

Warm Homes Fund Call for Evidence: WMCA Response

1 June 2026



West Midlands
Combined Authority

ENERGY

CAPITAL

Submission information

Warm Homes Fund: Call for Evidence

Response from West Midlands Combined Authority (Energy Capital)

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Submission date: 1 June 2026

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Summary of Asks

WMCA requests the following from DESNZ:

1. **Establish the national NETF:** Establish the Neighbourhood Energy Transition Fund as a national investment fund with regional allocations and delivery, providing a single investment architecture through which any qualifying region can access CDEL FT capital for area-based neighbourhood retrofit and clean energy delivery, without each region needing to independently negotiate fund terms or replicate the legal and governance architecture.
2. **National Demonstrator Allocations:** Create a ring-fenced National Demonstrator Allocation of approximately [£340m] for WMCA as the anchor National Demonstrator, and equivalent allocations for other regions with the delivery capability, programme pipeline, and institutional readiness to work through the five key proof points on behalf of the wider programme. The Coalition of Place collectively represents the demand for this tier; aggregate National Demonstrator Allocation could approach £1–2bn across committed regions.
3. **Open Allocation mechanism:** Design and resource an Open Allocation mechanism through which regions not initially participating as National Demonstrators can access NETF capital as their delivery capability and programme pipeline develops, drawing on the legal frameworks, investor relationships, and standardised consumer contracts established through the demonstrator phase.
4. **Joint fund design process:** Engagement between WMCA, DESNZ, NWF and GBE to agree capital stack structure, governance design, FT compliance framework, consumer offer architecture, and co-investment terms.
5. **ONS pre-engagement:** DESNZ facilitation of early and informal ONS pre-classification engagement before the fund is formally structured. This engagement should address two specific questions: first, whether a fund vehicle with the design features described in this submission – genuine independent governance, commercial pricing of services, and third-party co-investment – could be compatible with Public Sector Corporation classification under Eurostat guidance; and second, whether Central Government classification of the fund vehicle would mean that the deployment of CDEL FT capital into it does not qualify as a Financial Transaction in National Accounts terms. WMCA understands these questions are not yet resolved even among officials and requests that DESNZ seek clarification from HM Treasury and ONS as a priority.
6. **Payment mechanism legislative pathway:** Early engagement between DESNZ and MHCLG on the Ministerial order pathway under the Local Land Charges Act 1975 s.1(1)(e), to enable the property-linked payment obligation mechanism to be tested in the demonstrator phase without primary legislation.
7. **Collective enrolment mechanisms:** Development of mechanisms enabling SPV-level bulk Boiler Upgrade Scheme (BUS) applications and consumer loan origination through neighbourhood delivery vehicles, treating both as a priority alongside the NETF fund design process.

Introductory Note

This response sets out WMCA's evidence and proposals in relation to the Warm Homes Fund Call for Evidence. It draws substantially on work developed under the DESNZ-funded Local Net Zero Accelerator (LNZA) programme, alongside WMCA's Net Zero Neighbourhood (NZN) delivery programme and the wider programme of activity under Energy Capital including the Buildings Retrofit Pilot. This work has been presented to the Energy Capital Partnership Board, comprised of experts across the broad energy and finance sector, who have endorsed the approach.

The Neighbourhood Energy Transition Fund (NETF) is the direct product of work commissioned by DESNZ through the Local Net Zero Accelerator programme. LNZA funded WMCA to develop an investment model for place-based energy transition – bringing together neighbourhood retrofit, local generation, heat networks and supporting infrastructure into a bundled investment proposition that could attract institutional capital at scale. Early analysis established that pure bundling was insufficient: investors required more structured vehicles, each with a clean investment scope, and the aggregation of projects with varying attractiveness required a management layer capable of cross-subsidising within a portfolio. This led directly to the SPV-based neighbourhood fund model at the heart of the NETF proposal. In parallel, the same analytical work generated a proposition for a non-domestic rooftop solar fund, demonstrating the breadth of what place-based aggregation can unlock. WMCA is not proposing something untested or radical. It is proposing that DESNZ complete the investment it has already made by moving from design to deployment.

The central proposal is a national NETF with regional allocations and delivery. WMCA is seeking a national demonstrator allocation of approximately £340m CDEL Financial Transactions from the £3.3bn innovative finance pot to equity-capitalise the NETF's West Midlands programme allocation – a regional investment vehicle designed to deliver area-based retrofit and clean energy at neighbourhood scale across the West Midlands. This would serve as a National Demonstration of the model, with explicit design for replication, generating the proof points and track record that allow the open allocation (available to any region or local authority with the delivery capability, programme pipeline, and institutional readiness to engage with the fund as a delivery partner) to operate at full confidence nationally. A multi-region programme – with WMCA as anchor National Demonstrator and further regions seeking their own National Demonstrator Allocations or participating through the Open Allocation – would support a proportionally larger aggregate allocation from the pot.

A full technical briefing note – “Area-Based Retrofit and the Case for a Neighbourhood Energy Transition Fund” (Living Places for WMCA, April 2026) – is attached as Annex A. That document contains the fund's full institutional architecture, capital stack, financial model, and national demonstration learning framework.

This response addresses the questions where WMCA has direct evidence to offer. Questions not addressed are omitted intentionally; a focused, evidenced submission is of more value to DESNZ than comprehensive but unsupported coverage.

Note on structure: given that DESNZ may review questions across different sections independently, each section of this response is written to stand alone. Where our evidence is directly relevant to more than one question, we cross-reference between sections to allow reviewers to navigate the fuller argument.

The offer: Every home in a neighbourhood programme area can be upgraded to a fully insulated, low-carbon heated home without the household taking on debt, waiting for a grant, or making monthly payments above their combined energy and maintenance costs at the point of enrolment. That is what the comfort fee (a single monthly payment set against their reduced energy and maintenance costs) delivers.

The vehicle: The Neighbourhood Energy Transition Fund finances this at scale using CDEL Financial Transactions as cornerstone equity to prove the model and generate the track record that turns area-based retrofit into an investible asset class.

The ask: Be the first institutional investor in a new market, so that the market can grow without continued public subsidy.

The NETF Proposal: Overview

This section summarises the NETF for readers working through individual questions; full detail is in Annex A.

National Demonstrator Allocations: what they are and why they matter

The national NETF operates in two modes. The Open Allocation is available to any region or local authority with the delivery capability, existing programme pipeline, and institutional readiness to engage with the fund as a delivery partner. The National Demonstrator Allocation is a ring-fenced capital commitment to an initial cohort of regions that will work through a defined set of proof points on behalf of the wider programme – generating the evidence base that makes the Open Allocation work at full confidence.

National Demonstrator Allocations are not a mechanism for picking regional winners or restricting access. They exist because the programme must answer five primary questions before the model can be replicated with confidence at national scale:

- **Resident response to the consumer offer:** what pricing, comfort framing, and service model drives uptake across different household types and tenures? What are refusal rates, and what neighbourhood-level factors influence them?
- **Investor engagement and debt leverage terms:** at what terms will institutional debt providers participate alongside public equity? What is the minimum equity cushion required to attract private co-investment? Does an NWF guarantee materially improve terms?

- **The property-linked payment mechanism:** testing the Local Land Charge mechanism – established via Ministerial order for the demonstrator phase – including enforceability on property sale, consumer acceptance, interaction with mortgage lending and property valuation, and collection mechanics.
- **Pricing approaches across tenures:** what service charge or comfort pricing structure is acceptable to households, recoverable over the asset life, and sufficient to support the financing model across different neighbourhood archetypes and tenure types?
- **Supply chain response to programmatic demand:** does a guaranteed multi-year pipeline drive cost reduction? By how much, over what timescale, and under what procurement conditions? What investment will the supply chain make in workforce, standardisation, and equipment in response to demand certainty?

Alongside these learning questions, the demonstrator phase must work through two process requirements that benefit from concentrated engagement: early informal ONS pre-classification to establish the fund vehicle's sector classification before formal structuring; and RSH engagement on how co-investment structures with neighbourhood SPVs should be treated in RP regulatory returns.

Regions seeking a National Demonstrator Allocation do not need to have developed their own regional fund architecture – the national NETF provides that. What they need is: a specialist regional delivery function capable of originating and managing neighbourhood programme pipelines, in partnership with local authorities and local stakeholders in the programme area; an existing project pipeline with properties, community engagement, and relevant delivery relationships; and the institutional readiness to act as a delivery partner for a national investment vehicle. WMCA, through Energy Capital, and YNYCA, through its proposed Regional Operating Entity, are ready to engage as initial National Demonstrators. Other regions with equivalent readiness should be able to bring forward strong cases.

What it is. The NETF is a fund structure capitalised with CDEL Financial Transactions deployed as patient equity capital, blended with existing government grant programmes and leveraged with private institutional debt. It originates, structures, and invests in neighbourhood-scale retrofit and clean energy programmes – typically 500 to 2,000 homes – across the West Midlands, with WMCA acting as programme sponsor.

How delivery works. Each neighbourhood programme is delivered through a locally-governed Special Purpose Vehicle (SPV) that receives capital from the fund, contracts with the supply chain for delivery, operation and maintenance, captures project revenues – including comfort fee income, flexibility service payments from the Distribution System Operator (DSO), network reinforcement contributions from the Distribution Network Operator (DNO), and heat supply revenues where applicable – services the capital structure, and returns any surplus to the community.

Local authorities and community partners are integral to scheme design and governance: they contribute local knowledge, hold community relationships, and provide the democratic legitimacy that distinguishes the neighbourhood programme model from commercially-

led retrofit. WMCA's Energy Capital directorate provides the pipeline development function, identifying suitable neighbourhood areas, engaging residents and stakeholders, and advancing projects to investment readiness.

Residents are offered a genuine choice of three payment routes: a comfort fee (a monthly service charge calibrated to the household's pre-retrofit energy bill, with the SPV owning and maintaining assets under a performance guarantee); a Warm Homes Fund consumer loan (where the resident owns assets and captures the full energy bill saving); or cash purchase. This choice architecture is essential to achieving the uptake rates the financial model requires.

The capital stack. In the demonstration phase: existing government grant programmes (Warm Homes: Social Housing Fund, Warm Homes: Local Grant, Boiler Upgrade Scheme) form the non-repayable base layer; CDEL FT equity (£340m for WMCA) provides first-loss patient capital; private institutional debt is leveraged above the equity layer; and small community equity stakes are included. The WMCA ask would fund approximately 10 to 15 neighbourhood delivery programmes, delivering approximately 20,000 homes over the first five-year phase, within a gross capital programme of approximately £640m once grant and debt layers are included. These figures are illustrative orders of magnitude pending further financial modelling. The fund is designed from the outset for multi-region deployment under a single national fund structure with dedicated regional capital allocations. Several local and combined authorities – including York and North Yorkshire Combined Authority, Bristol City Council/West of England Combined Authority, and London Councils – are preparing aligned CfE responses. A coordinated multi-region programme could support a proportionally larger allocation from the £3.3bn pot, potentially approaching £1–2bn for an initial cohort of committed regions.

The financial model. WMCA's modelling shows two scenarios: a base case with conservative assumptions producing positive equity returns below gilt yield, consistent with the HM Treasury Financial Transactions Control Framework (FTCF)'s provision for concessional returns where market failure is being addressed; and an upside case, reflecting demonstrated economies of scale and improved operating performance, with equity returns above gilt yield and debt leverage approaching 1:1.

The full institutional architecture, fund structure, financial model, market failure analysis, and national demonstration learning framework, developed by Living Places for WMCA, are set out in Annex A.

Section 1: Strategic Case

Q1: Do you agree with our assessment of the strategic opportunities, challenges and risks presented by warm homes financial transactions?

WMCA broadly agrees with DESNZ's assessment, but wishes to add three structural points that we consider under-weighted in the current framing, and one overarching observation on the political context in which the WHF is being designed.

1. The demand-side problem: why low-cost finance to individual households is insufficient as the primary instrument

The CfE alludes to low demand for green finance but does not fully diagnose its cause. The primary reason is not consumer irrationality or lack of awareness. It is that for a significant proportion of households, even zero-interest finance leaves them net worse off: the repayment obligation on a consumer loan, even at zero interest over a realistic term, will in many cases exceed the energy bill saving generated by the measures financed. The net effect is household impoverishment, not improvement. Rational households will – and should – decline finance that makes them poorer. This is particularly acute where the retrofit need is greatest – typically older, less energy-efficient properties occupied by households on lower incomes, where high capital costs and limited energy bill savings combine to make any repayment obligation net negative. The overlap between highest retrofit need and lowest disposable income is substantial, though not complete; for households above the fuel poverty threshold who could in principle service a loan, debt aversion remains a significant independent barrier. This structural problem is not evenly distributed across England. Regions with older housing stock, higher rates of fuel poverty, and lower average household incomes – including the West Midlands – face a disproportionate version of it. A policy framework that relies primarily on individual household debt instruments will therefore systematically underserve the regions with the greatest retrofit need, exacerbating rather than reducing existing regional inequalities in energy costs and housing quality. WMCA considers this a material risk that the WHF design must explicitly address.

The arithmetic is straightforward. For a typical owner-occupier considering individual finance, a full PV/battery/fabric/heat pump project will cost around £31,500. After deducting BUS, the residual borrowing is approximately £24,000. At a 4.5% mortgage rate over 25 years, the annual repayment obligation is approximately £1,600 – against an energy bill saving of approximately £1,000 per year. The household is £600 per year worse off. Even at zero interest over 25 years, the repayment of £960 leaves only £40 of net annual benefit. The position deteriorates further for the typical owner-occupier: the average UK homeowner is 56 years old and most lenders require mortgages to be repaid before age 70, compressing the realistic term to 14 years. At 4.5% over 14 years the repayment rises to approximately £2,350 – more than twice the energy saving. Even the WHF consumer loan at a subsidised rate of 2% produces an annual repayment of £1,230 over 25 years, or £1,980 over a 14-year term for a 56-year-old borrower.

These are not edge cases. They represent the central tendency for the archetypes where retrofit need is greatest.

Overlaid on this economic reality is a well-evidenced behavioural reluctance to take on debt even when it is marginally economically rational to do so. WMCA is aware this view is contested. Our position, based on programme experience – including instances within WMCA's Net Zero Neighbourhood programme where households declined deeply subsidised retrofit offers – and corroborated by the Energiesprong Comfort Plan research (DESNZ-funded, April 2025), is that this optimism is not well-founded for the majority of households in the archetypes where retrofit need is greatest.

This does not mean debt instruments have no role. The consumer loans scheme (the £2bn already allocated) is appropriate for households where the economics work and who wish to own their assets. But it cannot be the primary vehicle for reaching the households and property archetypes where the retrofit need is greatest. At the same time, neighbourhood delivery activates positive participation motivations that individual marketing cannot replicate: the visible improvement of a shared street environment, peer influence from early adopters, the sense of collective agency in a neighbourhood-level change, and the tangible improvements to housing comfort and quality that residents can observe in nearby homes before making their own decision. The NETF model is specifically designed to activate these motivations through place-based community engagement.

2. The complexity problem: why individual households cannot lead delivery

The second structural problem is the cognitive and practical burden placed on individual households to lead their own retrofit: understanding which combination of measures is appropriate for their specific property; identifying and engaging reputable suppliers in a fragmented and variable-quality market; coordinating multiple contractors; and managing quality assurance through to completion. Complexity and friction are independent deterrents even where finance is available.

The neighbourhood programme model resolves this by taking the complexity off the individual household through collective design, expert project management, programmatic supply chain engagement, and rigorous quality assurance. The household's decision is simply whether to participate and which payment route to choose. This decision is further simplified by the visible evidence of neighbouring properties that have already been delivered – residents can see working installations on their street, speak to neighbours about their experience, and make an informed choice based on tangible local outcomes. WMCA has experienced this dynamic directly in the early delivery phases of its Net Zero Neighbourhood programme in Brockmoor, Dudley, where peer influence from initial adopters materially accelerated subsequent demand. This demand-creation effect is only possible through place-based delivery and cannot be replicated by individual marketing, however well-designed. The programme's role also extends beyond delivery management to protecting the consumer benefit through programme conditions: in the private rented sector, for example, the neighbourhood programme can

incorporate a rent freeze or cap period as a condition of fund investment, preventing landlords from immediately recapturing the tenant's financial benefit through rent increases – a form of coordination that no individual household could achieve alone.

See also: Q29-31 (*the NETF as the institutional architecture that enables delivery at this scale*)

3. The two-level structure of the problem – and why instrument choice at each level matters

The challenge operates at two distinct levels which require different analytical frameworks and different instrument choices. This distinction is important because conflating the two levels leads to the wrong instrument conclusions.

End-deployment level – financing reaching individual households: debt instruments alone cannot be the primary vehicle for reaching the households where retrofit need is greatest. The neighbourhood model's payment architecture (comfort fee, consumer loan, or cash purchase offered in parallel) allows households to participate through whichever route fits their circumstances.

Programme level – government deploying CDEL FT into a fund or delivery vehicle: the argument for equity over debt is entirely distinct and stands independently of the end-deployment problem. The two levels are linked because the programme-level return on public equity depends on the income streams generated at household level – but the instrument choice at programme level must be made on its own structural merits. We develop this fully in Q3.

