge – KT12 1LA – Loft Insulation

EPC D58 to C73

"I am very pleased to say that the installer was on time, kept in good contact and found me easily (something that appears hard for a lot of delivery/work people). On top of all of this, he brought his own ladder, was polite and made a great job of implementing the insulation. On 23/11/21 a follow-up inspection was carried out. This inspector was also very nice, polite, respectful and also brought her own ladder. I am extremely happy with all services I have received and thank everyone involved for making the process easy and stress-free."

Epsom & Ewell – KT17 2EB – Loft Insulation, External Solid Wall Insulation, Solar PV Panels

EPC D59 to B82

"I thought the scheme was great. Process easy once I got to know the website. Companies I dealt with were great… Solar panels were an afterthought but being offered free I thought I won't lose anything. For the month after installation I generated the same amount of electricity than I used. Although I didn't actually use it all from the panels, I felt happy that it went back to the grid. We all need to do a bit towards a greener world."

Guildford – GU12 5PX – Loft Insulation and Cavity Wall Insulation

EPC D60 to C72

"Everyone concerned was so very helpful at every stage from office staff to contractors office staff to the actual workmen. Everything was tidied away after work was done, with their own equipment… I am grateful for this chance to do more to help combat global warming."

Mole Valley – KT22 8TW – Loft Insulation, Solar PV Panels

EPC D68 to B82

"Action Surrey has provided us with a green grant that improved our EPC rating from D to B. We had 12 Solar panels that generates 949kwh per annum. It has brought down our energy bills down and feeds the National Grid excess energy. Loft insulation has improved the temperature inside the house. Also, during the survey it was discovered that our cavity walls are also insulated. All who work at Action Surrey have been helpful, courteous and professional… compassionate and understanding on issues we faced."

Reigate & Banstead – RH6 8EQ – Loft Insulation, Cavity Wall Insulation, Solar Thermal.

EPC E52 to C71

"The Green Jump Surrey funding process was well informed and very clear. The interaction with Action Surrey customer service operatives was excellent and very helpful. The installations of the work undertaken by the recommended providers/installers was very good and the benefits of the measures as assessed has raised the energy efficiency rating of my property. Overall, I am very pleased with the whole process and the help given to me."

Spelthorne – TW15 1EX – External Solid Wall Insulation

EPC E54 to C74

"I found the process of applying quite straight forward, I received help and support from the team which I found very helpful.
It was quite a long process but the team kept me informed.

When the installers arrived on site, they were friendly and informed me of how the process would be carried out."

Surrey Heath – GU16 8JU – External Solid Wall Insulation

EPC D57 to C72

*"*Thank you very much for the excellent service provided by Action Surrey. We look forward to a much warmer and drier house in the future. We are very pleased with the work done."

Tandridge – RH9 8JR – External Solid Wall Insulation, Air Source Heat Pump

EPC F36 to C73

"Very good fitters, excellent service, very pleased with the end result"

Woking – KT14 7EY – Loft Insulation

EPC D63 to C69

"I've just had the loft insulation installed in my house, and I would like to thank you for everything you have done. I found the application process very straightforward, with support from your advisors… very helpful and patient. I was very impressed how everything was arranged and organised. It was a very professional process. Thanks again."

Waverley – GU8 5DF – Underfloor Insulation

EPC D65 to D66

"Regarding the Green Jump Surrey Funding Programme, we were lucky enough to hear about this and what it was offering, we would just like to say that we are very pleased with what we have had done, our feet are a lot warmer! Also to the contractors who were very efficient and explained things very clearly at each process and they left things very neat and tidy, we would definitely recommend them."

Further in-depth case studies can be found on the ThamesWey website:

- A customer experience - Trevor's external wall insulation: https://www.thamesweygroup.co.uk/case-study/green-jump-case-study-1/
- How 3 residents have benefitted - Mr Zaman, Mr Halimic and Mr Franzoni: https://www.thamesweygroup.co.uk/case-study/green-jump-case-study-2/