

PROPOSAL: EAST STREET MARKET SOLAR PROJECT

Lead Partner: East Street Community CIC

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In partnership with: Southwark Council, local housing teams, Repowering London, UKPN

Proposed Funding: £500,000–£650,000

Delivery Timeline: Q4 2025 – Q2 2027



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1. CONTEXT AND KEY HEADLINES

East Street Market is one of London’s most community-rooted markets. Many traders face unsustainable energy costs and long-term vulnerability to rising utility prices. This solar initiative supports Southwark’s Net Zero goals and the **East Street Shopping District** regeneration strategy.

The project proposes to install 220 solar panels on adjacent council housing blocks, reducing carbon emissions by approximately 40 tonnes of CO₂ annually while supplying low-cost, renewable energy to over 100 market traders and shop units. This infrastructure provides energy resilience, economic benefits, and a platform for climate-conscious public engagement.



Importantly, local traders will play an active role in shaping and managing this sustainable energy solution. Through participation in **local energy clubs** and a **cooperative governance model**, traders can vote on and set their local energy supply tariffs, giving them direct control over pricing structures. Additionally, they will have a say in determining the scale and impact of any community benefit fund generated by the initiative. This approach offers a rare example of a project that not only enhances long-term energy security and builds local economic resilience but also returns meaningful agency to local businesses and the wider community.

Solar Roof Area by Location

Array Location	Roof Area (m ²)
South East Facing	605 m ²
North West Facing	493 m ²
Flat Roofs (Young Entrepreneurs Hub)	311 m ²
Total Combined Area	1,409 m ²

The expanded East Street solar system—including South East, Northwest, and flat roof arrays—is projected to generate approximately **235,180 kWh per year**. Based on current energy pricing models, this could deliver **annual savings of £18,000 to £52,000** for local market traders and shop tenants through a shared supply or credit system.

The total capital cost for the East Street Market solar project is estimated at **£560,000**. This includes all stages from feasibility and design through to installation of **220 solar panels, 756 kWh of battery storage**, and the delivery of a **public-facing energy dashboard**. The investment underpins a fully

integrated, community-owned energy system designed to reduce carbon emissions, cut costs for local traders, and support long-term sustainability in the heart of the East Street Shopping District.

Depending on the final system design and grid connectivity, the East Street Solar Project has the potential to benefit up to 77 shop units stretching from Walworth Road to Brandon Street and Portland Street. These businesses could see average energy cost savings of £800 to £1,500 per year, or roughly £70 to £130 per month. This would cover an estimated 40% to 70% of each shop's annual electricity demand, offering a significant reduction in overheads while protecting traders from the volatility of rising energy prices.

In addition, 194 market stall pitches stand to gain substantially from this initiative, particularly those with semi-permanent or regular operating setups. The final distribution of benefits will be guided by detailed feasibility studies and metering assessments.

2. PROJECT PHASES AND TIMELINE

Stage	Timeline	Phase Description	Lead Responsibility	Expected Outputs
1	Months 1–3	Feasibility Study – Structural and electrical surveys, roof load analysis, and DNO (grid) application	Appointed Architect + Technical Consultant, coordinated by Project Manager (PM)	Verified site suitability, load calculations, DNO application submitted
2	Months 4–6	Planning & Engineering – RIBA Stage 2–3 design, system layout, battery sizing, and planning submissions	Architect + Solar Engineer, overseen by PM and East Street Community CIC	Finalised technical design, planning approved, procurement brief drafted
3	Months 7–9	Procurement & Coordination – Installer selection, legal contracting, delivery scheduling	Project Manager + East Street Community CIC Board	Signed installer contract, risk and delivery plan agreed, supply chain confirmed
4	Months 10–13	Installation – Solar panels and community battery system installed, commissioned, and tested	Approved Installer + PM + Technical QA Support	220 solar panels and 756 kWh battery commissioned, compliance sign-off
5	Months 14–18	Transition & Training – Launch of Community Energy Dashboard, workshops for traders, schools, and Energy Club setup	East Street Community CIC + Education/Engagement Partners + Repowering London	Dashboard live, Energy Local Club initiated, 3–5 workshops delivered, interns placed