Overarching observation: the inherent tension between WHF ambition and FT fiscal conservatism

There is an inherent tension between the innovative financing ambition of the Warm Homes Plan and the fiscal conservatism necessarily embedded in the Financial Transaction instrument. The same tension is present in the Local Power Plan (LPP). FT instruments are capital-preserving and generate return requirements; the models needed to deliver innovative neighbourhood-scale retrofit at first-of-kind scale require patient capital deployed in conditions of genuine uncertainty, where early returns will be concessional and where the evidence base for later returns can only be built by deploying capital at scale.

Resolving this tension is ultimately a political question – one that requires ministerial risk appetite and active Treasury engagement – rather than a technical question that can be engineered away through instrument design alone. WMCA's view is that if the conservative path is taken, there is a material risk that the WHF's innovative finance pot is deployed into instruments that are fiscally cleaner but do not deliver the programme's stated ambitions, and/or remain partially undeployed.

See also: Q2 (*evidence on limits to green finance uptake*), Q3 (*two-level instrument design and capital evolution*), Q17-20 (*property-linked payment obligation vs PLF*), Q29-31 (*area-based investment funds*), Q32 (*ONS classification as the central policy barrier*)

Q2: What evidence is there on the factors that most significantly limit the uptake of green finance?

As set out in Q1, the primary constraints on retrofit delivery are not lack of consumer awareness or interest in finance, but the structural unsuitability of individual household debt instruments for the majority of the properties and households where retrofit need is greatest, combined with the practical complexity of self-managed delivery. The question of what limits the uptake of green finance must therefore be understood in the context of those structural constraints – the relevant failure is not simply in the finance market but in the absence of a delivery architecture that makes participation rational and simple for households. WMCA's programme experience, supported by financial modelling and evidence from the LNZA programme, points to five structural factors:

1. **Absence of aggregation.** Individual retrofit projects are too small, too heterogeneous, and too early-stage to attract institutional capital on acceptable terms. The pipeline is too fragmented to reach financial close – that is, to secure the funding commitments needed to begin delivery – without upstream investment in project development. This upstream development finance is not a peripheral nice-to-have: it is the prerequisite for any capital deployment at all. Area-based retrofit programmes are perpetually 12 to 18 months away from needing capital funding until they have capital funding. Capital allocated without embedded project development funding will not be deployed. This is not a problem that lower interest rates on consumer loans resolves; it requires an aggregating vehicle – and an aggregating vehicle is, by definition, an area-based delivery programme.

The neighbourhood is a natural unit of aggregation: it is large enough to create investable-scale projects, small enough to enable genuine community engagement, and geographically coherent enough to capture system-level revenues. There is no fixed definition of neighbourhood scale – it will vary by place, density and programme design. For modelling purposes, WMCA has used an indicative area of approximately 1,000 homes, reflecting the minimum scale at which programme economics become viable; this is an analytical assumption, not a programme constraint.

The experience of the UK Infrastructure Bank (UKIB, since rebranded as the National Wealth Fund) illustrates the underlying problem precisely: when UKIB established a local and combined authority lending pool offering capital at 40 basis points below the Public Works Loan Board rate, initial uptake was very low despite the materially cheaper cost of finance. The reason was not the cost of capital but the absence of investment-ready projects to draw against. Capital availability without a pipeline of investable programmes does not unlock delivery.

2. **First-loss risk.** The area-based neighbourhood delivery vehicle that resolves the aggregation problem itself requires first-loss public equity capital to establish. Private capital will not capitalise a first-of-kind neighbourhood programme without a public anchor

willing to absorb early-stage risk. The equity gap – the absence of patient, concessional public equity – is the primary barrier to institutional debt participation, not the cost of that debt.

3. **Revenue uncertainty.** The revenue streams that make neighbourhood retrofit financially viable are real but not yet proven at the scale and tenor required for private debt underwriting. Early-stage programmes require patient capital aligned with revenue maturation, not fixed debt service obligations.
4. **Consumer trust and offer design.** Energiesprong Comfort Plan research (DESNZ-funded, April 2025) identified that positive returns require a minimum of approximately 400 enrolled homes cumulatively, and that a clear narrative, fair financial benefits, robust affordability checks, and transparent billing are the primary drivers of uptake. This is only achievable through area-based delivery with a trusted local convenor.
5. **Coordination failure.** Heat network developers, DNOs, housing providers and households each act independently, destroying value that coordinated neighbourhood action would create. No private actor has the incentive or authority to coordinate across these parties.

These five failures are not independent – they are mutually reinforcing, and they point to a single structural solution: an area-based investment fund, capitalised with patient public equity, that resolves the aggregation problem, absorbs first-loss risk, creates the conditions for private debt participation, provides the trusted local convenor that consumer engagement requires, and coordinates across the parties that currently act independently. The NETF is that solution. We set out how in Q3 and Q29-31.

Q3: What wider loan or equity-based interventions in the warm homes market could unlock demand at scale?

Q1 established that the challenge operates at two distinct levels – end-deployment to households and programme-level capital deployment – and that different instrument logic applies at each. Q2 identified five structural failures that together explain why retail finance and individual household delivery cannot unlock demand at scale, and pointed to area-based delivery with patient public equity as the structural solution. This response sets out specifically how that solution works and why equity Capital Departmental Expenditure Limit Financial Transactions (CDEL FT) is the correct programme-level instrument.

WMCA's response addresses the two levels of the financing challenge in turn – programme-level deployment and end-deployment to households – before describing the capital evolution trajectory that makes the model financially sustainable over time without permanent public subsidy.

Programme-level deployment: why equity CDEL FT is the correct instrument

Even setting aside the end-deployment constraints described in Q1, equity is the better fit than debt at programme level for four structural reasons.

First, the revenue streams that would service programme-level debt are themselves uncertain and unproven at the required scale and tenor. There are three distinct categories of uncertainty over revenue streams and programme economics that the national demonstration is designed to resolve:

- **Consumer uptake rates:** what proportion of households in a neighbourhood will sign up, over what time period, and through which payment route, directly determines the comfort fee service charge revenue stream – the primary income source for the SPV.
- **Revenue stream performance:** Distribution System Operator (DSO) flexibility income and other system revenues are real but not yet bankable at the scale and tenor required for private debt underwriting. These revenue streams require aggregated, smart neighbourhood assets to generate and cannot be accessed fully by individual households acting alone.
- **Economies of scale in delivery:** whether programmatic demand does in fact drive the supply chain cost reductions assumed in the financial model. UKERC and University of Edinburgh/Imperial research (2024) confirms that UK heat pump costs have not materially fallen over the past decade due to fragmented demand; the differential between high-volume operators and the market average suggests material cost reduction is achievable at scale, but must be demonstrated rather than assumed.

Locking in fixed debt service obligations ahead of resolving these uncertainties is incompatible with the innovation and learning objective of a national demonstration.

Second, the innovation requirement itself argues for equity. A national demonstration is by definition testing unproven models – in this case, the innovation spans the delivery model (neighbourhood-scale demand aggregation and coordinated multi-tenure delivery), the financial structure (equity-funded SPV with comfort fee income streams and leveraged private debt), the consumer offer (the multi-route payment architecture), and the revenue model (including exploration of additional income streams not yet proven in neighbourhood retrofit at scale: network reinforcement and grid upgrade avoidance payments, where the DNO benefits from deferred or reduced network investment as a result of coordinated neighbourhood electrification; demand response and flexibility service revenues from aggregated smart assets; and heat supply revenues where the programme includes heat network connection). WMCA and National Grid Electricity Distribution (NGED) have committed to a joint innovation project specifically to test and quantify network reinforcement avoidance and flexibility revenue streams at neighbourhood scale in the West Midlands – the first programme of its kind in England. Equity absorbs variations in ramp-up pace and consumer uptake that are inherent in any genuine innovation; debt does not. An SPV that must service fixed debt obligations cannot easily adjust its consumer offer or programme pace in response to early evidence.

Third, the leverage objective requires equity as the foundation layer. Private institutional debt cannot be attracted into early-stage SPVs without a first-loss equity layer below it. Deploying

government capital as debt rather than equity removes the very mechanism by which private capital is crowded in. Debt cannot leverage more debt; equity leverages debt.

Fourth, the recycling objective is better served by equity. Equity distributions from successful SPVs can be recycled by the fund into new neighbourhood programmes as the portfolio matures. Debt repayment returns capital to the Treasury on a fixed schedule regardless of programme performance and without the reinvestment flexibility that a fund structure enables.

We note that debt instruments are likely to feature prominently in other CfE responses, partly because they are fiscally cleaner in terms of ONS classification. WMCA acknowledges this advantage. Our position, developed in Q32, is that the ONS classification challenge is real and significant, and that the fiscal tidiness of debt at programme level is outweighed by its structural unsuitability for the innovative financing the WHF is designed to deliver.

End-deployment: the role of existing grant programmes and consumer payment architecture

At the end-deployment level, the NETF does not operate in isolation. Existing government grant programmes – Warm Homes: Social Housing Fund, Warm Homes: Local Grant, the Boiler Upgrade Scheme, and the consolidated low-income successor programme committed in the Warm Homes Plan from 2027/28 – form the base layer of the capital stack within each neighbourhood programme, covering the highest-cost interventions for fuel-poor cohorts and social housing. These programmes are already committed; the NETF does not replace them but provides the integrating delivery architecture that allows them to work together in the same neighbourhood, at the same time, for the same households. This is core to the NETF model: by operating on a place basis, the fund can deliver to homes that do not qualify for grant – owner-occupiers above income thresholds, private renters with able-to-pay landlords, households in mixed-tenure streets – alongside those that do, in the same programme, with the same supply chain and community engagement. Grant-eligible homes benefit from reduced per-unit costs through the programme’s scale economics; non-grant-eligible homes can participate on comfort fee terms that would not be viable in a standalone installation. This blending of grant and repayable capital reduces the net financing requirement and therefore the total CDEL FT ask.

Above the grant layer, the NETF’s consumer payment architecture offers three routes simultaneously: the comfort fee (a service charge calibrated to the household’s pre-retrofit energy bill, with the SPV owning and maintaining assets – no household debt); the WHF consumer loan (household owns assets, captures full bill saving, services a loan); and cash purchase. The comfort fee and the consumer loan are both forms of income stream to the programme, but they create different types of obligation and credit risk. The comfort fee creates a service payment obligation with no household debt; the risk profile attached to that payment differs from a loan repayment, and the recovery position is different. The consumer loan creates a personal debt obligation with the household. Offering all three routes simultaneously – rather than requiring all households to take or leave a single offer – materially increases aggregate uptake and therefore the income stream supporting the financial model.

The three routes are not equivalent from a capital deployment perspective. The cash and loan routes are capital-efficient for the fund: the resident funds the upfront cost and the SPV earns a one-time programme management contribution and a one-time introducer fee from the loan provider, without deploying CDEL FT equity against a long-term return obligation. The comfort fee route deploys CDEL FT equity to fund installation and generates the long-term service charge income that services that return obligation. Critically, the three-route architecture creates a self-selection mechanism for the able-to-pay market: households who can fund upfront costs do so, reducing the CDEL FT required per programme and allowing the same public capital allocation to reach more homes overall. This drives the supply chain volumes that create economies of scale for all participants – installers, lenders, and equipment manufacturers – regardless of which route individual households choose. Each pound of CDEL FT therefore delivers more households and more supply chain cost reduction than a single-route comfort fee model would achieve. This connects directly to the economies of scale uncertainty category identified above: the three-route architecture is itself part of the mechanism through which those economies are generated and tested.

The Warm Homes Fund's objective is to unlock demand for home upgrades at scale. The evidence above establishes that debt instruments deployed to individual households cannot achieve this for the majority of the households and archetypes where retrofit need is greatest. The comfort fee and property-linked payment obligation – deployed through neighbourhood programmes capitalised by equity CDEL FT at programme level – are the instruments that can. The thread from programme-level instrument choice to unlocked household demand is direct: CDEL FT equity absorbs first-loss risk, enabling the SPV to fund installation; the SPV offers the comfort fee at a rate calibrated below the energy bill saving; the household participates because the offer is economically rational and practically straightforward; and demand is unlocked at the scale that a funded neighbourhood programme achieves.

The capital evolution trajectory: not signing up to fund everything forever

The most important point WMCA wishes to make about the WHF's investment in the NETF is that it is a catalyst, not a permanent subsidy. The public investment creates the conditions under which it becomes progressively less necessary. This trajectory operates across three phases:

- **Phase 1 – Demonstration:** Grant base layer (non-repayable) + CDEL FT equity (first-loss, concessional returns) + limited private institutional debt + small community equity stakes. CDEL FT is doing the heavy lifting because the model is unproven and the three categories of uncertainty are unresolved.
- **Phase 2 – Scaling:** As consumer uptake rates are proven, service charge income streams are demonstrated, and economies of scale in delivery are established, patient private sector debt becomes available alongside the public equity. Debt leverage increases, reducing the public capital required per unit of delivery. The CDEL FT invested in Phase 1 begins to be recycled into new programmes. Community equity stakes grow.
- **Phase 3 – Maturity:** Private sector patient equity – infrastructure funds, pension funds, impact investors – participates alongside or refinances the public equity. Grant programmes remain for the deepest interventions throughout. CDEL FT is progressively

recycled to new regions. Public involvement shifts from capital provision to governance, standard-setting, and replication support.

This trajectory is only achievable if the Phase 1 instrument is equity, not debt. A debt deployment would generate a return on a fixed schedule but would not create the track record, governance standards, or demonstrated revenue streams that attract private equity in Phase 3. Only the equity structure creates the conditions for this transition.

Who else should contribute financially

Where the payment obligation is calibrated below the energy bill saving – achievable in neighbourhood archetypes with significant energy saving potential and at-scale delivery economics – mortgage lenders are direct financial beneficiaries of the programme: their borrowers' disposable income increases (improving mortgage serviceability), their collateral value improves (EPC ratings rise), their credit risk from energy cost stress is reduced, and their portfolio EPC mix improves against their own regulatory and ESG obligations. WMCA is prepared to explore with UK Finance whether lenders should contribute financially to programme costs – through programme fees, co-investment, or preferential loan origination terms. This reframes lender engagement from risk mitigation to value creation.

Lender financial participation would also directly improve the fund's economics: reducing the total public capital required per programme means the same government investment can reach more neighbourhoods for no additional public cost. This argument applies most strongly in neighbourhood archetypes where bill savings exceed payment obligations; in fuel-poor areas where comfort upgrade rather than bill reduction dominates, the lender benefit is correspondingly less direct.

The ONS classification question: a prerequisite, not a design detail

WMCA acknowledges that equity instruments raise ONS classification questions that debt instruments do not, and we address this fully at Q32 and Q36. The honest position is that Public Sector Corporation status is the preferred outcome and, with careful fund design, could be compatible with the structure proposed – but this is a case-by-case judgment with ONS and cannot be guaranteed in advance. The implications of Central Government classification are more serious than a simple difference in fiscal scoring: there is a genuine question, which WMCA understands is not yet resolved even among officials, about whether deployment of CDEL FT into a Central Government-classified entity would qualify as an FT at all in National Accounts terms, or whether it would be reclassified as a grant. If the latter, the capital does not exist as FT and the programme cannot proceed on the basis currently envisaged. This is why early informal ONS pre-engagement is an essential step before fund design is finalised, and why WMCA requests DESNZ facilitation of that engagement as a priority ask. Resolving the ONS question is not peripheral to the demand-unlocking objective of the WHF – it is a prerequisite for it. Without clarity on FT eligibility and the fund vehicle's classification, no fund can be designed, no capital can be committed, and demand remains locked regardless of the quality of the programme design. In WMCA's view, if the ONS classification question cannot be

resolved in a way that preserves the FT treatment, the Warm Homes Fund's objectives for innovative neighbourhood-scale financing are unlikely to be met.

See also: Q29-32 (*area-based investment funds*), Q33-36 (*blended finance*), Q17-20 (*property-linked payment obligation and lender engagement*), Q32 (*ONS classification as the central policy barrier*)

Q4: How should the Warm Homes Fund ensure it includes an offer suitable for those on low incomes?

The NETF model is designed to be tenure-neutral and income-inclusive. The SPV is always the delivery vehicle: it manages programme design, procurement, project management and quality assurance regardless of how the household pays. What varies across the three payment routes is asset ownership, ongoing maintenance responsibility, and capital deployment from the fund.

For owner-occupiers

All three routes are available. Under the cash purchase or consumer loan route, the resident pays cash to the SPV – whether from savings or from a consumer loan the SPV has introduced them to through the WHF consumer loans programme – the SPV delivers the works, and the resident owns the assets post-delivery. The SPV earns a one-time programme management contribution from the resident and a one-time introducer fee from the loan provider, reflecting its role in originating a qualified applicant at materially lower customer acquisition cost than the lender would otherwise incur. Under the comfort fee route, the SPV retains asset ownership and maintenance responsibility throughout, and the resident pays an ongoing service obligation in respect of the low-carbon energy infrastructure installed in their property, calibrated to their pre-retrofit energy bill.

