



Community Energy Development

Feasibility Study Report

Prepared for Teversal, Stanton Hill &
Skegby Neighbourhood Forum

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Executive Summary

This feasibility study was commissioned by the Teversal, Stanton Hill & Skegby Neighbourhood Forum (TSSF), in partnership with Savi Energy, with grant support from the Midlands Net Zero Hub. The purpose was to explore opportunities for a new Community Energy Company (CEC) that would deliver locally owned, renewable energy projects for the direct benefit of the community.

The study considered a wide range of options, from renewable generation sites to efficiency upgrades. Several options were discounted during the process due to constraints such as grid connection, planning considerations or insufficient stakeholder engagement. Two clear opportunities emerged as viable and impactful:

1. **A rooftop solar PV and EV charging project at the Teversal Trails Visitor Centre**
2. **A community “Solar Club” model to provide rooftop solar (and battery storage) to residents on affordable terms**

Together, these projects provide a balance between **quick wins** (anchored at a high-profile community facility) and **longer-term scalability** (extending benefits to local homes).

Teversal Trails Visitor Centre

The Visitor Centre is a vital community facility that currently spends over £600 per month on electricity. It was selected as the anchor site because of its steady daytime energy demand, high visibility, and role as a hub for local residents and visitors.

The feasibility study designed a **12.6 kWp rooftop solar PV system** expected to generate around **10,746 kWh annually**, covering 78% of the Centre's needs. Surplus electricity can be exported to the grid. Alongside this, LED lighting upgrades will reduce annual consumption by almost **4,000 kWh**, while EV charging points will provide both an additional service for visitors and a tangible income stream for the CEC.

A **Power Purchase Agreement (PPA)** will be established between the CEC and the Centre, guaranteeing the Centre a supply of discounted renewable electricity. Two structures have been assessed:

- **Option 1 (PPA with LED included):** Centre purchases electricity at 18p/kWh
- **Option 2 (Solar-only PPA):** Centre purchases electricity at 15p/kWh

Both options create cost savings of around £2,000 per annum for the Centre while ensuring fair revenues for the CEC.

Solar Club

Alongside the Visitor Centre anchor project, the study explored the creation of a **community Solar Club**, designed to extend the benefits of renewable energy directly to local households. The Solar Club will allow residents to access solar energy via a PPA with the CEC, removing the need for upfront capital.

Two system types were modelled as examples:

- **Scenario 1:** 3.6 kWp rooftop solar PV (approx. 3,300 kWh/year, 85% self-consumption)
- **Scenario 2:** 5.0 kWp rooftop solar PV with battery storage (approx. 4,500 kWh/year, 90% self-consumption)

Both scenarios assume a PPA tariff of **18p/kWh for Scenario 1** and **20p/kWh for Scenario 2**, compared with a baseline grid tariff of 30p/kWh. This enables households to cut their bills while supporting the wider community energy initiative.

Business Case Summary

Teveral Trails Visitor Centre

Metric	Option 1: With LED (PPA 18p)	Option 2: Solar Only (PPA 15p)
Net Annual Revenue (CEC)	£4,065	£3,813
Payback Period	5.8 years	5.8 years
ROI (20 years)	242%	243%
IRR	16.3%	16.3%

Community Solar Club

Metric	Scenario 1: 3.6 kWp PV	Scenario 2: 5.0 kWp PV + Battery
Annual Revenue (CEC)	£475	£810
Payback Period	9.4 years	9.6 years
ROI (20 years)	112%	106%
IRR	10.1%	10.0%

While the financial return to the CEC is more modest than at the Visitor Centre, the community benefit is significant. Residents save money on energy bills, carbon emissions are reduced, and the model can be scaled up to deliver far-reaching local impact.

Conclusion and Recommendations

This feasibility study confirms that establishing a Community Energy Company (CEC) for Teversal, Stanton Hill & Skegby is both **viable and strategically important**. The study demonstrates that even at a small scale, community energy can deliver measurable benefits: lowering costs, reducing emissions, and creating new income streams that are reinvested locally.

The analysis highlights two clear pathways for the CEC:

- **Anchor project at the Visitor Centre** – providing immediate visibility, strong financial returns, and early community impact. The business case demonstrates robust performance, with short payback and IRR exceeding 16%, making this an ideal first step.
- **Solar Club pilot** – extending benefits directly to households through an accessible, community-owned model. While financially more modest, this initiative strengthens engagement, reduces household bills, and lays the foundation for wider-scale rollout.
- Together, these projects will enable the CEC to build credibility, establish operating processes, and demonstrate how community energy can work in practice for Teversal, Stanton Hill & Skegby.

Recommendations

1. **Proceed to Stage 2 funding** to secure investment for incorporation, detailed design, and procurement.
2. **Incorporate the CEC** as a not-for-profit Community Benefit Society (CBS) or similar structure, ensuring transparency and reinvestment of profits.
3. **Prioritise delivery of the Visitor Centre project** as the first anchor initiative, including rooftop solar, LED upgrades, and EV charging.
4. **Launch a Solar Club pilot of 10–20 homes**, with a view to scaling to 50+ homes once proof of concept is demonstrated.
5. **Develop a clear communications plan** to build community awareness, trust, and participation, led by TSSF with support from Savi Energy.
6. **Plan for long-term growth**, including larger-scale renewables, battery storage, and potential collaboration with Ashfield District Council on strategic energy projects.

Final Statement

This report provides a clear evidence base to show that a Community Energy Company for Teversal, Stanton Hill & Skegby is both achievable and beneficial. By starting small, demonstrating success, and reinvesting returns locally, the CEC can become a trusted vehicle for long-term community energy, delivering social, financial, and environmental benefit for years to come.