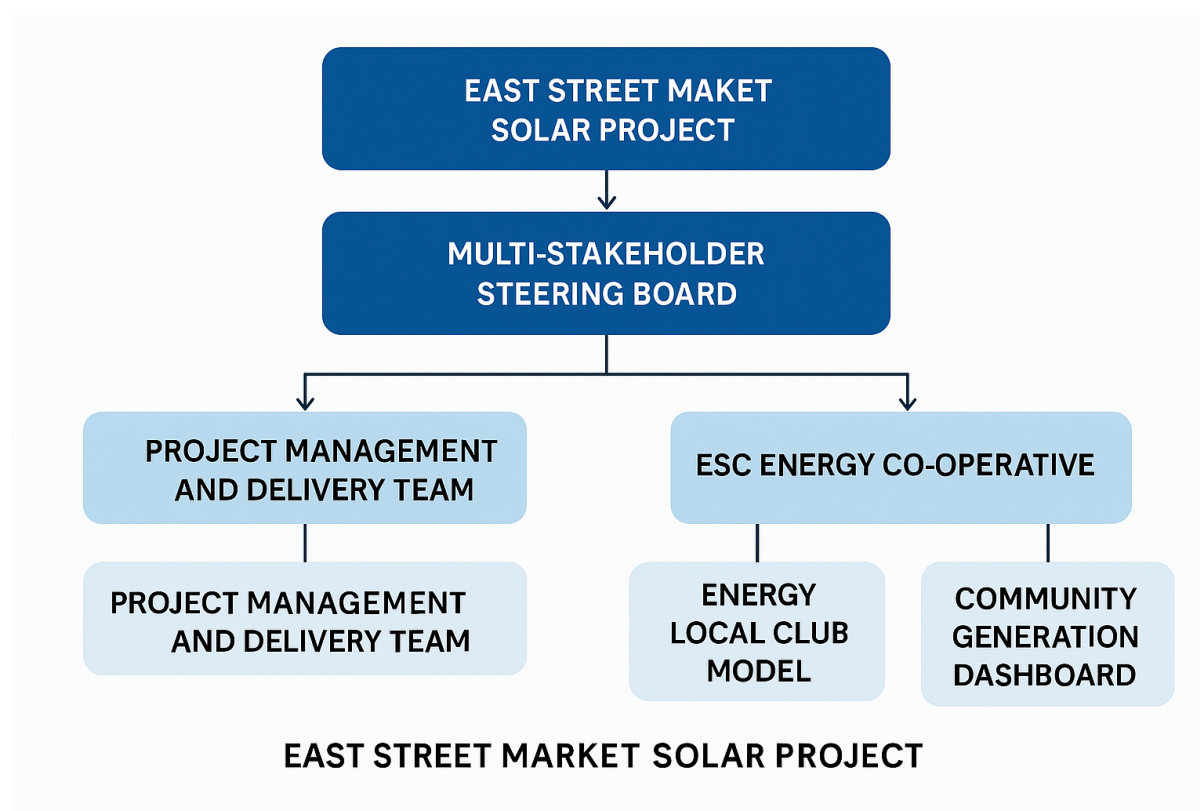
3. GOVERNANCE AND DELIVERY

The East Street Market Solar Project will be governed and delivered through a hybrid model that ensures community ownership, transparent benefit-sharing, and technical competence. The structure combines operational delivery by East Street Community CIC with cooperative energy governance via an Energy Local Club model.

A multi-stakeholder Steering Board will be formed to oversee delivery and transition to community ownership. Members will include:

- East Street Community CIC Board representatives and sub-contracted project managers
- Trader and shop owners' delegates
- Local residents and youth (via open call)
- Technical partners (e.g. Repowering London, South East London Community Energy, Southwark Community Energy Fund – advisory)
- Southwark Council officers (non-voting advisory role)

The Board will guide procurement, oversee delivery milestones, and approve operational frameworks, including tariff setting and public communications.