The three routes are not equivalent from a capital deployment perspective. The cash and loan routes are capital-efficient for the fund: the resident funds the upfront cost and the SPV earns its one-time contributions without deploying CDEL FT equity against a long-term return obligation. The comfort fee route deploys CDEL FT equity to fund installation and generates the long-term service charge income that services that return obligation. Critically, the three-route architecture creates a self-selection mechanism for the able-to-pay market: households who can fund upfront costs do so, reducing the CDEL FT required per programme and allowing the same public capital allocation to reach more homes overall. This improves capital efficiency for the fund and drives the supply chain volumes that create economies of scale for all participants – installers, lenders, and equipment manufacturers – regardless of which route individual households choose. Each pound of CDEL FT therefore delivers more households and more supply chain cost reduction than a single-route comfort fee model would achieve.

For private rented sector properties

The landlord provides consent and access but does not bear capital cost. The fund invests directly and the tenant pays the service obligation to the SPV. The tenant benefits from

improved comfort and lower energy bills; the landlord benefits from improved property value and EPC rating without capital outlay. A matched contribution from the landlord is a design option under exploration but is not a requirement of the model. WMCA also proposes that a rent freeze or cap period should be considered as a condition of fund investment in PRS properties. Without such a condition, landlords could immediately increase rents following delivery, eliminating the net financial benefit to the tenant and undermining the consumer protection case for the programme.

For social housing

The RP deploys Social Housing Fund grant and matched funding to cover the elements of the retrofit programme that grant supports. The fund co-invests in the same neighbourhood programme alongside the RP through coordinated procurement to capture efficiency gains, but the two capital streams sit in separate structures – the RP’s capital does not flow into the SPV. The comfort fee from the SPV’s installed assets flows to the SPV in the same way as in any other tenure, enabling the programme to go deeper than grant alone can fund. Where SHF grant and RP matched funding is deployed alongside the fund’s equity, the fund’s capital contribution per property is proportionally lower – and the comfort fee can therefore be set at a structurally lower level for social tenants as a natural consequence of the blended capital structure, rather than as a discretionary subsidy. An additional fuel-poor discount may still be appropriate for underheated homes where even the structurally lower fee would leave residents worse off.

The comfort fee is structured as an ongoing service obligation in respect of the low-carbon energy infrastructure installed in the property. Where a fuel-poor discount is applied to the comfort fee for a specific occupant, that discount is assessed on the circumstances of that individual household and is not permanently attached to the property. When occupancy changes, the fee can be reassessed for the incoming occupant, who may or may not qualify for a discount on their own circumstances.

WMCA also notes that the NETF fund structure is designed to receive additional grant top-up for the most deprived cohorts should government choose to provide it in future – for example through enhanced allocations from the Warm Homes: Local Grant or the consolidated low-income successor programme committed in the Warm Homes Plan from 2027/28 – without the financial model being dependent on that grant materialising.

Critically, the neighbourhood programme provides an origination and support infrastructure for all three payment routes simultaneously. No household in a neighbourhood programme area is excluded purely because their tenure or income profile does not fit a single product.

See also: Q24-27 (*revenue and savings sharing / comfort fee*), Q13 (*consumer loans and BUS origination*)

Section 1: Aims, Scope and Eligibility

Q5: Do you agree with the proposed overarching aims of the Warm Homes Fund?

Yes. WMCA agrees with the proposed overarching aims. Reducing household energy costs, improving energy efficiency, supporting the transition to clean heat, and mobilising private investment alongside public capital are all well-founded objectives that align with WMCA's programme work.

WMCA's one addition to the aims framing is that the objectives can only be fully achieved through area-based delivery models operating at neighbourhood scale. Individual household programmes and individual consumer finance products, however well-designed, cannot on their own deliver the economies of scale, system revenues, or community engagement dynamics that make the aims achievable at the pace and depth required. The Warm Homes Fund's aims should therefore be understood as requiring not just the right financial instruments but the right delivery architecture – which is what the NETF, set out in the overview to this submission and in the attached briefing note, is designed to provide.

See also: Q1-3 (strategic case), Q29-31 (area-based investment funds as the delivery architecture for the aims)

Q6: Do you agree with the proposed technology scope and are there any technologies missing that you think the Fund should focus on?

WMCA broadly agrees with the proposed technology scope. The core technologies – solar PV, batteries, heat pumps, heat networks, energy efficiency fabric measures – are the right focus. WMCA wishes to add two points on how the scope should be defined and applied:

Community-scale battery storage is not explicitly included in the proposed technology list. Community batteries – shared storage assets serving a neighbourhood rather than an individual household – are a material component of the NETF financial model. They create shared grid flexibility revenues that are unavailable to individual household batteries, reduce per-unit capital cost through shared infrastructure, and are integral to the smart local energy system economics that make neighbourhood-scale programmes viable. There is also a direct practical barrier to individual household batteries that community-scale storage resolves: installation in individual homes requires internal space, typically a cupboard or utility room, which is a real deterrent to household consent and programme sign-up, particularly in older terraced housing stock where available space is constrained. This has been directly identified through community engagement in WMCA's Castle Vale Net Zero Neighbourhood programme as a material barrier to participation. A community battery serving multiple homes eliminates this barrier entirely: no internal installation, no disruption to household living space, lower per-unit capital cost through shared infrastructure, and materially better grid flexibility revenues through aggregated dispatch.

WMCA requests that community-scale battery storage be explicitly included within the Fund's technology scope as a distinct and preferred option where space constraints limit individual household battery installation.

Technology scope should be assessed at the programme level, not the individual measure level. A neighbourhood programme combining fabric retrofit, heat pump installation, rooftop solar PV, community battery, and smart controls delivers greater decarbonisation, better financial economics, and stronger consumer outcomes than any individual technology deployed alone. Requiring each measure to independently satisfy technology eligibility criteria risks fragmenting neighbourhood programmes or excluding measures that are financially and technically necessary for the programme as a whole to work. WMCA requests that the Fund's technology scope be applied at the programme level, with individual measures assessed in the context of the whole programme rather than in isolation.

See also: Q8 (neighbourhood-scale integrated delivery as an eligible activity type), Q29-31 (NETF structure)

Q7: What is the extent to which the Warm Homes Fund could support additional measures in new build social and affordable housing?

The focus of this consultation response is primarily to support WMCA's challenge of how to address existing stock retrofit, rather than new build, and so WMCA is not responding in detail to this question. WMCA notes that the financial architecture for new build is materially different from existing stock retrofit: upfront costs are integrated into development finance rather than retrofitted onto occupied homes and the pipeline aggregation challenge is different in nature. The NETF model is specifically designed for existing stock and mixed-tenure neighbourhoods and at this stage does not directly address new build challenges, which WMCA is tackling through other routes.

Q8: Do you agree with the proposed list of activities the Warm Homes Fund could support and are there any other types of activities that should be supported?

WMCA broadly agrees with the proposed activities list. WMCA wishes to add one activity type that is not currently explicit in the proposed list and that is central to our submission:

Neighbourhood-scale integrated delivery programmes as a distinct activity type. The proposed list focuses on individual financial instruments and mechanisms (loans, equity, revenue sharing, bulk purchasing) without explicitly including the integrated delivery programme model that combines multiple mechanisms, technologies, and funding streams around a single neighbourhood geography. The NETF is not simply a loan fund or an equity fund – it is a programme architecture that deploys multiple instruments simultaneously in the same place.

This activity type – the integrated neighbourhood delivery programme – should be explicitly recognised in the Fund’s activities list as it requires a different structural approach from single-instrument deployments.

Non-domestic buildings as part of neighbourhood programmes. The ministerial foreword to the CfE notes that DESNZ will consider how the Fund could support non-domestic buildings, including voluntary and community sector buildings, mixed-use and smaller commercial sites. WMCA strongly supports this inclusion. In a neighbourhood retrofit programme, non-domestic buildings – schools, community centres, faith buildings, co-located commercial premises – are not peripheral; they are integral. They provide additional rooftop generation capacity that improves programme economics; they serve as community anchor points for engagement and trust-building; and they represent a significant proportion of the energy demand in any mixed-use neighbourhood. Restricting the Fund to residential buildings would materially reduce the economics and impact of neighbourhood programmes. We develop this in Q9-11. WMCA has signed a Memorandum of Understanding with Great British Energy and is in active discussion with GBE on alignment between the NETF and the Local Power Plan, including potential co-investment in neighbourhood programmes combining retrofit with local energy generation assets.

See also: Q6 (technology scope at programme level), Q9-11 (non-domestic buildings), Q29-31 (NETF structure)

Q9: What barriers in the current finance landscape prevent non-domestic and mixed-use buildings from investing in low carbon technologies?

WMCA’s evidence on this question is primarily from the perspective of non-domestic buildings as participants in neighbourhood retrofit programmes, rather than as standalone investment targets. Before identifying the specific barriers, it is worth noting that the structural problem facing non-domestic building owners is directly analogous to that facing individual households – and is, in many cases, more acute.

For non-domestic buildings, the upfront capital cost of retrofit frequently exceeds the energy bill saving achievable on conventional financing terms, creating the same net-worse-off dynamic identified at Q1 for households. Commercial and community building owners face the same impoverishment risk: the repayment obligation on a commercial loan, even at concessional rates, will in many cases exceed the energy bill saving generated by the measures financed, particularly for older buildings with complex systems and high per-unit improvement costs. Complexity is equally acute: a non-domestic building retrofit typically requires coordinating fabric improvements, heating system replacement, generation assets, controls integration, and metering upgrades, each with separate contractors and supply chains. No building trustee, managing agent, or small landlord has the capacity to manage this independently.

The NETF neighbourhood programme model addresses both structural problems in the same way as for residential: collective procurement through an SPV removes the complexity burden; the comfort fee or service charge applied at building level rather than occupant level provides the payment mechanism that keeps the building operator net better off; and programme-level economies of scale reduce per-unit capital costs. Key barriers from the neighbourhood programme perspective are:

- **Fragmented ownership and governance.** Community buildings, faith buildings, and small commercial premises often have complex ownership structures – trustee arrangements, leasehold interests, shared freehold – that make individual investment decisions slow and difficult. A neighbourhood programme that manages consents and investment decisions collectively across multiple buildings substantially reduces this barrier.
- **Split incentives.** In commercial and mixed-use buildings, the landlord-tenant split incentive is acute: building owners bear capital costs while occupiers receive energy bill savings. The comfort fee / service charge model developed for residential use could in principle be applied to commercial and community buildings in modified form, with the building operator rather than individual occupants as the service charge payer.
- **Small scale and high transaction costs.** Individual non-domestic buildings outside the larger social housing or public estate are typically too small to attract institutional finance at acceptable transaction costs. Aggregation within a neighbourhood programme resolves this by creating a single transaction that encompasses multiple building types.
- **Absence of standardised finance products.** No standardised finance product currently exists for mixed-tenure, mixed-use neighbourhood retrofit. The NETF SPV structure, applied at the neighbourhood level, can accommodate non-domestic buildings alongside residential within the same vehicle.

See also: Q8 (non-domestic as part of neighbourhood programmes), Q10-11 (how WHF addresses these barriers)

Q10: How could the Warm Homes Fund address these gaps with repayable finance where the government makes a return?

The NETF neighbourhood programme model provides the mechanism. By treating the neighbourhood as the unit of investment – rather than the individual building – the SPV structure can encompass non-domestic buildings within the same programme area alongside residential properties. Non-domestic buildings contribute additional generation capacity (rooftop solar), shared infrastructure value (community battery participation), and community engagement function, all of which improve the overall programme economics and strengthen the financial case for the repayable capital layer.

Where non-domestic buildings include schools, the additional generation capacity from school rooftops within a neighbourhood creates a natural anchor for community battery infrastructure, with export revenues flowing to the programme SPV. This improves returns to the equity investors and strengthens the case for private debt co-investment. The government earns a

return through equity distributions from the SPV, with non-domestic building participation improving rather than complicating the return profile.

WMCA notes the tension: the WHF's primary framing is residential, and including non-domestic buildings within the Fund's scope requires a design decision about whether the Fund invests in the neighbourhood programme (which encompasses non-domestic buildings) or directly in individual non-domestic buildings. WMCA's preferred approach is the former – the Fund invests in the neighbourhood SPV, which manages the programme across all building types within the geography.

Ongoing regulatory developments further strengthen the economic case for the neighbourhood programme approach to non-domestic buildings. BSC modification P442, which came into force in 2025, already improves the economics of neighbourhood-scale licence-exempt energy supply by enabling accurate metering and cost exemption for local generation matched with local demand. The anticipated implementation of P441 – which would formalise Complex Site Classes and enable local energy trading arrangements between multiple generators and consumers within the same network area – would further improve the neighbourhood programme's ability to trade power between community assets and participating buildings, strengthening both the financial model and the case for a neighbourhood rather than individual building approach.

See also: Q8 (neighbourhood programmes as activity type), Q29-31 (NETF SPV structure)

Q11: Should government focus non-domestic funding on one or more of the following groups: A) VCSE Sector B) SMEs C) Hospitality and Retail D) Other?

From WMCA's neighbourhood programme perspective, the relevant non-domestic groups in priority order are:

1. **VCSE sector (A).** Community buildings, faith buildings, and voluntary sector facilities are the most important non-domestic participants in neighbourhood retrofit programmes. They serve as community anchor points, they have the strongest community trust and engagement function, and they are typically the most fuel-poor non-domestic buildings in the programme geography. Their inclusion in the programme also strengthens the case for shared generation and storage infrastructure. The VCSE sector also overlaps with the community energy use case (Q66-68).
2. **Other non-domestic sectors (D) – specifically schools and public buildings.** Schools within a neighbourhood programme geography are important for two reasons: they provide significant rooftop generation capacity that improves programme economics; and they serve as trusted community institutions whose participation signals programme legitimacy and accelerates residential uptake. WMCA notes that schools are publicly owned and therefore raise the same intra-public-sector FT questions as other local authority assets – but within the neighbourhood SPV structure, the school's participation can be structured as a service agreement rather than a direct investment, preserving the FT treatment.

3. **SMEs (B) and hospitality and retail (C).** WMCA does not wish to dismiss these groups. SMEs and hospitality and retail occupiers typically do not own their premises – commercial leasehold is the dominant tenure in mixed-use neighbourhood areas – and therefore face the same landlord-tenant split incentive as private rented sector residential tenants: the building owner bears capital costs while the occupying business captures energy bill savings. The comfort fee or service charge model applies in principle to commercial premises in the same way as to residential properties: the fund invests, the building receives the improvement, the occupying business pays a service charge calibrated below their energy cost saving. Local commercial premises – the neighbourhood shopkeeper, the community landlord, the local café – can also play an important role in community trust and programme engagement as focal points where residents discuss and share experience of the programme. WMCA’s recommendation is that non-residential commercial occupiers in mixed-use neighbourhood programme areas should be included within the Fund’s scope, with the service charge model applied consistently across tenure types.

See also: Q8-10 (non-domestic in neighbourhood programmes), Q66-68 (VCSE/community energy)

Q12: Do you agree with the proposed list of groups that the Warm Homes Fund may support and are there any other groups which should be supported?

WMCA broadly agrees with the proposed eligible groups. WMCA wishes to add one group that is not currently explicit in the proposed list and that is essential for the NETF model to operate:

Independent fund holding vehicles and programme aggregators. The NETF model requires DESNZ to deploy CDEL FT as equity directly into an independent fund holding vehicle – a Company Limited by Guarantee or similar structure – that then invests in neighbourhood SPVs. This fund holding vehicle is neither a local authority, a housing association, a community energy organisation, nor a private company in the conventional sense; it is a purpose-built programme aggregator. The vehicle is structured as a not-for-profit entity – any surplus is recycled into programme delivery rather than distributed to shareholders – but is professionally and commercially managed with independent governance, a specialist investment committee, and market-rate service contracts. This structure preserves public interest alignment while enabling the commercial rigour required to manage a programme of this scale. WMCA requests that the Fund’s eligible groups list explicitly include independent fund holding vehicles operating as neighbourhood programme aggregators, so that the legal basis for the preferred deployment structure is clear. Without this, there is a risk that the preferred structure – which is the deliberate answer to the balance sheet constraint DESNZ has itself identified – falls outside the Fund’s eligibility rules.

Combined authority delivery arms. Energy Capital and equivalent delivery arms within combined authorities are not simply local government departments – they are specialist energy transition delivery organisations with technical capability, institutional relationships, and strategic oversight that individual local authorities do not have. They should be explicitly recognised as eligible recipients of project development funding (as a top-slice of the CDEL FT capital) rather than being required to route all funding through the parent CA as a local authority.

YNYCA's LNZA programme, in developing its Outline Business Case for a Regional Operating Entity to deliver the York and North Yorkshire programme, has independently concluded that the optimal structure for a publicly-aligned but commercially-operated regional delivery function is an independent subsidiary of the combined authority – not a standard directorate and not a conventional private company. The OBC's analysis is that only a subsidiary structure combines the commercial agility, separate governance, and market-facing capability that managing a multi-hundred-million-pound programme pipeline requires, while maintaining the public interest alignment that distinguishes it from a purely commercial vehicle. WMCA notes that this conclusion, reached independently by a sister LNZA programme under the same DESNZ funding, applies by the same logic to Energy Capital. The implication for WMCA's own delivery architecture is therefore a natural inference from YNYCA's analysis. The implication for WMCA's own delivery architecture is that the legal form of Energy Capital may evolve from an in-house directorate into an arms-length delivery agency, a structure that preserves public interest governance while enabling the commercial agility and market-facing capability that managing a programme of this scale requires. WMCA requests that the WHF's eligible groups list and funding structures explicitly accommodate this evolution – from specialist directorate to independent subsidiary – so that delivery organisations are not locked into structures that may become unsuitable as programmes scale.

See also: Q31 (fund structure and eligible recipient design), Q32 (policy barriers including balance sheet treatment)

Section 2A: Owner-Occupiers

Q13: How do you think the Warm Homes Fund could best support owner-occupiers to invest in home upgrades?

WMCA's primary evidence on owner-occupier support concerns the role of the neighbourhood programme as a go-to-market architecture for the Boiler Upgrade Scheme (BUS), the WHF consumer loans scheme, and the comfort fee simultaneously. All three instruments face the same structural deployment problem when operated through individual household channels: fragmented demand, high per-unit delivery costs, low initiation rates, and no aggregation mechanism. The neighbourhood programme resolves all of these at once. We cross-reference to our detailed property-linked payment obligation response at Q17-20.

The BUS and consumer loans deployment problem

The BUS is a technology-led grant available to any property owner installing a qualifying heat pump or biomass boiler replacing a fossil fuel system. It has no income or creditworthiness threshold. Yet deployment is well below potential. The barriers are not eligibility but friction: finding a reputable installer in a fragmented market, navigating the application process, coordinating installation, and covering the residual cost above the grant. The consumer loans

scheme faces the same friction barriers plus the additional problem of high lender customer acquisition costs and the behavioural reluctance to initiate retrofit independently.

A neighbourhood programme fundamentally transforms the deployment economics of both instruments. By enrolling households collectively within a defined geography, it enables bulk BUS applications on behalf of the programme area, eliminating the per-household application burden; pre-qualifies consumer loan applicants simultaneously, reducing lender customer acquisition costs to near zero; provides coordinated installer procurement and delivery management; creates peer influence and social proof within the community; and offers all three payment routes – BUS plus cash, BUS plus consumer loan, or comfort fee – through a single programme, maximising aggregate participation.

Unit cost reduction: reducing what households need to fund

Neighbourhood-scale delivery also directly addresses affordability by reducing per-unit installation costs. Bulk procurement, shared civils and scaffolding, standardised designs, and supply chain efficiency all reduce the cost of each installation relative to the retail market. A lower per-unit cost means a smaller residual above the BUS grant, a smaller loan needed to cover that residual, and a lower service charge needed to service the comfort fee capital.

The comfort fee as the universal participation route

For owner-occupiers who cannot or will not take on a loan, the comfort fee provides a participation route with no upfront cost and no creditworthiness test. Provided the service charge is calibrated below the energy bill saving, the offer is economically rational for any owner-occupier regardless of their financial position. This makes 100% participation within a neighbourhood programme achievable in principle, not just participation by those who meet loan criteria or can afford the cash residual.

The origination mechanism and commercial rationale

For the consumer loans element, the SPV acts as originating intermediary: it identifies and pre-qualifies applicants, presents them to accredited lenders as an aggregated managed pipeline, and earns a one-time introducer fee from the lender for each qualified applicant originated. This makes programme-level loan origination commercially rational for lenders and provides the SPV with an additional revenue contribution alongside the programme management contribution from the household. For BUS, no introducer fee applies – the SPV's financial benefit is the programme management contribution and the efficiency gains from coordinated bulk delivery.

WMCA's view is that both the BUS and the consumer loans scheme will significantly underperform their deployment potential if operated solely through individual household channels. This concern is particularly acute in the West Midlands, where the region's older housing stock, higher concentrations of fuel poverty, and lower average household incomes mean that the individual navigation burden of a technology-led grant scheme falls heaviest on the households least equipped to manage it – reinforcing existing regional inequalities rather than addressing them. A collective enrolment mechanism enabling SPV-level BUS applications

and loan origination does not currently exist and would need to be developed. DESNZ should treat this as a priority design task alongside the NETF fund structure. Energiesprong Comfort Plan research (DESNZ-funded, April 2025) confirms that the neighbourhood model only becomes financially viable at scale, requiring a minimum of approximately 400 enrolled homes cumulatively.

See also: Q15 (*loan scheme design for new market entrants*), Q16 (*loan attributes*), Q17-20 (*property-linked payment obligation*), Q24-27 (*comfort fee / revenue sharing*), Q29-31 (*area-based investment funds as origination vehicle*)

Q14: How do you think lenders currently use Energy Performance Certificate ratings and energy costs in lending decisions?

WMCA does not hold direct evidence on how financial institutions currently use EPCs in lending decisions. However, EPC improvement through neighbourhood retrofit directly benefits lenders' mortgage portfolio quality – this is developed as an argument for lender financial participation in programme costs at Q3 and Q20.

See also: Q3 (*lender benefit argument*), Q20 (*mortgage lender engagement*)

Q15: How could the loans scheme be designed to encourage new products or entrants into the market?

The most powerful design intervention to encourage new lender entrants is to create a bulk origination channel that eliminates the customer acquisition cost problem. New entrants face disproportionate customer acquisition costs relative to established players. A neighbourhood programme that pre-qualifies applicants and presents them to lenders as an aggregated, managed pipeline removes the primary barrier to entry for specialist green finance providers and challenger banks.

Critically, the neighbourhood programme does not merely reduce costs for existing lenders – it creates a larger addressable market. By removing the complexity barrier that suppresses demand in the first place, the programme generates participation from households who would not have initiated retrofit independently. More households participating means a larger loan origination pipeline; a larger pipeline justifies more lenders entering with differentiated products; more lenders competing improves terms for all participants. The market-creation argument is stronger than the cost-reduction argument: the neighbourhood programme does not just make the existing market more efficient, it expands the market itself.

The introducer fee model – where the SPV earns a fee from an accredited lender for each qualified applicant originated through the neighbourhood programme – provides the financial mechanism that makes this arrangement commercially rational for both parties. The SPV has a direct financial incentive to originate across all payment routes, and lenders have a direct

financial incentive to engage with the SPV as an origination channel rather than building their own customer acquisition infrastructure.

DESNZ should design a mechanism for programme-level loan origination – analogous to procurement frameworks used in social housing – that allows neighbourhood delivery vehicles to act as origination partners for accredited lenders.

See also: Q13 (*neighbourhood as origination channel for BUS and consumer loans*), Q29-31 (*area-based investment funds*)

Q16: What loan attributes would be most valuable to expand in the market?

From WMCA's programme experience, the attributes that most significantly constrain uptake are:

- **Tenor.** Retrofit assets have 20-30 year lives. Consumer loans with 5-10 year terms create repayment obligations that exceed early-stage energy bill savings, making the proposition unattractive. Longer-tenor products, enabled by the WHF's patient capital, are essential.
- **Asset-linked rather than personal credit-based assessment.** Personal creditworthiness assessments systematically exclude fuel-poor households who would benefit most. A move toward asset-based or property-linked assessment (see Q17-20) would significantly expand eligibility for the households where retrofit need is greatest.
- **Bundled maintenance.** A loan that funds installation without covering ongoing maintenance creates a risk of asset failure and consumer detriment. Consumer loans bundled with maintenance and replacement obligations (as in the SPV maintenance contract model available alongside either payment route) are more attractive and reduce long-term risk for both household and lender.

See also: Q17-20 (*property-linked payment obligation as the most promising near-term mechanism for owner-occupiers without savings or credit*), Q24-27 (*comfort fee model*)

Q17: Would Property Linked Finance support the draft Warm Homes Fund aims?

An important distinction: property-linked finance versus a property-linked payment obligation

"Property Linked Finance" as typically understood – and as implemented in the US PACE (Property Assessed Clean Energy) model – involves a debt charge secured on the property. The household takes on debt; the lender holds a charge that competes with the mortgage for priority in enforcement. This model has not succeeded at scale in the US residential market for two principal reasons: mortgage lender resistance to a charge that subordinates their security; and the risk of enforcement action against households who cannot service the charge. These failures are not specific to the US context – any debt-based property-linked instrument faces the same structural problems, as set out at Q1.

The NETF model achieves the same goal as PLF – locking future householders into a financial contribution and enabling longer-tenor financing by spreading the obligation across multiple ownership periods – without the debt charge on the property. Under the Local Land Charge mechanism available under Section 1(1)(e) of the Local Land Charges Act 1975, a payment obligation – structured as a service charge rather than a debt repayment – can be attached to a property and travel with it on sale. Crucially, the financing sits at SPV level, not at household level. The household does not take on debt; the SPV, funded by public equity and private institutional finance, owns and operates the assets and recovers its costs through the service charge. The NETF model is therefore a **property-linked payment obligation**, not property-linked finance.

This distinction matters for four reasons:

- **Consumer protection:** A service charge for an ongoing energy service can be structured with price caps, performance guarantees, and exit provisions that a loan cannot easily incorporate.
- **Mortgage lender treatment:** A Local Land Charge for a service payment is materially less threatening to a mortgage lender's security position than a competing debt charge. Where the payment obligation is calibrated below the energy bill saving, the lender's credit risk is actively reduced (see Q3 and Q20).
- **Fiscal treatment:** Because the financing sits at SPV level rather than household level, the FT capital is deployed into a commercial entity capable of generating returns – not into a household debt instrument.
- **Scalability:** The Local Land Charge pathway is available via Ministerial order under the 1975 Act without primary legislation.

Legal analysis on the property-linked payment mechanism was provided by Burges Salmon LLP. This analysis was originally prepared by Living Places with legal support from Burges Salmon LLP to inform an Outline Business Case for Net Zero Neighbourhood Demonstrators in Bristol, funded by Innovate UK as part of the Thriving Places/Net Zero Living portfolio, and has subsequently been applied to the WMCA programme. Soft testing with two high-street mortgage lenders found the mechanism potentially acceptable in principle – an important early signal, though we are careful to note that this is not a confirmed position and full lender engagement remains required.

The Ministerial order enabling the mechanism could be progressed within the current Parliament if the pathway is prioritised alongside the NETF demonstrator. The demonstrator is specifically designed to generate the evidence base – on consumer acceptance, lender treatment, enforceability, and interaction with property transactions – that national roll-out would require.

See also: Q18-20 (*need, government finance role, policy barriers*); Q3 (*lender benefit argument*); Q29-31 (*NETF as the delivery vehicle for the demonstrator*)

Q18: Is there a need for finance here?

Yes, but the framing of the need requires precision. The need is not primarily for a debt product that households can draw down individually. As set out in Q1 and Q3, individual household debt instruments face structural demand constraints that limit their effectiveness as the primary deployment vehicle. The need is for:

- **An institutional vehicle** that can deploy capital at neighbourhood scale, own and operate assets under a performance guarantee, and recover costs through a property-linked service charge – removing the need for individual households to take on debt at all.
- **A legal mechanism** (the Local Land Charge under the 1975 Act) that allows the service charge to travel with the property on sale, resolving the tenure mismatch problem for owner-occupiers who would disinvest before recouping costs.
- **A demonstrator programme** that generates the evidence – on consumer acceptance, lender treatment, property transaction mechanics, and collection – required before the mechanism can be used at national scale.

The private sector has not filled this gap because: no standardised mechanism exists; the legal pathway requires government enabling action; lender appetite requires regulatory clarity that government must provide; and the transaction costs of establishing an SPV-level financing structure are prohibitive for individual projects at the scale currently being attempted. These are structural gaps that require government action to resolve, not temporary market inefficiencies that private capital will fill given time.

Q19: How could government finance address this gap?

Government's role in financing this gap is twofold:

1. **Provide cornerstone investment:** Deploy CDEL FT as equity into the NETF fund holding vehicle, capitalising the neighbourhood SPVs that own and operate assets and deploy the Local Land Charge payment mechanism within each programme area. Government earns a return through equity distributions as service charge revenues mature. Returns are concessional in the base case, consistent with the FTCF's provision for below-gilt returns where market failure is being addressed, with the potential to earn above-gilt returns in the upside case as the programme matures and economies of scale are demonstrated.
2. **Facilitate lender engagement:** Work with UK Finance and individual mortgage providers to establish the regulatory treatment of Local Land Charge obligations in mortgage valuations and lending decisions. Where the payment obligation reduces rather than increases household credit risk – which is the case where the bill saving exceeds the charge – government should make the case explicitly to lenders that programme participation is in their financial interest, and explore whether lenders should contribute financially to programme costs (see Q20).

The NETF structure provides the vehicle for both elements: it originates neighbourhood programmes, manages consumer enrolment, deploys the Local Land Charge within a structured governance framework, and generates the evidence base for national roll-out. The legislative enabling action required to establish the Local Land Charge instrument is addressed at Q20.

Q20: What are the wider policy barriers to PLF?

Four policy barriers require resolution:

1. **Legislative pathway.** The Ministerial order under the Local Land Charges Act 1975 requires MHCLG engagement alongside DESNZ, as the 1975 Act sits within MHCLG's policy domain. WMCA requests that DESNZ facilitate early cross-departmental engagement on this pathway as a priority.
2. **Existing mortgage providers.** The Local Land Charge mechanism's interaction with existing mortgage lending requires a formal government position and active UK Finance engagement. Where the programme is designed so that the payment obligation is below the energy bill saving, the existing mortgage lender is a net financial beneficiary: their borrower's disposable income increases; their collateral value improves as EPC ratings rise; their credit risk from energy cost stress is reduced; and their portfolio EPC mix improves. Government should engage existing mortgage lenders not just to secure their tolerance of the mechanism but to explore their financial contribution to programme costs. This argument applies most strongly where bill savings exceed payment obligations; in fuel-poor areas where comfort upgrade rather than bill reduction dominates, the lender benefit is correspondingly less direct.
3. **Consumer loan providers.** The WHF consumer loans scheme operates through separate loan providers who interact with the programme through the SPV's origination and introducer role. The policy barrier here is the absence of a collective enrolment mechanism that allows the SPV to act as an accredited origination partner. Government should design this mechanism, as set out at Q13 and Q15.
4. **Consumer protection framework and benefit system interaction.** The service charge instrument requires a robust consumer protection framework: independent affordability assessment, mandatory disclosure, performance guarantee standards, and clear rights on property transfer. Service charges may also interact with Housing Benefit and Universal Credit calculations; DWP engagement is required to ensure the mechanism does not inadvertently reduce net income for benefit recipients in mixed-tenure neighbourhood programmes.

Section 2A: Landlords and Tenants

Q21: What are the barriers preventing private landlords from investing in low carbon technologies?

WMCA's primary evidence on private rented sector (PRS) barriers comes from the NETF programme design rather than standalone PRS finance analysis. The classic landlord-tenant split incentive is most acute in the PRS: the landlord would bear the capital cost of retrofit but the tenant captures the energy bill saving, giving the landlord no direct financial return from investment. This has historically been the primary structural barrier to PRS retrofit.

The NETF model resolves this barrier by removing the landlord from the investment chain entirely. The fund invests directly with the landlord's consent, and the service obligation flows from the tenant to the SPV. The landlord bears no capital cost; their benefit is improved property value and EPC rating. A matched contribution from the landlord is a design option under exploration but is not a requirement.

A further structural barrier is that even where landlords are willing to invest, tenants may not remain in the property long enough to justify the landlord's investment horizon. The NETF's fund-invests-directly model resolves this too – the investment decision is made by the fund, not by the landlord, and the service obligation travels with the property through tenancy changes.

WMCA also proposes a rent freeze or cap period as a condition of fund investment in PRS properties. Without this, landlords could immediately increase rents following delivery, eliminating the net financial benefit to the tenant. The enforceability mechanism – potentially carried within the Local Land Charge instrument – is a design question for the demonstrator to test.

See also: Q4 (full tenure mechanics), Q17-20 (property-linked payment obligation), Q22 (social housing barriers)

Q22: What are the barriers preventing social landlords from investing in low carbon technologies?

Social housing presents a different set of barriers from the PRS. The primary mechanisms for social landlord retrofit are Social Housing Fund grant and matched capital funding from the RP's own resources. The barriers to greater deployment include: SHF grant competition and timing uncertainty; RP balance sheet constraints limiting matched funding capacity; limited understanding among some providers of how energy improvements reduce long-term housing management costs and increase tenant satisfaction and retention; and the regulatory environment governing service charges and rent standards.

The NETF model addresses these barriers through parallel co-investment rather than replacing RP investment. The RP deploys SHF grant and matched funding for the elements of the retrofit programme that grant supports; the fund co-invests in the same neighbourhood programme

alongside the RP through coordinated procurement, enabling the programme to go deeper than grant alone can fund. The two capital streams sit in separate structures – the RP’s capital does not flow into the SPV – but the coordinated procurement captures the efficiency gains of neighbourhood-scale delivery for both.

The comfort fee from the SPV’s installed assets flows to the SPV rather than the RP, providing the income stream that services the fund’s capital. Where SHF and RP matched funding is deployed alongside the fund’s equity, the fund’s capital contribution per property is proportionally lower, and the comfort fee can be set at a structurally lower level for social tenants as a natural consequence – not a discretionary subsidy. An additional fuel-poor discount may still be needed for overheated homes.

The key regulatory barrier requiring resolution is clarity from the Regulator of Social Housing on how a fund SPV’s service charge in a parallel co-investment structure is treated under the rent standard and service charge guidance. Without this clarity, RSLs face uncertainty about whether participating in a co-investment programme would affect their regulatory compliance position.