LEAD ORGANISATION: EAST STREET COMMUNITY CIC

East Street Community CIC will serve as the accountable lead for the development and implementation of the solar project. The CIC brings a strong track record in local regeneration, infrastructure delivery, and culturally relevant community engagement. Responsibilities will include:

- Managing funding, compliance, and **procurement**
- Overseeing design, permissions, and installation phases

- Coordinating **public engagement**, training, and reporting
- Establishing long-term governance and reinvestment pathways
- Setting up a dedicated energy cooperative to administer the **Energy Local Club model**, enabling shared solar access, local energy crediting, and transparent benefit distribution to market users

PROJECT MANAGEMENT AND DELIVERY TEAM

A dedicated **Project Manager** will be appointed to coordinate between:

- Technical consultants and solar installation contractors
- Southwark Council housing and property teams
- The local Distribution Network Operator (DNO)
- Community stakeholders and the steering Board

This role includes maintaining timeline compliance, contractor performance, and quality assurance through all phases.

ENERGY LOCAL CLUB MODEL (VIA AN ESC ENERGY CO-OPERATIVE)

Post-installation, the governance of the solar infrastructure will transition to a cooperative model inspired by **Energy Local Clubs (ELCs)**. This will enable local energy users—traders, shop units, and potentially residents—to directly benefit from the electricity generated, either through:

- Direct supply models via smart metering and demand balancing
- Credit or tariff-offset systems using tracked consumption patterns
- Transparent decision-making on pricing and surplus reinvestment

The ELC will be either integrated into the CIC's governance or established as a separate legal cooperative entity with representation from all key user groups.

Once operational, the solar system will be managed by the Energy Co-op (overseen or supported by East Street Community CIC. Its responsibilities include:

- Contracting and overseeing annual maintenance and insurance
- Managing income and credit distribution to local users
- Monitoring performance and publishing quarterly dashboards
- Deciding on reinvestment priorities (e.g. expanding storage, funding local projects)

A reserve fund will be maintained to ensure long-term operational resilience.

COMMUNITY ENERGY DASHBOARD

A real-time **Community Generation Dashboard** will be installed as part of the infrastructure, providing:

- Live generation and consumption data
- Visibility into carbon savings and energy flow
- Public-facing transparency on who benefits and how
- Educational tools for schools, youth groups, and market users

The dashboard will be accessible via a physical display (e.g. in the Entrepreneurs Hub common room) and through a web-based interface. It will be maintained by the CIC or Energy Club operator and used for quarterly reporting and public engagement.

4. CASE STUDIES AND PRECEDENTS

This project draws on established models of community-led solar energy delivery from across the UK. The examples below demonstrate how targeted local investment, particularly when paired with inclusive governance and asset retention, can achieve measurable social, environmental, and economic returns.

ENERGISE BARNSELEY – SOCIAL HOUSING SOLAR AND BATTERY PROGRAMME

- **Scope:** 370 homes with rooftop solar panels; 143 homes also received battery storage
- **Impact:** Average household saving of £500/year, totalling £185,000 annually
- **Governance:** Local authority-led in partnership with housing providers; no upfront costs to tenants
- **Outcome:** Project now entering its third phase, aiming to reach 1,000 homes
- **Relevance:** Shows how local authorities can deliver lasting reductions in energy costs and carbon emissions through simple, scalable models accessible to low-income communities

ENERGY LOCAL CLUB – ROUPELL PARK, BRIXTON

- **Scope:** 50 kWp solar system installed across four rooftops
- **Partner:** Repowering London, supported the setup of Brixton Energy Solar 3 and Energy Local integration
- **Funding:** £67,000 raised through community share offers
- **Impact:** Annual generation of ~45,000 kWh; estimated CO₂ savings of 20 tonnes over 20 years
- **Governance:** Four local residents initially appointed as Directors; project supports youth internships
- **Technology:** Energy Club members access a digital dashboard to optimise energy use and monitor system performance
- **Relevance:** Offers a direct model for East Street's Energy Local Club structure—combining co-ownership, training, and data transparency

SHOREHAM PORT – BHESCO

- **Scope:** 499 kWp solar array on commercial port buildings
- **Capital Cost:** £532,000 (fully funded through community share offers)
- **Annual Savings:** £8,700 (focused on CO₂ savings, not cost reductions)
- **Governance:** Owned and managed by Brighton & Hove Energy Services Cooperative (BHESCO)
- **Relevance:** Demonstrates large-scale, community-funded solar deployment with long-term environmental goals and tenant energy benefits