See also: Q4 (full tenure mechanics), Q27 (social housing regulatory framework barrier)

Q23: What is the extent to which the Warm Homes Fund could support additional quality, accessibility or sustainability measures in social and affordable housing?

WMCA does not hold direct evidence on the specific financing barriers and opportunities for above-minimum standards in new build social and affordable housing. See Q7 for the broader new build note.

Section 2B: Revenue and Savings Sharing

Q24: Would revenue and savings sharing models support the draft Warm Homes Fund aims?

Revenue and savings sharing models are not simply one useful feature of the NETF – they are structurally necessary for a mass market retrofit programme. The argument established in Q1 and Q3 shows that for the majority of the households where retrofit need is greatest, individual debt instruments leave them net worse off. The only alternatives are grant (insufficient at scale to reach all households) or a payment mechanism that keeps households net better off without requiring them to take on debt. The comfort fee is that mechanism. Without it, a mass market programme is not achievable: the able-to-pay market can self-fund or borrow, but the remaining majority – for whom the economics of debt do not work – can only participate through a revenue and savings sharing model. This is why an NETF-like structure is, in WMCA’s view, not just a preferred option but the only model capable of achieving the WHF’s objectives at scale.

The comfort fee – a service charge in respect of the low-carbon energy infrastructure installed in the property, calibrated to the household’s pre-retrofit energy bill – is the primary revenue and savings sharing model within the NETF. The SPV owns and maintains assets; the household pays for access to the infrastructure rather than repaying a loan. It also provides the SPV with a predictable, long-term revenue stream that underpins the financial model and supports private debt co-investment.

The model addresses the landlord-tenant split incentive across all tenures not by making the landlord the investor but by removing the landlord from the investment chain. The fund invests directly; the service obligation flows from the occupant to the SPV; the landlord’s benefit is improved property value and EPC rating without capital outlay. The split incentive is dissolved rather than resolved.

Benefits can be realised at scale within the current Parliament, but only through area-based delivery: the Energiesprong Comfort Plan research (DESNZ-funded, April 2025) shows the model only becomes financially viable with a minimum of approximately 400 enrolled homes cumulatively. This threshold is achievable through neighbourhood programmes but not through individual household marketing.

Risks include: consumer acceptance of a service charge model; revenue uncertainty in fuel-poor areas where comfort upgrades rather than bill savings dominate; and the need for robust consumer protection and transparent billing. These risks are all manageable through careful programme design and are addressed in the NETF’s consumer offer architecture.

See also: Q1 and Q3 (impoverishment argument establishing why revenue sharing is necessary), Q4 (tenure mechanics), Q13 (comfort fee as universal participation route), Q25-27 (need, government finance role, policy barriers), Q29-31 (NETF as delivery vehicle for revenue sharing at scale)

Q25: Is there a need for finance here?

Yes. The comfort fee model requires upfront capital to fund asset installation before the service charge revenue stream matures. Individual households cannot fund this upfront cost, and private lenders will not originate against an unproven service charge revenue stream without a public equity anchor. The need for government finance is structural – the comfort fee model cannot reach the scale at which it becomes financially viable without public capital to fund the initial cohort.

This need is structural today but reduces over time. As the comfort fee income track record is established through the demonstrator programme, private institutional debt becomes available to refinance the public equity – progressively reducing the call on government capital for subsequent programmes. The same Phase 1 to Phase 3 capital evolution described at Q3 applies here: the government’s role shifts from primary equity provider to governance

and standard-setting as private capital confidence is established. The objective is not a permanent government subsidy but a time-limited market-making intervention.

Q26: How could government finance address this gap?

The NETF provides the mechanism: CDEL FT deployed as patient equity capital into the fund holding vehicle, which capitalises neighbourhood SPVs that originate, deliver, and operate the comfort fee model within each programme area. The equity capital funds the upfront installation cost; the service charge revenue services the capital structure over time.

The key design point is that government finance must be deployed at fund level rather than SPV level: a fund structure allows capital to be efficiently redeployed across multiple neighbourhood programmes as early SPVs begin returning income, creates the governance and standards that allow multiple capital sources to participate, and generates the aggregated evidence base for national replication. As comfort fee income streams mature and are demonstrated to private investors, the fund can attract private debt co-investment alongside the public equity, reducing the public capital required per subsequent programme.

Government earns a return through equity distributions from SPVs as service charge revenues mature, consistent with the FTFCF's provision for below-gilt returns in a first-of-kind national demonstration, with the potential for above-gilt returns in the upside case.

Q27: What are the wider policy barriers to revenue and savings sharing?

Three policy barriers are most significant:

1. **Consumer protection regulation.** Service charges for retrofit assets require a clear regulatory framework governing minimum standards, billing transparency, and dispute resolution. The FCA's current framework for consumer credit does not straightforwardly apply to comfort fee structures. DESNZ should work with the FCA to establish a fit-for-purpose regulatory framework.
2. **Interaction with benefit systems.** Service charges may interact with Housing Benefit and Universal Credit calculations in ways that affect low-income households disproportionately. DESNZ should engage DWP to ensure that comfort fee structures do not inadvertently reduce net income for benefit recipients.
3. **Social housing regulatory framework.** For social landlords, service charge structures interact with the Regulator of Social Housing's rent standard and service charge guidance. Clarity from RSH on the treatment of retrofit-related service charges would accelerate adoption by social housing providers. In particular, clarity is needed on how the RP's SHF and matched funding investment alongside a fund SPV is treated under this guidance, given that the fund's service charge and the RP's own investment are structurally separate.

Q28: Are there any other considerations regarding housing associations and other registered providers that you would like to highlight?

Whilst the WMCA works very closely with partner housing associations, the WMCA does not hold direct evidence on housing association ownership structure variations beyond the parallel co-investment model described at Q22. The neighbourhood programme model is designed to accommodate different Registered Provider ownership structures; the relevant barrier is typically a balance sheet constraint rather than ownership structure per se.

See also: Q22 (social housing barriers), Q27 (social housing regulatory framework)

Section 2C: Local Government

Q29: Would area-based investment funds support the draft Warm Homes Fund aims?

Yes, and WMCA's view, based on detailed programme design and financial modelling, is that area-based investment funds are the most effective deployment vehicle for the WHF's £3.3bn innovative finance pot. The case rests on five structural advantages:

- **Scale creation.** Individual retrofit projects are too small, too heterogeneous, and too early-stage to attract institutional capital. A neighbourhood fund creates projects of sufficient scale (typically £50m–£300m) with standardised structures, documented risk profiles, and replicable archetypes. This transforms a fragmented collection of grant-dependent household interventions into an investable pipeline where institutional debt can sit alongside public equity.
- **System benefits capture.** Several revenue streams are only accessible or significantly enhanced at neighbourhood scale. Collective neighbourhood-scale flexibility generates greater value for Distribution System Operator (DSO) flexibility markets than individual households acting alone – through aggregated dispatch, firm capacity commitments, and coordinated smart asset management. Distribution Network Operator (DNO) network reinforcement avoidance payments – where coordinated neighbourhood electrification enables the DNO to defer or reduce planned network investment – are genuinely unavailable to individual households. Shared asset economics (community battery serving multiple homes, shared thermal storage, communal heat pump solutions) deliver the same energy outcomes at materially lower per-unit capital cost. These revenues are material to the financial model and reinforce the case for neighbourhood-scale delivery.
- **Supply chain cost reduction.** Aggregated, programmatic demand gives the supply chain the incentive and security to invest in efficiency: workforce training and retention, standardised designs, bulk procurement, and competition on unit cost. UKERC and Universities of Edinburgh and Imperial (2024) confirm that UK heat pump costs have not fallen materially over the past decade, attributing this to fragmented demand. A neighbourhood programme creates the demand conditions to trigger a supply chain response.

- **Multi-market failure resolution.** Area-based delivery simultaneously addresses all five market failures identified in Q2: information asymmetry, coordination failure, split incentives, thin markets, and risk concentration. No other instrument addresses all five simultaneously.
- **Speed and institutional readiness.** WMCA has the institutional platform – Energy Capital, the Integrated Settlement Buildings Retrofit Pilot, and an existing Net Zero Neighbourhood programme pipeline including Castle Vale in Birmingham and Brockmoor in Dudley – to absorb FT capital quickly without requiring new institutional creation from scratch. Detailed techno-economic and investment modelling is already complete. Pilot SPVs are ready to form.

Benefits could be realised within the current Parliament. The West Midlands programme has the institutional infrastructure, project pipeline and delivery relationships in place to deploy capital quickly once a commitment is confirmed. WMCA stands ready to move rapidly to deployment and would work with DESNZ to identify the earliest viable capital deployment window within the WHF programme timetable.

Risks include ONS classification of the fund vehicle (addressed at Q32), consumer uptake uncertainty (addressed through the national demonstration design), and pipeline readiness (addressed by the existing programme infrastructure). None of these risks is programme-stopping; all require active engagement between WMCA and DESNZ to manage.

The national NETF is the vehicle through which WMCA proposes to answer this question operationally. It is designed as a national fund with regional allocations and delivery – a single investment architecture that any qualifying region can access, with National Demonstrator Allocations for regions with the delivery capability and pipeline to generate the key proof points on behalf of the wider programme, and an Open Allocation for other regions as readiness develops.

See also: Q1-3 (strategic case and equity vs debt), Q30 (need and market failure), Q31 (fund structure), Q32 (policy barriers), Q33-36 (blended finance)

Q30: Is there a need for finance here, and what are the barriers that prevent the private sector from filling it?

The market failure is structural and well-evidenced. Private capital does not originate neighbourhood retrofit SPVs because:

- Transaction costs are prohibitive relative to project size at early stage. The gap between a neighbourhood area identified as suitable for retrofit and a project capable of receiving institutional investment is substantial: feasibility, community engagement, stakeholder alignment, technical design, and financial structuring are all required before capital can be deployed.
- First-loss equity risk in a first-of-kind model is beyond private risk appetite without a public anchor. Investors need to see real, investment-ready projects before committing capital; creating investment-ready projects requires upstream development capital that private actors will not deploy without a committed fund to receive the resulting projects.

- Revenue streams are not yet proven at the scale and tenor required for private debt underwriting. Comfort fee income, DSO flexibility revenues, and property-linked service charges all require a track record that can only be built through a publicly anchored demonstrator.
- The pipeline is too fragmented and too early-stage. Individual neighbourhood programmes are not replicable in the way institutional investors require. A fund structure with standardised governance, legal templates, and procurement frameworks is the prerequisite for replicability – and that fund structure requires a public anchor to establish.

These are genuine market failures, not gaps that private capital would fill given time. They require public capital to resolve the coordination problem and absorb early-stage risk.

A critical point on pipeline readiness: area-based programmes are perpetually 12–18 months away from needing capital funding until they have capital funding. The pipeline readiness objection is circular; commitment is what unlocks readiness, not the other way around. The West Midlands programme has reached an inflection point where institutional knowledge, community relationships, and supply chain partnerships are at risk of dissipating without a confirmed capital commitment.

Q31: How could government finance address this gap?

WMCA serves a regional population of approximately 1.2 million households across seven metropolitan boroughs. The section below sets out how government finance should be structured to address the gap identified in Q30.

The NETF structure provides a specific, worked answer. DESNZ would deploy CDEL FT as equity into an independent fund holding vehicle (Fund TopCo), with WMCA acting as programme sponsor rather than equity investor, keeping capital off WMCA's balance sheet and within a structure designed for repayable deployment.

The fund structure:

- **Fund TopCo** (Company Limited by Guarantee): independent governance, investment committee, no ministerial direction over specific investments. Receives CDEL FT equity from DESNZ. Potential members: WMCA, NWF, Great British Energy (GBE) (as co-investors and governance participants).
- **Operating Co**: project development services, managing the pipeline development facility function currently performed by Energy Capital.
- **Regional HoldCo(s)**: regional equity holding vehicles that own Project SPVs within each neighbourhood programme area.
- **Project SPVs**: contractual delivery entities that receive capital, contract with the supply chain, capture project revenues, service the capital structure, and return surplus to communities.

WMCA is seeking a National Demonstrator Allocation of £340m within the national NETF to equity-capitalise the West Midlands programme allocation. This would fund ten neighbourhood delivery programmes across the West Midlands over the first five-year phase, each ramping to deliver approximately 2,000 homes. Total gross capital programme: approximately £640m, comprising £210m existing grant funding (Warm Homes: Social Housing Fund, Warm Homes: Local Grant, Boiler Upgrade Scheme), £90m leveraged private debt, and £340m CDEL FT equity. These figures are illustrative orders of magnitude pending further financial modelling.

The Coalition of Place emerged organically from dissemination of WMCA's LNZA work – other regions engaged with DESNZ's own funded programme and came forward independently when the Call for Evidence was announced. Each committing to develop regional programme pipelines in which the national NETF would invest, the Coalition collectively represents the demand for National Demonstrator Allocations and Open Allocation funding. Under a full Coalition programme, the combined allocation from the £3.3bn pot could approach £1–2bn, deploying DESNZ's LNZA investment across multiple regional typologies simultaneously and establishing neighbourhood retrofit as a genuine asset class at national scale.

This is not a request for permanent public capital. The same capital evolution trajectory described at Q3 applies to the fund structure: Phase 1 deploys public equity as the anchor alongside limited private debt; Phase 2 introduces growing private debt leverage as SPV track records are established; Phase 3 sees private sector patient equity alongside or refinancing public equity, with CDEL FT recycled to new programmes and new regions. Public involvement progressively shifts from capital provision to governance and standard-setting.

The model also creates meaningful integration between the WHF's three innovative finance instruments. The £3.3bn equity pot capitalises the NETF fund. The £2bn consumer loans programme is available as the third consumer payment route within each neighbourhood SPV, with the programme acting as the origination and management channel. The £600m low-income allocation enables RSLs to participate alongside Social Housing Fund grant. None of these three instruments is currently designed to work together; the NETF structure makes them do so.

Note on financing alongside existing local investment funds: WMCA's Integrated Settlement includes the Buildings Retrofit Pilot as a live delivery pillar. The NETF does not replace or duplicate this, it provides the investment-grade fund structure that allows the Pilot's project pipeline to access private institutional capital rather than depending solely on public grant. The two instruments are complementary by design.

See also: Q33-35 (blended finance), Q1-3 (equity vs debt), Q70 (national demonstration and multi-region scaling)

Q32: What are the wider policy barriers to area-based investment funds?

Four policy barriers require resolution, of which the second is the most significant and the least resolved.

1. Balance sheet treatment and FT recipient eligibility

DESNZ's own CfE acknowledges that local and strategic authorities cannot be direct recipients of FT without balance sheet impact. The independent fund holding vehicle with WMCA as programme sponsor rather than equity investor is the structural answer to this constraint. WMCA proposes that DESNZ consider delegating FT deployment to the National Wealth Fund (NWF), which would then act as the equity investor in the fund holding vehicle. NWF already deploys FT capital and has the institutional capability and commercial governance to hold equity in an independent fund vehicle in a way that is more clearly a commercial transaction than direct DESNZ deployment. This approach may also offer a cleaner ONS treatment by placing the equity investment within an institution already designed for commercial capital deployment. This requires DESNZ and NWF engagement to confirm whether NWF's mandate and current capital allocation could accommodate this structure.

2. ONS sector classification – the central unresolved question

This is the most significant policy barrier and the one on which WMCA seeks the most active engagement from DESNZ. We set out the issue in full because we believe it requires explicit ministerial and Treasury consideration, not resolution at official level alone.

The Financial Transaction Control Framework confirms that FTs are recognised in the National Accounts as transactions between the public sector and the private sector or rest of the world. Where a transaction is between two parts of the public sector, it consolidates out in the National Accounts, meaning no net financial asset is recognised and the fiscal benefit of using FT rather than grant is substantially diminished or eliminated. The risk for the NETF fund vehicle is therefore not simply about which sub-sector of the public sector it is classified to, but whether it is classified to the public sector at all.

WMCA understands there are two distinct classification risks. The first is that the fund vehicle is classified as a Central Government body, which could be the case if government effectively controls investment decisions, holds majority ownership, or if the fund does not operate as a market-producing body. Under Central Government classification, the transaction could consolidate into central government accounts, removing the FT fiscal treatment and potentially meaning the capital does not qualify as an FT in National Accounts terms at all. The second is that even a Public Sector Corporation classification may still result in the transaction consolidating out of the broader public sector accounts, depending on how the Eurostat guidance is applied.

WMCA's position is that a well-designed fund vehicle, with genuine independent governance, an investment committee free from ministerial direction, commercial pricing of services, and third-party co-investment from the outset, could be compatible with Public Sector Corporation

classification. We use “could be compatible” deliberately: this is not a guaranteed outcome and depends on ONS case-by-case judgment applying Eurostat guidance. Third-party co-investment is the single most powerful structural lever.

An alternative structural approach, limiting the CDEL FT equity stake to 49% and using a National Wealth Fund guarantee to attract a private sector equity co-investor at 51%, may offer a route to cleaner ONS treatment on the ownership dimension. WMCA is actively exploring with potential private sector equity participants whether this structure would attract genuine co-investment and on what terms. WMCA already has direct relationships with several large UK asset managers and does not require DESNZ introductions for this purpose (for example, please see the attached letter of support for the WMCA submission to the WHF consultation from Legal and General). Our current assessment is that the structure is uncertain: a guarantee may or may not be sufficient to attract private equity into an unproven model, and the ONS may assess effective government risk share as exceeding 50% even with a nominal 49% equity stake if the guarantee effectively absorbs the majority of loss risk. WMCA requests that DESNZ engage NWF on the terms and conditions of any guarantee instrument that could support this structure, and that Treasury and ONS clarification is sought on whether effective risk share rather than nominal ownership is the determining factor.