SE24 COMMUNITY ENERGY – SOUTH EAST LONDON

- **Location:** Based near Dulwich; focuses on community asset development

- **Portfolio:** Mid-scale solar on schools, churches, and civic buildings
- **Governance:** Cooperative structure; engages local investors and reinvests surplus
- **Limitations:** Current focus is on more affluent communities, not directly reflective of East Street Market’s demographic
- **Relevance:** Highlights the opportunity and necessity for a more inclusive, culturally grounded community energy group centred around East Street—delivering similar infrastructure with more representative leadership, programming, and local economic return

LEARNING FOR EAST STREET COMMUNITY CIC

These case studies underline the opportunity for East Street to establish a **locally governed, community-owned energy infrastructure** that:

- Builds **long-term wealth** in working-class and ethnically diverse communities
- Provides **career development and training pathways**
- Operates with **technical credibility and financial transparency**
- Is underpinned by visible, permanent infrastructure managed by the people who use it

This approach reflects not only best practice but **equity-driven innovation**, delivering public good and community power in equal measure.

5. CAPITAL COSTS BUDGET OVERVIEW

Budget Line	Estimated Cost	Description
Structural & Electrical Feasibility	£25,000	Roof condition survey, structural loading, electrical compatibility assessment
Planning, Design & Engineering	£30,000	RIBA Stages 2–3, system layout, DNO applications, planning permissions
Solar Equipment & Installation (224.8 kWp)	£286,620	Panels, inverters, monitoring systems, wiring, scaffolding (at £1,275/kW)
Community Battery Installation (755.1 kWh)	£188,775	Storage unit, installation, control systems, commissioning (at £250/kWh)
Training & Community Energy Dashboard	£15,000	Public digital dashboard, workshops, signage, and educational materials

Budget Line	Estimated Cost	Description
Total Estimated Budget	£545,395	Inclusive of all capital and programme costs to commissioning

6. BUSINESS CASE FOR OPERATIONS AND SUSTAINABILITY

The East Street Market Solar Project proposes the installation of **220** of rooftop solar panels and a **756 kWh** community battery across council-owned buildings adjacent to East Street Market in Southwark. Designed and led by **East Street Community CIC**, the project will deliver clean, affordable energy to over **120 market traders and shop owners**, while supporting Southwark's Net Zero and economic equity goals.

KEY BENEFITS

- **Annual Energy Generation:** 179,500 kWh
- **Carbon Savings:** ~40 tonnes CO₂ per year
- **Trader Cost Savings:** £18,000–£52,000/year through shared supply and credits
- **Local Energy Consumption Met:** ~15% of total estimated demand
- **Public Engagement:** Digital dashboard, youth workshops, and trader training
- **Governance Model:** Community Interest Company (CIC) or Energy Local Club

SYSTEM OVERVIEW

- **Solar Panels:** 562 (LG 400W Mono), 20.3% efficiency
- **Arrays:** South East (124 kWp) and North West (100.8 kWp)
- **Battery Storage:** 755.1 kWh – enables energy use optimisation across time-of-day/week
- **Ongoing Costs:** £5,000–£7,000/year (operations, maintenance, and monitoring)

CAPITAL COSTS

- **Solar Equipment & Installation:** £286,620
- **Battery Installation:** £188,775
- **Design, Feasibility & Community Engagement:** £70,000
- **Total Estimated Budget:** £545,395

STRATEGIC RELEVANCE

This project builds on best practice from **Repowering London**, **Energise Barnsley**, and local co-ops such as **SE24 Community Energy**, using a proven governance and delivery model to embed long-term environmental, social, and economic value in a historically under-resourced area. The model is scalable and can serve as a template for replication across other Southwark estates and markets.

7. PARTNERSHIPS AND PUBLIC ACTIVATION

The success of the East Street Market Solar Project relies not only on infrastructure delivery but also on strategic collaboration and community activation. This initiative brings together experienced partners from the renewable energy, education, and civic engagement sectors to ensure the long-term value of the system is felt across environmental, social, and economic dimensions.

- **Repowering London:** As a recognised leader in community energy delivery, Repowering London will support the East Street team in designing and implementing a cooperative governance model. Their expertise will inform the development of an Energy Local Club, enabling transparent benefit-sharing, youth internship opportunities, and long-term maintenance protocols rooted in community training.
- **UK Power Networks (UKPN):** UKPN will serve as the technical liaison for all grid-connection matters. This includes Distribution Network Operator (DNO) applications, load balancing, and coordination of energy export permissions. Their input ensures the system integrates efficiently and compliantly with the borough's wider electrical infrastructure.
- **GLA Zero Carbon Accelerator:** Through its technical mentoring and potential funding streams, the Greater London Authority's Zero Carbon Accelerator will provide benchmarking, best-practice guidance, and high-level visibility to the project. This partnership situates East Street within a broader cohort of Net Zero pilot sites across the capital.
- **South East London Community Energy (SELCE) and Southwark Community Energy Fund**
These partners provide local context and borough alignment. SELCE offers practical insights into energy education and retrofit programming, while the Southwark Community Energy Fund may support delivery-phase financing, helping to embed the scheme in local policy ambitions.
- **Local Schools and Youth Networks**
Engagement with local education providers and youth organisations will ensure the solar infrastructure becomes a tool for lifelong learning and opportunity. Programming will include workshops, curriculum-linked activities, and paid internship pathways into the green economy.

8. FUTURE AND ALIGNED DELIVERY WORKS

The East Street Market Solar Project is not a standalone intervention—it is embedded within a wider, community-led regeneration strategy that is reshaping East Street into a sustainable, inclusive, and economically vibrant Shopping District. The installation of rooftop solar and battery storage directly supports several interlinked modules of the East Street Community CIC's master plan, as outlined in recent council submissions and community consultations.

ALIGNMENT WITH THE EAST STREET SHOPPING DISTRICT VISION

The solar project aligns with key priorities in the **Shopping District 2025–2030 concept**, including:

- **Sustainability & Energy Resilience:** As Southwark's first solar-powered market, the system reduces energy costs for traders, improves refrigeration capacity, and ensures lighting during extended trading hours, supporting both environmental targets and night-time economy development.
- **Infrastructure for Inclusive Growth:** The system powers essential facilities that benefit underrepresented groups, including new female-led enterprises and young traders based in the proposed **Entrepreneurs Hub** in Portland Place.
- **Cleaner, Greener Market Experience:** Paired with a robust **recycling and waste management strategy**, solar-generated power will support refrigeration and chill boxes, thereby reducing food waste and improving environmental conditions for shoppers and traders.

- **Public Realm and Branding Integration:** The project complements improvements to street lighting, signage, and market aesthetics, contributing to a cohesive identity across barrows, murals, and wayfinding infrastructure developed in collaboration with IVY Studios.
- **Smart Technology and Digital Access:** The solar-powered hub also supports the broader digital infrastructure aims of the district, including live dashboards, Wi-Fi access, and e-commerce visibility for traders—key elements already identified in the **Thriving High Streets Fund** implementation work.

Project management for the solar system will be delivered in tandem with aligned capital works, including the Entrepreneurs Hub, wayfinding, and barrow improvements. The CIC's governance model ensures:

- Coordinated timelines for construction and activation
- Shared feasibility studies and planning inputs across modules
- Community-led prioritisation of delivery phases

Each component reinforces the others—solar energy powers facilities that make the market safer, cleaner, and more functional; shared governance structures increase transparency and local control; and improved public spaces attract footfall, customers, and further investment.

9, SHOP OWNERS' BENEFIT CALCULATION

Based on a manual count using **Google Street View and business listings**, the number of active shop units along East Street is estimated at **77 and 120 of 194 pitches**. On average, each shop pays **£200/month** in electricity bills. At a rate of **27.03p/kWh** and a daily standing charge of **53.8p**, this equates to approximately **8,160 kWh/year** in energy use per shop (excluding standing charges).

The East Street Solar Project is expected to generate **235,180 kWh annually**. If distributed evenly across the 77 shops, this would offset around **3,053 kWh/year per shop**, covering approximately **37%** of their annual energy demand.

- **Annual savings per shop: ~£826/year**
- **Monthly savings per shop: ~£69/month**
- **3,053 kWh/year offset**
- **~37% of electricity use covered**

Disclaimer:

These figures are based on internal estimates and energy usage assumptions derived from publicly available data and our survey sample. Final outputs, savings, and distribution will be refined through a full feasibility study and site-specific technical analysis.