The honest framing: if a conservative approach to ONS classification risk is taken, and only structures with high confidence of private sector classification are pursued, the result is likely to be either no fund at all or a fund that can only invest in well-established, commercially proven models, which area-based retrofit is not. Resolving this tension requires ministerial and Treasury risk appetite. WMCA requests that DESNZ facilitate early and informal ONS pre-engagement to clarify the range of plausible classification outcomes before formal fund structuring proceeds.

On the interaction between ONS classification and FT eligibility: WMCA understands there is a question about whether, if the fund vehicle is classified as public sector, the deployment of CDEL FT capital into it qualifies as an FT at all in National Accounts terms. WMCA requests DESNZ clarification on this point as a priority, as the answer materially affects the design logic for the fund vehicle.

3. Payment mechanism enabling frameworks

Two distinct policy enabling actions are required. First, the Ministerial order under the Local Land Charges Act 1975 (addressed at Q20) enables the property-linked payment obligation mechanism specifically for owner-occupiers, allowing the service charge obligation to travel with the property on sale. Second, the consumer protection regulatory framework for service charges (FCA engagement, DWP benefit interaction, RSH guidance) is required to enable the comfort fee model across all tenures; social housing, PRS, and owner-occupier. The comfort fee is the primary payment mechanism across all tenures in the NETF model. Both enabling frameworks are foundational to the programme and require active cross-departmental coordination.

4. BUS collective enrolment

The Boiler Upgrade Scheme currently has no mechanism for SPV-level bulk applications. A collective enrolment pathway through neighbourhood delivery vehicles would significantly improve BUS deployment rates and reduce per-unit administrative costs. DESNZ should develop this mechanism in parallel with the NETF design process and treat it as a priority alongside the fund structure design.

Section 2C: Blended Finance

Q33: Would blended financing support the draft Warm Homes Fund aims?

Yes. The NETF is explicitly a blended finance model. It is also designed to be compatible with the Local Power Plan (LPP); Great British Energy's programme for community and local energy investment. Where a neighbourhood programme includes rooftop solar, community batteries or other generation assets, LPP capital (GBE grants, loans and Pillar D stewardship equity) is a potential co-investor alongside WHF capital, allowing both programmes' objectives to be served simultaneously. A note on the structure of this submission: local equity funds (Q29-32), revenue and savings sharing models (Q24-27), and blended finance (Q33-36) are addressed in separate sections because the CfE poses them as separate questions. In practice they are interdependent features of the same NETF architecture and are not separable levers. A neighbourhood programme requires all three simultaneously to function: the equity fund provides the capital; the comfort fee provides the income stream that services it; the blended structure enables private debt and community co-investment alongside the public equity. Readers of individual sections should bear this interdependence in mind.

The capital stack comprises four layers:

- **Grant and matched capital layer:** Warm Homes: Social Housing Fund, Warm Homes: Local Grant, Boiler Upgrade Scheme, and the consolidated low-income successor programme committed in the Warm Homes Plan from 2027/28; plus matched capital contributions from Registered Providers, drawn from Housing Revenue Accounts and planned maintenance budgets, deployed alongside SHF grant. Covers deepest fabric improvements, social housing, and fuel-poor households. SHF element not repayable; RP matched funding is provider capital.
- **Public equity layer (CDEL FT, concessional):** Patient, first-loss public capital. Returns are concessional in the base case (below gilt yield); above gilt in the upside case. This is the instrument the £3.3bn WHF innovative finance pot is designed for.
- **Private debt layer (leveraged):** Institutional debt, potentially supported by NWF guarantee, sitting above the equity layer. Limited initial leverage in the base case; approaching 1:1 in the upside case.

- **Community equity (growing over time):** Direct community equity stakes in individual neighbourhood SPVs. While modest in financial terms relative to the overall capital stack, community equity stakes play a crucial role in the community engagement and resident buy-in strategy: giving residents a genuine ownership interest changes the psychology of participation and strengthens programme legitimacy. Community equity grows as the model matures and revenue streams are proven.

The capital evolution trajectory (see also Q3):

- **Phase 1:** Grant base layer plus public equity anchor, limited private debt, small community capital stakes.
- **Phase 2:** Growing private debt leverage as revenue streams are proven; private institutional co-investment begins to reduce the per-programme call on public equity.
- **Phase 3:** Private sector patient equity alongside or refinancing public equity; public equity recycled to new programmes and new regions; community equity stakes grow as assets mature.

This trajectory demonstrates the self-sustaining logic of the model: public capital is not consumed but recycled, and its role progressively diminishes as private capital confidence in the model is established.

The blended finance model also aligns the Warm Homes Plan and Local Power Plan at the point of delivery. Neighbourhood programmes that include rooftop solar, community batteries, and grid flexibility assets alongside fabric retrofit serve both programmes' objectives simultaneously. GBE Pillar D (Stewardship Equity, £300m, 6-9% IRR target) is a potential co-investor in neighbourhood SPVs where generation and Smart Local Energy System (SLES) components are included alongside retrofit. WMCA has signed a Memorandum of Understanding with GBE and is exploring how the NETF model could align with GBE's investment objectives. This is an option to explore as the fund design develops rather than a prerequisite for the programme.

See also: Q29-32 (area-based investment funds), Q3 (capital evolution trajectory), Q34-36 (need, government role, policy barriers), Q70 (national demonstration)

Q34: Is there a need for finance here?

Yes. The same structural argument applies as at Q30. Without a public equity anchor, private debt will not participate at scale. The blended fund model is the only structure that makes neighbourhood retrofit investable on acceptable terms. The private sector market for neighbourhood-scale blended retrofit investment does not yet exist; it requires a first-of-kind public demonstration to establish the risk profile, governance standards, and investor track record that private capital requires before participating.

See also: Q30 (detailed market failure analysis), Q29 (structural advantages of area-based funds)

Q35: How could government finance address this gap?

The answer is the same NETF structure described at Q31. Government's specific role in the blended structure is:

- Deploy CDEL FT as equity into the Fund TopCo, establishing the first-loss layer that enables private debt participation.
- Support NWF guarantee provision for private institutional debt co-investors (a separate NWF facility, not a use of FT capital as FT cannot be used as guarantee).
- Facilitate GBE Pillar D co-investment in SPVs where generation and SLES components are included.
- Enable SPV-level bulk BUS applications and consumer loan origination through neighbourhood delivery vehicles, requiring a collective enrolment mechanism to be developed by DESNZ as a priority alongside the fund design process.

Government earns a return through equity distributions from SPVs as the programme matures, consistent with the FT Control Framework.

See also: Q31 (fund structure), Q3 (return trajectory), Q32 (ONS classification)

Q36: What are the wider policy barriers to blended finance?

The same barriers as Q32 apply; balance sheet treatment, ONS classification, payment mechanism enabling frameworks, and BUS collective enrolment. One additional consideration specific to blended finance:

Subsidy control. The Subsidy Control Act 2022 applies where public financial assistance confers an advantage on an economic actor. The NETF structure's design, an independent fund with commercial pricing of services and no direct subsidy to end beneficiaries beyond what existing grant programmes provide, is intended to minimise subsidy control risk. However, legal analysis is required at Full Business Case stage to confirm this. DESNZ should engage on subsidy control design early in the fund structuring process to avoid late-stage redesign risk.

See also: Q32 (full policy barriers including ONS classification)

Section 2D: Electricity Market Participants

Q37: What are the barriers to electricity market participants investing in low carbon technologies for homes?

WMCA does not hold direct evidence on electricity market participant financing barriers as a primary evidence base. DSO barriers to investment are relevant to the NETF model through the NGED partnership, and DSO flexibility revenue streams are addressed as a NETF income source throughout this submission.

See also: Q3 (DSO flexibility revenues as NETF income stream), Q29 (system benefits capture including DNO network reinforcement avoidance)

Q38: What are the barriers to gas distribution networks investing in low carbon technologies for homes?

WMCA does not hold direct evidence on gas distribution network financing barriers. The long-term logic of gas grid decommissioning shapes the neighbourhood programme's heat decarbonisation sequencing but GDN financing barriers are outside WMCA's primary evidence base.

Q39: What are the barriers to energy suppliers investing in low carbon technologies for homes?

WMCA does not hold direct evidence on energy supplier financing constraints. Energy suppliers benefit from the grid flexibility revenues generated by neighbourhood programmes through demand response and smart tariff arbitrage without contributing to programme costs - a market failure analogous to the mortgage lender issue raised at Q3 and Q20.

Q40: Would energy as a service / solar subscription models support the draft Warm Homes Fund aims?

Energy as a service and solar subscription models are encompassed within the NETF's comfort fee payment architecture. WMCA's evidence on these models is incorporated in Q24-27 and Q3 rather than addressed as standalone use cases.

See also: Q24-27 (comfort fee / revenue sharing), Q3 (revenue streams)

Q41: Is there a need for government finance for energy as a service or solar subscription models?

See Q40. This has not been addressed as a standalone use case, but the need for finance in the context of the NETF's service charge model is addressed at Q25.

See also: Q25 (need for finance for revenue sharing models)

Q42: How could government finance address this gap?

See Q40 and Q41. Addressed within the NETF fund structure response at Q26 and Q31.

See also: Q26, Q31

Q43: What are the wider policy barriers to energy as a service and solar subscription models?

WMCA does not hold direct evidence on government equity investment in energy as a service companies as a standalone category. Policy barriers for service charge models within the NETF are addressed at Q27.

See also: Q27 (policy barriers for revenue and savings sharing)

Q44: Would connection cost loans support the draft Warm Homes Fund aims?

Connection cost loans in the context of heat network connections are addressed at Q62-64. WMCA does not hold direct evidence on standalone connection cost loan structures outside the neighbourhood programme model.

See also: Q62-64 (heat network connection cost financing)

Q45: Is there a need for government finance for connection cost loans?

See Q44 and Q63.

Q46: How could government finance address the connection cost loan gap?

See Q44 and Q64.

Q47: What are the wider policy barriers to connection cost loans?

WMCA notes that the most significant policy barrier for network connection financing is Ofgem's price control framework and Regulated Asset Value treatment of connection assets, which is primarily a regulatory question, rather than a financing design question.

See also: Q64 (heat network connection financing)

Q48: What other interventions could support investment in grid infrastructure?

Not addressed in this submission. WMCA notes that DNO network reinforcement avoidance through coordinated neighbourhood electrification is addressed as a NETF revenue stream and system benefit throughout this submission.

See also: Q29 (system benefits capture), Q3 (DNO network reinforcement avoidance)

Section 2E: Bulk Purchasing

Q49: How could bulk purchasing support the Warm Homes Fund aims?

Neighbourhood-scale delivery creates bulk purchasing opportunities that individual household programmes cannot access. Coordinated contractor mobilisation, shared civils and scaffolding, bulk equipment procurement, and standardised design all reduce per-unit costs relative to the retail market. An additional and distinct category is systemic design: neighbourhood-scale delivery enables community-scale assets, for example a community battery serving multiple homes, shared thermal storage, communal heat pump solutions serving a terrace, all of which deliver the same energy outcomes at materially lower unit cost than individual household assets. This is not merely standardisation but a fundamentally different design approach that is only possible at neighbourhood scale.

The evidence for insufficient cost reduction from fragmented demand is available from the government's own BUS official statistics. The median installed cost of an air source heat pump has fallen by approximately 11% since the BUS launched in 2022, but independent analysis of this data identifies that this headline reduction is substantially driven by a mix shift toward smaller, cheaper installations rather than genuine supply chain cost reduction. On a like-for-like basis, costs have barely moved despite nearly 80,000 installations funded. This is consistent with UKERC and University of Edinburgh/Imperial research (2024): the market has not had the sustained, aggregated volume signals needed to invest in workforce training, standardised processes, and genuine cost reduction. Neighbourhood programmes create those conditions.

The WHF's stated aim of unlocking demand at scale directly depends on cost reduction: lower per-unit costs reduce the financing requirement per household, allow more households to participate within the same capital envelope, and improve financial model viability at lower subsidy levels. Bulk purchasing and systemic design are therefore not peripheral benefits of area-based delivery but central mechanisms through which the WHF achieves its aims.

See also: Q13 (unit cost reduction as a direct benefit to households, reducing loan sizes and comfort fee levels), Q29-31 (neighbourhood programmes as the delivery architecture), Q50-52 (need and finance structure)

Q50: Is there a need for finance here?

Yes. The upfront working capital required to establish programmatic procurement frameworks, train and retain a neighbourhood-scale workforce, and invest in standardised design processes exceeds what individual installers or SME contractors can fund from operational cashflows. This creates a market failure: the supply chain would benefit from investing in programmatic capability, but individual firms cannot absorb the upfront cost without demand certainty, and demand certainty requires a funded programme commitment.

The private sector does not fill this gap because: no individual supply chain firm can internalise the full benefit of industry-wide cost reduction; the investment horizon required exceeds the risk appetite of individual SME contractors; and the absence of standardised programme structures means each project currently requires bespoke procurement, eliminating the efficiency gains that standardisation would create.

See also: Q49 (bulk purchasing and WHF aims), Q51-52 (how government finance addresses this)

Q51: How could government finance address this gap with repayable finance where government earns a return?

The primary mechanism through which government finance addresses the bulk purchasing gap is the capital commitment to the NETF itself. A confirmed, funded neighbourhood programme pipeline is the signal the supply chain needs to invest in the capacity and capability that drives cost reduction. The commitment of CDEL FT equity creates the demand certainty that incentivises supply chain investment; workforce training, standardised processes, bulk equipment procurement, without requiring government to take equity or debt positions in individual supply chain companies.

Where targeted working capital support for supply chain transition is needed, this could be deployed as short-tenor loans to accredited delivery partners within the NETF programme, with repayment secured against programme delivery contracts. The government earns a return through interest on these working capital loans. This is a secondary instrument; the primary lever is the programme capital commitment itself.

See also: Q49-50 (bulk purchasing and market failure), Q29-31 (NETF as the primary mechanism)

Q52: What are the wider policy barriers to bulk purchasing?

The primary policy barrier to bulk purchasing in neighbourhood retrofit is the absence of a funded, committed programme pipeline. Supply chains will not invest in standardised delivery processes, bulk procurement frameworks, or dedicated workforce capacity without confidence that a sustained flow of work will follow.

PAS 2035 and PAS 2030 set the quality standard for retrofit assessment and installation across any WHF programme. Compliance is non-negotiable for consumer protection, but the current supply of PAS 2035-accredited retrofit coordinators and PAS 2030-certified installers is insufficient at neighbourhood programme scale. Any WHF funding should include provision for accelerated accreditation as a prerequisite for programme launch.

The NETF capital commitment directly resolves this barrier. Secondary barriers include: procurement frameworks that do not currently accommodate programme-level multi-technology contracts; skills and workforce capacity constraints that respond to demand certainty; and the absence of standardised technical specifications for neighbourhood-scale retrofit that the national demonstration is designed to develop and publish for replication.

See also: Q49-51, Q29-31

Section 2E: Manufacturing, Supply Chain and Skills

Q53: Would equity investment in retrofit supply chain companies support the Warm Homes Fund aims?

Equity investment in individual supply chain companies is outside WMCA's primary evidence base. At scale, programmatic demand is more effective than equity investment in driving supply chain cost reduction, as it creates market incentives for the private sector to invest in efficiency without requiring government to take equity positions in individual companies.

See also: Q49-52 (bulk purchasing and supply chain)

Q54: Is there a need for government finance for supply chain equity investment?

The primary need is for programme pipeline certainty, addressed through the NETF capital commitment. See Q53.

See also: Q51

Q55: How could government finance address the supply chain equity gap?

Not addressed as a standalone use case. See Q53.

See also: Q51

Q56: What are the wider policy barriers to supply chain equity investment?

See Q53.

See also: Q52

Q57: Would skills loans support the Warm Homes Fund aims?

The provision of skills loans is outside WMCA's primary evidence base, however, the skills constraint on retrofit and heat delivery are real and significant. The programmatic demand certainty from a funded NETF programme could provide an effective mechanism for incentivising supply chain investment in workforce training; skills investment follows demand certainty.

Our experience in delivering devolved skills programmes indicates that developed in the right way, skills loans would likely support the Warm Homes Fund's aims by reducing the barrier to entry for learners to gain the necessary skills to find work in the building upgrade supply chain and providing more flexibility for employers looking to upskill existing employees or take on and train new talent. This would be especially true if provision for modular study is made in this model, offering flexibility for community and small businesses with smaller workforces and limited capacity for employees to devote time to study.

Forecasted demand will be essential for this model to work effectively. Without high confidence of a return on investment, there is no incentive for learners or employers to enter debt to gain new skills. This is a key risk to be managed and could exacerbate the real and significant skills constraint on retrofit delivery.

Programmatic demand certainty from a funded NETF programme is the most effective mechanism for incentivising supply chain investment in workforce training, skills investment follows demand certainty.

The potential for future policy changes or reversals also introduces risks to this model. Solar PV has already seen boom and bust cycles driven by changes in subsidy policies disrupting the market, as has previous cycles of heat network investments. A repeat of this could substantially erode confidence in the market.

See also: Q49-52

Q58: Is there a need for government finance for skills loans?

This sits outside of the WMCA's primary evidence base.

See Q57

Q59: How could government finance address the skills loan gap?

This sits outside of the WMCA's primary evidence base.

See Q58.

See also: Q57

Q60: What are the wider policy barriers to skills loans?

This sits outside of the WMCA's primary evidence base.

See Q58.

See also: Q57

Section 2F: Heat Networks

Q61: How could the Warm Homes Fund support the market growth of heat networks as set out in the Warm Homes Plan?

WMCA's primary contribution to this question is the observation that neighbourhood transition programmes resolve two structural problems that currently prevent heat networks from accessing residential demand at scale.

The catch-22 of residential commitment

Heat network investment cases depend on a secured connection pipeline: the number of buildings and households committed to connecting before construction begins. In practice this commitment is extremely difficult to obtain in advance: households will not commit to a connection until they can see the network being built, and developers will not build until they have commitments. This catch-22 suppresses heat network deployment even where the economics are otherwise viable.

A neighbourhood transition programme, operating across a defined geography with a community engagement programme and a trusted delivery organisation, is precisely the mechanism needed to break this catch-22. The neighbourhood engagement process naturally identifies heat network connection candidates, surfaces demand at the household level, and creates the visibility on connection density that makes heat network investment cases bankable. The SPV structure can directly incorporate heat network connection as one of the decarbonisation options, with connection fees and heat supply revenue flowing to the SPV alongside other revenue streams.

The residential demand aggregation problem

Most heat network projects currently ignore residential heat demand entirely, except for new build and a few large residential buildings, because it is too fragmented to provide a reliable, bankable demand base. Instead, they focus on large heat sources and anchor loads where

demand is concentrated and predictable. This significantly limits the geographic scope of viable heat network development.

The area-based neighbourhood programme provides a model for aggregating residential demand into bulk demand. A neighbourhood of 500–2,000 homes with coordinated enrolment effectively becomes an anchor load, large enough and committed enough to underpin a residential distribution heat network as a viable investment. This could take the form of standalone ground source loop networks for dense terraced streets, or off-taker agreements from larger networks where the neighbourhood sits within a heat zone. The neighbourhood programme pre-signs up the community, turning fragmented residential heat demand into investable bulk demand.

Combining heat, fabric, and generation

The financial case for NETF investment into heat networks improves materially when combined with fabric retrofit to increase bill savings, and with generation and flexibility assets, which improve the neighbourhood's overall energy economics. The NETF SPV structure enables this optimisation at the neighbourhood level. The combined approach also reduces per-property programme costs relative to delivering each component separately.

Long-term stewardship

Heat network assets require long-term stewardship aligned with community and public interest. Local authority balance sheets typically cannot support this at scale; private sector ownership creates incentive misalignment between operator returns and heat supply affordability. The NETF SPV structure provides a third option: public-interest stewardship with commercial governance, preserving alignment between heat network operator incentives and community and decarbonisation objectives over the long term.

WMCA is engaged with the DESNZ Advanced Zoning Programme and has active heat network development interests across the West Midlands. The NETF structure is designed from the outset to be compatible with heat network investment, with project SPVs able to host fabric retrofit, heat network connection, and generation within the same neighbourhood programme.

See also: Q62-64 (specific need and finance structure for heat network support)

Q62: Would investment in heat networks contribute to the Warm Homes Fund aims?

Yes, and the neighbourhood transition programme creates an efficient channel for multiple forms of heat network investment simultaneously:

- **Connection cost loans:** Loans to households or building owners to cover heat network connection costs are directly supported by the neighbourhood programme's collective enrolment mechanism, which reduces the per-unit cost of connection assessment and agreement.

- **Network capital support:** WHF FT capital deployed into neighbourhood SPVs can co-invest alongside Green Heat Network Fund (GHNF) grant and NWF debt in heat network infrastructure where this is the lowest-cost decarbonisation option for a neighbourhood area.
- **Heat Network Technical Assurance Scheme (HNTAS) compliance:** The SPV structure and its professional project management capability provides the governance framework that HNTAS compliance requires, which is often beyond the capacity of individual building owners or smaller local authorities to provide independently.

Benefits can be realised quickly where the neighbourhood programme has already identified heat network zones and initiated community engagement, as is the case in several existing WMCA Net Zero Neighbourhood areas. Risks are primarily around connection uptake, network construction cost inflation, and the regulatory transition under the Heat Network (Consumer Protection) Act. All are manageable through careful programme design.

See also: Q63-64 (need and finance structure), Q61 (catch-22 framing)

Q63: Is there a need for finance here?

Yes. The heat network investment case depends on two financing gaps that WHF capital can address:

1. **Development capital:** The capital required to advance projects from heat network zone identification to financial close – feasibility studies, community engagement, legal structuring, connection agreements – is too costly for local authorities to fund from revenue budgets and too risky for private developers to absorb without an anchor funding commitment.
2. **Connection cost subsidy or loan:** Individual building connection costs are often prohibitive for mixed-tenure properties where the split incentive applies – specifically where the building owner must pay connection costs but the occupant benefits from cheaper heat supply. A connection cost loan mechanism, recoverable through heat supply revenues or a property-linked payment obligation, is required to make connections accessible across the full tenure mix.

The private sector does not fill these gaps because: development risk is too high relative to returns at early stage; individual connection cost recovery is too uncertain without portfolio-level risk pooling; and the regulatory environment for heat networks is still evolving under the Heat Network (Consumer Protection) Act and heat network zoning policy.

See also: Q64 (how government finance addresses these gaps), Q61-62 (strategic and investment case)

Q64: How could government finance address this gap?

Through the NETF structure, WHF FT capital can:

- Fund neighbourhood programme development costs (including heat network feasibility, zone analysis, and community engagement) as capitalised project development costs within each SPV, recovered through the SPV's revenue streams over the programme life.
- Provide equity alongside GHNF grant and NWF debt in SPVs where heat network connection is the primary decarbonisation route, creating a blended capital structure that makes the investment case viable at lower individual connection densities.
- Fund connection cost loans to individual buildings within the neighbourhood programme, with loan recovery through heat supply revenues or property-linked payment obligation mechanisms.

This integrates heat network investment with the broader neighbourhood retrofit programme rather than treating it as a separate procurement. Integration at the neighbourhood level allows the economics of heat, fabric, and generation to be optimised together, which typically improves the overall financial case for all three: fabric improvements reduce peak heat demand, improving network utilisation; network infrastructure serves as shared energy backbone for grid flexibility assets; generation assets provide renewable supply that improves the heat network's carbon performance.

Government earns a return through equity distributions from the neighbourhood SPV. The heat supply revenue stream is among the more predictable income sources within the programme; it benefits from a captive customer base within the heat network zone, which strengthens the overall financial model.

See also: Q61-63, Q29-31 (NETF structure as the integrating vehicle)

Section 2F: Heat Networks

Q65: What are the wider policy barriers to heat network investment?

The Local Authorities that make up the WMCA have been working with Energy Capital's heat team to identify, and where possible address, barriers to heat network investment, including work on the Advanced Zoning Programme.

The key barrier remains the lack of devolved responsibility to deliver heat networks. Without this, local areas remain reliant on political support to adequately resource bidding for competitive Green Heat Network Fund grants, with uncertain timelines. When combined with local apprehension resulting from past experiences and AZP being geared towards private sector led delivery, local authorities remain poorly informed clients and are rarely adequately resourced to be able to drive co-investment models which would deliver their local policy goals.

Devolution of powers and funding would improve local confidence and enable strategic investment in shared capacity to address the above issues.

Other issues include heat network zoning designation lag, which is resulting in commercial land grabs to secure assets, as well as Heat Network Technical Assurance Scheme compliance cost, and the regulatory transition under the Heat Network (Consumer Protection) Act.

See also: Q61-64 (WMCA's substantive heat network responses)

Section 2G: Community Energy

Q66: How would investments in community energy projects support the Warm Homes Fund aims?

Community energy and neighbourhood retrofit need not be separate programmes when they are in the same geography. The NETF SPV structure is designed to accommodate both simultaneously; with Local Power Plan capital (GBE grants, loans and Pillar D equity) and WHF capital, as options that can co-invest in the same neighbourhood scheme where generation and Smart Local Energy Scheme (SLES) components are included alongside fabric retrofit. This is an option to explore as the fund design develops, rather than a prerequisite for the programme.

The Local Power Plan and Warm Homes Plan were developed as distinct policy programmes with separate ministerial leads. In practice their scopes overlap directly in area-based neighbourhood decarbonisation: a neighbourhood programme that includes rooftop solar, community batteries, and grid flexibility assets alongside fabric retrofit serves both programmes' objectives simultaneously. The NETF is the integrating vehicle that allows both capital sources to be deployed in the same neighbourhood where both are available.

WMCA has signed a Memorandum of Understanding with GBE and is exploring how the NETF model could align with GBE's investment objectives. The SPV structure also directly enables community equity investment and ownership within neighbourhood programmes, giving residents a genuine stake in the assets in their area, which aligns with GBE's aim to act as a steward for community shares and with the Local Power Plan's vision for shared community benefit.

See also: Q67-68 (need and finance structure for community energy), Q33-35 (blended finance – LPP/WHF co-investment options)

Q67: Is there a need for finance in community energy?

Yes. Community energy projects face a persistent development financing gap: the capital required to advance from concept to investment-ready project is too costly for community

energy groups to fund independently and too small and high-risk for institutional finance to engage with efficiently. There are development models that address this issue in part by taking the development risk and recouping this through an upside fee structure, but this is not currently delivering at scale. The neighbourhood programme model addresses this by:

- Providing professional project development capacity through Energy Capital, WMCA's specialist energy transition delivery function, which brings together the technical and financial structuring capability that community energy groups typically cannot access at an early stage without grant funding, and enabling a whole place approach, including access to wider community enhancement funds that facilitate active engagement of citizens (evidenced through our Net Zero Neighbourhood programme). In a multi-region programme, equivalent functions would be provided by regional delivery partners rather than requiring each region to replicate this capability independently.
- Creating an aggregation vehicle that allows multiple community energy assets within a neighbourhood to be financed together at investable scale.
- Enabling direct community equity stakes in individual neighbourhood SPVs, giving communities a genuine ownership interest in the assets in their area, not merely the downstream benefits of delivery. This is consistent with GBE's shared ownership objectives and the Local Power Plan's vision for community benefit.

See also: Q68 (how government finance addresses this gap), Q66 (strategic case for community energy in neighbourhood programmes)

Q68: How could government finance address this gap?

Through the NETF structure, WHF FT capital can co-invest alongside GBE grants, GBE Pillar D equity, and community share capital in neighbourhood SPVs that incorporate generation and SLES components. The community equity stake is structured as a junior tranche within the SPV capital structure, subordinate to the public equity and private debt layers, with returns accruing to the community as the SPV generates income from energy sales, grid flexibility services, and comfort fee revenues.

Government earns a return on the WHF FT equity through SPV distributions as revenues mature. Community investors earn a return on their equity stake. Private debt investors are protected by the equity layers below them. This capital structure allows multiple investor types with different return requirements and risk appetites to participate in the same neighbourhood programme without requiring any single investor to bear the full early-stage risk.

The key design principle is that government finance creates the conditions for community investment rather than displacing it: public equity absorbs the early-stage risk that community investors cannot bear, establishing the track record and governance standards that make community share offers credible and achievable.

See also: Q66-67, Q33-35 (blended finance and LPP co-investment)

Section 2G: Community Energy

Q69: What are the wider policy barriers to community energy investment?

Wider community energy policy barriers, including planning, grid connection, community share regulation etc are outside WMCA's primary evidence base. WMCA notes that the most significant barrier for community energy in neighbourhood programmes is the development financing gap addressed at Q67-68, rather than the regulatory framework per se.

See also: Q67-68 (community energy need and finance structure)

Section 2H: Other Use Cases

Q70: What other potential use cases are there for the Warm Homes Fund?

The multi-region national demonstration programme

The most significant additional use case WMCA wishes to propose is a coordinated, multi-region national demonstration programme, with the West Midlands as anchor National Demonstrator and a national NETF structure that provides ring-fenced National Demonstrator Allocations for qualifying regions and an Open Allocation for further regions as their pipelines mature.

WMCA's NETF is designed from the outset to generate structured evidence for national replication across eight learning dimensions (set out in full in Annex A). These dimensions; consumer response, investor terms, payment mechanism performance, supply chain response, DNO engagement, multi-tenure governance, pricing approaches, and replication readiness, can only be answered through a live, funded programme. The West Midlands has the strongest institutional infrastructure of any region in England to begin this evidence generation immediately.

Several combined authorities have independently developed compatible models and are well-placed to seek National Demonstrator Allocations or to participate through the Open Allocation, including the Local Net Zero Accelerator authorities, GMCA and YNYCA. **York and North Yorkshire Combined Authority** has completed an Outline Business Case for a Regional Operating Entity and is actively developing a compatible investment fund model. YNYCA is also preparing a CfE response aligned to the WMCA proposition.

In addition, **London Councils** has completed analysis of a London-wide NZN programme and is exploring how a compatible fund model could operate at the London scale. **Bristol City Council / West of England Combined Authority** has also completed a Net Zero Neighbourhood programme design for three specific areas (developed under the Innovate UK Net Zero Living programme) and is exploring compatible fund structures, supported by legal

analysis from Burges Salmon LLP (originally prepared to inform the Bristol NZN OBC funded by Innovate UK as part of the Thriving Places/Net Zero Living portfolio).

A coordinated multi-region programme, with WMCA as anchor National Demonstrator and YNYCA, London Councils, Bristol/WECA, GMCA and other qualifying regions participating through their own National Demonstrator Allocations or the Open Allocation, would: justify a proportionally larger aggregate allocation from the £3.3bn pot (potentially approaching £1–2bn for an initial cohort of committed regions); generate replication evidence at multiple regional archetypes simultaneously rather than sequentially; and demonstrate to institutional investors that the model is genuinely national in scope rather than a single regional exercise.

WMCA requests that DESNZ establish National Demonstrator Allocations and an Open Allocation mechanism as part of the WHF programme design, with ring-fenced capital for regions meeting defined delivery readiness criteria, analogous to the tiered structure used in the Local Net Zero Accelerator programme.

The GBE / Local Power Plan co-investment model

As described in Q66-68 and Q33, the NETF structure provides the integrating vehicle for LPP and WHF capital to co-invest in the same neighbourhood scheme. DESNZ should engage GBE and NWF at programme design stage to agree the co-investment terms, governance framework, and capital allocation principles that would allow this integration to operate efficiently where both capital sources are available. This is not a use case that emerges organically; it requires deliberate design by the relevant government bodies.

Local authority temporary accommodation.

A further underserved tenure is local authority-owned temporary accommodation. These properties sit outside the standard social housing and private rented sector classifications and therefore do not readily qualify for grant programmes targeted at either tenure. They are often among the least energy-efficient properties in local authority stock, with occupants who are frequently in acute housing need. WMCA notes that the comfort fee model, while appropriate for most tenures, may not be well-suited to temporary accommodation given the often challenging and transient circumstances of occupants and the difficulty of establishing long-term service obligations in this context. WMCA recommends that the WHF include a specific grant pathway for local authority temporary accommodation, recognising both the vulnerability of occupants and the barriers to applying standard repayable capital instruments in this tenure.

Annex A: NETF Briefing Note

“Area-Based Retrofit and the Case for a Neighbourhood Energy Transition Fund”, Living Places for WMCA, April 2026. This has also been supplied as a separate file attached to our submission email.

West Midlands Combined Authority

AREA-BASED RETROFIT AND THE CASE FOR A NEIGHBOURHOOD ENERGY TRANSITION FUND

01 June 2026



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Executive Summary

The ask

The West Midlands Combined Authority (WMCA) is seeking a National Demonstrator Allocation of approximately £340m CDEL Financial Transactions (CDEL FT) from the Warm Homes Plan's £3.3bn innovative finance and social housing pot to equity-capitalise the Neighbourhood Energy Transition Fund (NETF)'s West Midlands programme. WMCA proposes the NETF as a national investment fund with regional programme allocations and delivery.

The challenge

The UK has approximately 29 million homes to decarbonise. Current policy relies primarily on individual household or social housing grant programmes which provide essential support, but they do not, on their own, mobilise sufficient private capital at the scale required to drive supply chain cost reduction, or create the investable pipeline that institutional investors need to participate. At current rates of delivery, the gap between ambition and outcome will widen and places will not reap the full benefit of the electrification and decarbonisation of the energy system.

The opportunity

The Warm Homes Plan, published in January 2026, allocates £5bn of FTs (repayable, capital-preserving instruments) rather than grants, with the intention that investment is recycled over time. Of the £5bn, £1.7bn is allocated to low-cost consumer loans (paired with £300m CDEL grant to form a £2bn consumer loans programme), £600m is directed at social housing, and £2.7bn is described as being for financial innovation in the retrofit sector. The latter two together – £3.3bn – are the pot within which the NETF equity instrument would sit. This represents an explicit government signal that the financing architecture for retrofit must go beyond grant. The West Midlands, through its work in the Local Net Zero Accelerator, is ready to demonstrate what that architecture can look like in practice.