The number of shops and pitches that can be directly connected to and benefit from the solar system will depend on technical constraints such as metering configurations, grid capacity, building layouts, and Distribution Network Operator (DNO) requirements. These aspects will be clarified during the detailed design and procurement stages of the project.

TARGETED SOLAR ALLOCATION MODEL: 40 SHOP UNITS

Assuming that only the shop units located directly beneath or adjacent to the rooftops where solar panels are installed can benefit, pending confirmation through detailed feasibility and metering assessments, up to **40 shops** may be eligible for direct participation in the solar project.

Under this scenario, each of the 40 shops would receive approximately **5,880 kWh per year**, covering around **72% of their typical annual electricity demand** (based on average usage of 8,160 kWh/year). This translates to an estimated cost saving of **£1,588 per year**, or approximately **£132 per month** per shop.

This targeted approach ensures maximum impact for connected units while establishing a scalable model for future energy distribution as infrastructure expands. Final shop-level eligibility and allocation will be determined during the technical design and procurement stages.

10. DELIVERY TEAM PROFILE

Calum Millbank has worked on technical modelling for city-scale decarbonisation masterplans as well as supporting the first steps of grassroots community energy groups. He firmly believes in the power of people to join together and solve challenges and share ideas and resources, and puts as much time and effort as he can towards initiatives like community-led housing and also in organising and supporting to build community resilience.

Recently, Calum has been involved in a range of community energy initiatives across the UK, supporting regional Net Zero Hubs and local authorities. Their work included conducting audits, interviews, and data mapping for regional reports in the South West and North East & Yorkshire, aimed at assessing and advancing community energy ecosystems. They played a key role in securing and launching the CommuniPower LEAD project, coordinating a successful £1M bid and developing a technical programme with expert partners. Additionally, they carried out numerous feasibility studies for renewable energy installations, such as solar PV, wind, and district energy, supporting community energy groups through detailed modelling and analysis using tools like PVSol, AutoCAD, and QGIS

Lindon Rankin, founder of Melanin CIC, a local health and wellbeing centre, has designed and built the solar-powered market barrow featured in the East Street regeneration strategy. These bespoke unit integrates lightweight solar panels and battery storage to power lighting and small appliances, supporting food safety, extended trading, and a cleaner market environment. His work exemplifies how local innovation can embed sustainability at street level and aligns directly with the broader solar infrastructure vision for East Street Market.

Dr Silvie Jacobi is a researcher and practitioner specialising in cultural infrastructure, urban regeneration, and community-led development. With a background in arts and spatial planning, her work bridges design, research, and policy to support inclusive place-making and sustainability. She brings extensive experience in delivering cross-sector projects involving public space, creative reuse of underutilised assets, and participatory governance—skills directly relevant to supporting the integration of renewable energy infrastructure within wider neighbourhood regeneration frameworks.=

11. TECHNICAL SUMMARY: EAST STREET MARKET SOLAR ARRAYS

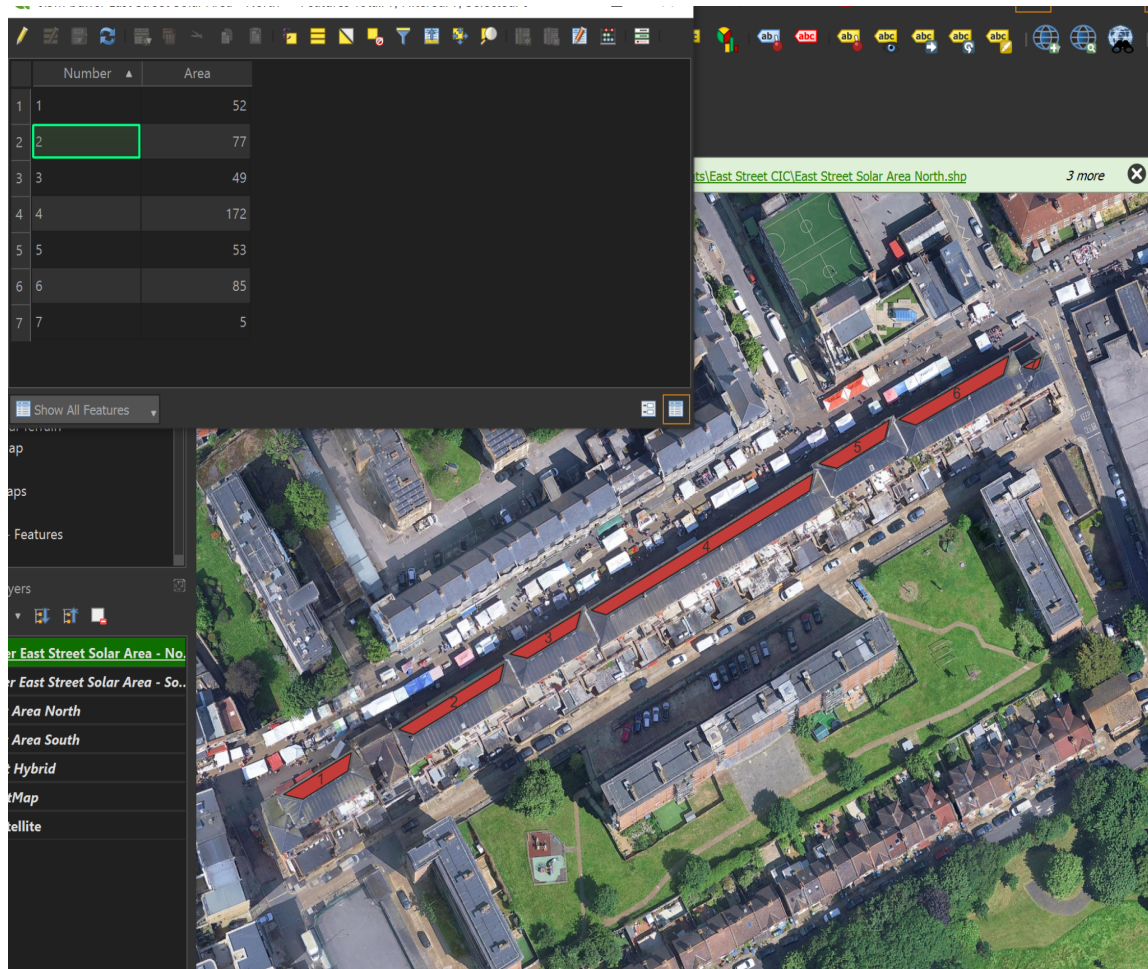
The East Street Market Solar Project proposes a two-array rooftop solar system distributed across council housing blocks adjacent to the market, with a combined installed capacity of **220 panels** and an estimated annual energy yield of **179.47 MWh**. The system will significantly reduce local energy costs and emissions, and can serve over 100 market traders and small business units.

SYSTEM OVERVIEW

Array Location	Roof Area (m ²)	Panels	Installed Capacity (kWp)	Annual Yield (MWh/year)	Install Cost
South East Facing	605	310	124.0	115.32	£158,100
North West Facing	493	252	100.8	64.15	£128,520
Flat Roof	311	159	63.6	55.71 (<i>incl. shading adj.</i>)	TBC
Combined Totals	1,409	721	288.4	235.18	<i>Est. ></i> £286,620

EAST STREET SOLAR ARRAY SUMMARY – NORTH WEST FACING

- **Total Roof Area (NW):** 493 m²
- **Panels Installed (NW):** 252
- **Installed Solar Capacity (Peak):** 100.8 kWp
- **Estimated Annual Generation (Yield):** 64.15 MWh/year
- **Installation Cost (NW array):** £128,520



EAST STREET SOLAR ARRAY SUMMARY – SOUTH EAST FACING

- **Total Roof Area (SE):** 605 m²
- **Panels Installed (SE):** 310
- **Installed Solar Capacity (Peak):** 124.0 kWp
- **Estimated Annual Generation (Yield):** 115.32 MWh/year
- **Installation Cost (SE array):** £158,100



YE HUB SOLAR ARRAY SUMMARY – FLAT ROOF

- **Total Roof Area:** 311 m²
- **Total Solar Panels:** 159
- **Total Installed Capacity (Peak):** 63.6 kWp
- **Estimated Annual Generation (Post-Shading Adjustment):** 55.71 MWh/year