The proposal

The NETF would be capitalised with CDEL FT deployed as patient equity capital, leveraged with private sector debt and deployed alongside existing grant programmes. The fund would originate neighbourhood-scale retrofit projects, typically 500–2,000 homes, delivered through special purpose vehicles that aggregate demand, capture system revenues, and return surplus to communities. At this scale, the challenge transforms from the seemingly impossible task of decarbonising 29 million homes into a finite number of approximately 20,000 replicable funded neighbourhood schemes nationally. Critically, this framing reveals the only financially viable route at national scale: there is simply not enough grant funding to cover 29 million homes individually, but repayable finance deployed through neighbourhood programmes, accessible to all households regardless of tenure or income, creates a model that can scale.

Why area-based retrofit works

Neighbourhood-scale delivery creates economies of scale that go materially beyond what even well-organised social housing programmes can achieve individually: shared infrastructure, programmatic supply chain management that drives genuine cost reduction, aggregated grid flexibility revenues inaccessible to individual households, and social dynamics that accelerate uptake, and a compelling place-based narrative that builds community identity and consent in ways that individual property-focused programmes cannot. Area-based delivery also aligns with the natural geography of heat network zones, DNO substation catchments, and the long-term logic of planned gas grid decommissioning.

The market failure case

Current markets fail to deliver at scale because no single actor can internalise the benefits of coordinated neighbourhood action. Information asymmetries, split incentives between landlords and tenants, fragmented supply chains, and immature investment pipelines all create barriers that public investment is uniquely placed to address. Our proposed delivery model and Neighbourhood Energy Transition Fund resolve these failures simultaneously.

Why CDEL FT equity rather than debt

Equity-aligned FT capital is more appropriate than senior debt for early-stage SPVs in a national demonstration: it absorbs first-loss risk, makes the SPV attractive to private debt co-investors, and aligns the return profile with actual project performance. The base case financial model shows limited initial debt leverage with positive equity returns below gilt yield, consistent with the FT Control Framework's provision for concessional returns where market failure is being addressed. The upside case, assuming capital economies of scale and improved operating performance, shows equity returns above gilt yield and debt leverage approaching a 1:1 ratio.

The West Midlands as national demonstration

The WMCA has the institutional platform, through Energy Capital, the Integrated Settlement, and the existing Net Zero Neighbourhood programme, to serve as an anchor National Demonstrator within the national NETF. Other regions with sufficient delivery infrastructure and programme pipeline may also seek National Demonstrator status, and the fund architecture is designed to accommodate this. Together, a national cohort of demonstrators covering different regional typologies would generate a stronger and more replicable evidence base than any single demonstrator could provide. Critically, the West Midlands would not be starting from a standing start: projects already exist today that could deploy funding in the near term to drive accelerated learning through the current government term. Next steps are set out in Section 9.

1. The Economics of Domestic Retrofit

1.1. The cost of retrofit and the funding gap

The gross cost of whole-house retrofit varies significantly by property archetype, construction type, and the depth of intervention required. For a typical pre-1980 semi-detached home, costs range from approximately £20,000–40,000 for a comprehensive package combining fabric improvements, heat pump installation, and complementary low-carbon technologies such as solar/battery. Current grant support, combining the Boiler Upgrade Scheme, Warm Homes: Social Housing Fund, and Warm Homes: Local Grant where applicable, covers a meaningful share of this cost for eligible properties, but leaves a substantial residual financing requirement for the majority of the housing stock. This gap will not close of its own accord. Even as delivery scales, supply chains mature, and financing structures improve, it may not narrow given the scale of the work within a shortening window of time; public capital intervention remains necessary to genuinely bridge the gap.

1.2. Monetary benefits that could directly support a funding model

Retrofit generates several categories of benefit that are, in principle, convertible into revenue streams capable of supporting a financing model. In descending order of bankability these include:

- Energy bill savings accruing to households, which can be partially monetised through a service charge or ‘comfort pricing’ model. The Warm Homes Plan notes that heat pumps in combination with battery and solar can reduce household energy bills by up to £1,000 per year. These savings provide a basis for a partial repayment mechanism, though the conversion of savings into service charge income requires careful consumer design and testing, particularly in fuel-poor areas where improvements may result in a ‘comfort upgrade’ rather than a bill reduction (see Section 7).
- Grid flexibility and demand response income, which is included in the financial model at a conservative level in the base case, reflecting current market immaturity as it is not yet generally considered “bankable” for senior debt underwriting purposes, but provides meaningful upside, accessible through aggregated smart assets, batteries, smart heat pumps, thermal stores, operating at neighbourhood scale. This revenue stream, generated through DSO demand response and smart tariff arbitrage, is not fully accessible to individual households acting alone, but becomes material at the scale of a neighbourhood SPV and is being piloted with National Grid Electricity Distribution in the West Midlands.
- Carbon credits, explored through the LNZA programme, represent a potential future revenue stream as voluntary and compliance carbon markets mature. These are not currently sufficiently liquid or standardised to underpin a financial model and should therefore be treated as upside optionality, rather than a base case assumption.

These monetary benefits are real and significant, but they are difficult to access without aggregation and insufficient on their own to close the financing gap without concessional public capital. They serve to

reduce the size of the gap and, in the upside case, to generate returns that can reward equity investors and attract private debt.

1.3. Economic benefits that are real but do not directly fund the model

Retrofit generates a wider range of economic and social benefits that justify public investment and grant support, but which do not accrue directly to the financing model:

- Health outcomes: also explored through the LNZA programme, including reduced cold-related illness, respiratory conditions, and mortality from underheating; reduced incidence of damp, mould, and associated respiratory and cardiovascular disease; reduced indoor and outdoor air pollution with associated respiratory, cardiovascular and mental health benefits; and reduced overheating risk, which is an increasing concern as summer temperatures rise. The NHS cost savings associated with warmer, drier, better-ventilated homes are substantial but difficult to direct into an SPV revenue stream.
- Productivity: warmer, healthier homes reduce days lost to cold-related and respiratory conditions, with measurable economic benefits, again difficult to monetise, and
- Local economic activity: supply chain employment, skills development, and local multiplier effects from sustained programme spending.

These benefits provide strong public interest justification for the grant component of the capital stack, but sit outside the direct financing model.

1.4. The true cost problem: retail prices versus at-scale delivery

The current retail market for retrofit systematically overprices relative to what is achievable at programmatic scale. The average ASHP installation under the Boiler Upgrade Scheme costs approximately £12,500 (government BUS statistics). The market average after the grant is approximately £5,295 (Nesta/MCS data).

At-scale, vertically integrated operators demonstrate materially lower costs. Octopus Energy, the UK's largest heat pump installer, reports a typical installed price post-grant of £3,818, compared with a market average of £5,295: a differential of approximately 28%. The company's CEO has stated publicly that manufacturing investment reduced hardware costs from approximately £3,000 to £1,500 per unit.

Academic evidence from UKERC and the Universities of Edinburgh and Imperial (2024) confirms that costs in the UK have not materially reduced over the past decade, attributing this primarily to fragmented, low-volume demand that gives the supply chain no incentive to invest in efficiency improvements. The same research identifies that non-equipment costs, labour, installation practices, surveying and commissioning, offer the greatest scope for reduction through scaled, streamlined delivery. Countries that have successfully expanded their heat pump markets have seen supply chains respond with meaningful cost reductions; the UK has not yet created the demand conditions to trigger this response.

A further component of current retail cost that is rarely discussed is customer acquisition. Individual installers bear a high cost per sale when marketing to one household at a time: surveys, consultations, bespoke designs, and the significant proportion of marketing spend that does not convert. A neighbourhood programme markets once to many, dramatically reducing cost per installation and enabling the supply chain to invest in standardised delivery processes, shared workforce mobilisation, and bulk procurement. This feeds directly into the economies of scale argument in Section 3.

2. What Area-Based Retrofit Means

2.1. Definition

Area-based retrofit is coordinated, place-based delivery of energy efficiency and low-carbon heating improvements across a defined geography, combining multiple technologies and funding streams around a single neighbourhood or district. It is the deliberate opposite of the current dominant model: household-by-household interventions, technology-by-technology grant programmes, and fragmented delivery that neither aggregates demand nor internalises system benefits.

In practice, an area-based approach brings together fabric improvements (insulation, ventilation, air tightness), low-carbon heat (e.g. heat pumps or heat networks), complementary technologies (solar PV, batteries, EV charging), and potentially enabling infrastructure (substation upgrades, grid reinforcement) into a single, coordinated investment programme across a defined neighbourhood of typically 500–2,000 homes, constituting a series of delivery phases over a period of time. It may also be aligned with other place-making activities, including decarbonisation of non-domestic buildings, adaptation measures and infrastructure investment.

2.2. The neighbourhood as the natural unit of delivery

The neighbourhood is not an arbitrary unit. It is the scale at which the economics of retrofit become most tractable, for several distinct reasons:

- Infrastructure economics: heat networks require a minimum density of connections to be viable, typically of the order of 500 connections or more. Shared ground loops for networked ground source heat pumps, community batteries, and microgrid infrastructure all have minimum economic scales that align with neighbourhood geography.
- Social dynamics: peer influence within communities accelerates adoption. Residents are more likely to participate when their neighbours have done so, when they can see working installations nearby, and when a trusted local organisation is delivering the programme. Neighbourhood delivery creates the social conditions for uptake that individual marketing cannot replicate.
- Planning logic: coordinated streetworks, including current unlooping programmes of DNOs, permissions, and contractor mobilisation across a defined geography reduce disruption, cost and delay relative to fragmented one-off installations.
- Infrastructure alignment: the neighbourhood maps naturally to the planning units that will define the low-carbon infrastructure transition, heat network zone designations under the Area Heat

Network Zoning policy, DNO low-voltage substation catchment areas and reinforcement planning zones, and the long-term logic of phased gas grid decommissioning, where coordinated neighbourhood transition enables planned asset retirement rather than stranded infrastructure investment.

There is also a critical reframing that the neighbourhood unit enables. The national challenge is conventionally described as decarbonising approximately 29 million homes, a number that sounds both impossibly large and inescapably individual. The neighbourhood unit transforms this into a more tractable policy problem. Using a planning heuristic of approximately 1,000 homes per neighbourhood scheme, the national challenge translates to approximately 20,000–29,000 funded, replicable neighbourhood programmes. This is a large but finite number of efficient, standardised investments, fundable, deliverable, and replicable in ways that individual household grant programmes cannot be. The West Midlands alone, with approximately 1.2 million homes, represents approximately 1,200 such programmes.

3. Why Area-Based Retrofit Outperforms Individual Grant Programmes

3.1. Economies of scale in delivery

Aggregated, programmatic demand fundamentally restructures the economics of retrofit delivery. Shared civils, scaffolding and access, bulk procurement, and coordinated contractor mobilisation reduce per-unit costs relative to the one-off retail market documented in Section 1.4. More importantly, a guaranteed pipeline of work gives the supply chain the incentive and the security to invest in efficiency: to train and retain a workforce, to develop standardised designs, to procure equipment in volume, and to compete on unit cost rather than on individually negotiated retail margin.

A further dimension is shared asset design. Rather than installing the same equipment 1,000 times across individual homes, neighbourhood-scale design enables shared infrastructure where this improves the economics: a community battery serving 200 homes instead of 200 individual batteries; shared thermal stores; networked ground source heat pump ground loops. The same if not greater outcomes are achieved at materially lower per-unit capital cost. Shared asset design may also have a material impact on demand. Giving up limited cupboard space for a battery is a demand barrier – community batteries, where space outside the residences allows, avoid this issue.

Customer acquisition cost is also transformed. Individual installers face a high cost per sale when marketing to one household at a time, with significant survey, consultation, and design costs incurred even for proposals that do not convert. Neighbourhood-wide marketing and engagement replaces this with a single structured programme, dramatically reducing cost per installation.

3.2. System integration and new revenue streams

Combining retrofit, heat, generation and storage at neighbourhood scale creates smart local energy systems capable of capturing revenue streams that are inaccessible to individual households. DSO flexibility services, demand response revenues, and smart tariff arbitrage all require aggregated,

dispatchable assets. A neighbourhood SPV can fully capture these revenues at a system level; an individual household cannot. Furthermore, community-scale battery assets can dispatch and shift energy more flexibly than individual batteries, providing residents with energy at times when individual storage would be depleted and generating additional value from flexibility markets. This system integration also reduces total capital required per unit of energy bill saved, as optimised multi-technology design displaces the need for some individual asset investment.

3.3. Demand aggregation creates an investable pipeline

Individual retrofit projects are too small, too heterogeneous, and too early-stage to attract institutional capital on acceptable terms. A neighbourhood approach creates projects of sufficient scale, typically £50m–£300m, with standardised structures, documented risk profiles, and replicable archetypes. This transforms a fragmented collection of grant-dependent household interventions into an investable pipeline where institutional debt can sit alongside equity.

3.4. Social and behavioural benefits

Trusted, place-based delivery models have demonstrated higher uptake rates than individual grant programmes and stronger long-term asset stewardship. Community governance of delivery vehicles creates local accountability and ensures that programme benefits are shared with residents rather than extracted by distant investors and provides the platform for continuous quality assurance to be built into the delivery and operational models. A key design consideration is the minimum participation threshold required for the financial model to work: the comfort fee revenue model depends on sufficient aggregate uptake within each neighbourhood, and the national demonstration is designed to test what participation rates are achievable and what consumer offer characteristics drive them. This is not incidental to the financing model: a clear and compelling consumer proposition, covering fair financial benefits, robust affordability checks, and transparent billing (Energiesprong Comfort Plan research, 2025), is the primary driver of uptake, supported by community trust in the delivering organisation as a reinforcing factor for the service charge or comfort pricing structures that support revenue generation and the scale of sign up to drive the model.

3.5. Reduced government cost per tonne of carbon

The cumulative effect of scale economies, system integration, and supply chain rationalisation is a materially lower cost per tonne of carbon saved relative to individual grant programmes. This makes the CDEL FT ask proportionately more efficient: more carbon, more energy security, and more economic benefit per pound of public capital deployed.

4. The Missing Link: From Policy to Delivery

4.1. The structural gap in current policy

The Warm Homes Plan, published in January 2026, sets out an ambitious programme for residential retrofit backed by £15bn of total investment. The plan explicitly acknowledges the role of area-based

delivery, noting that “evidence from existing programmes shows that trusted, place-based delivery models can improve resident engagement, raise installation quality, and build consumer confidence.” It commits the Department of Energy Security & Net Zero (DESNZ) to work with councils, DNOs and others to trial new approaches to area-based delivery, with further detail expected by Spring 2026.

The West Midlands proposal offers that further detail. It is a fully developed institutional and financial architecture for area-based delivery that is ready to move from concept to delivery, requiring only the capital instrument that the Warm Homes Plan has already identified as the appropriate mechanism: Financial Transactions.

The structural gap is not one of ambition or even of programme design. It is of institutional architecture. Local authorities have the community relationships, strategic oversight, and political legitimacy to convene area-based programmes. They lack the financial structure to aggregate capital at the scale required and to act as sponsors of investment-grade projects. The Neighbourhood Energy Transition Fund is the missing institutional layer that connects national capital to local delivery.

4.2. Market failure - what this proposal addresses

A CDEL FT deployment requires a clear market failure justification. This proposal addresses five distinct and well-evidenced market failures simultaneously:

- Information asymmetry: households cannot assess retrofit value, insurability, or whole-life cost; installers cannot forecast demand or justify workforce investment; investors cannot see a credible pipeline. No actor has the full picture required to make efficient investment decisions.
- Coordination failure: no single actor can internalise the system benefits of neighbourhood-scale delivery. Heat network developers, DNOs, housing providers and households each act independently, destroying value that coordinated action would create. The fund acts as a coordinator of last resort.
- Split incentives: landlords bear cost while tenants receive benefit; lenders do not reflect retrofit value in mortgage assessments; energy suppliers benefit from efficiency improvements but bear none of the delivery cost. These misalignments systematically suppress investment.
- Thin and immature markets: there are insufficient standardised, investment-ready projects to attract institutional capital on acceptable terms or stimulate supply chain investment. The pipeline is too fragmented and too early-stage to close without upstream investment in project development.
- Risk concentration: individual households cannot bear the upfront cost, technology performance risk, or 25-year+ asset management responsibility of a whole-house retrofit programme. Public capital is needed to absorb and redistribute these risks to actors better placed to manage them.

The Neighbourhood Energy Transition Fund, capitalised with CDEL FT, and supporting delivery model, directly addresses each of these failures: aggregating demand, coordinating stakeholders, standardising risk profiles, and creating the investment-grade pipeline that private capital and the supply chain requires.

5. How a Neighbourhood Energy Transition Fund Unlocks Area-Based Retrofit

5.1. The fund as institutional convenor and capital aggregator

The fund acts as the institutional layer that current policy lacks: aggregating national capital instruments (CDEL FT, NWF co-investment, GBE partnerships) with regional grant programmes (Integrated Settlement, Social Housing Fund and RP matched funding, Local Grant, the proposed successor programme to the Social Housing Fund and Local Grant from 2027/28) and private institutional finance around a coherent, place-based delivery pipeline. It creates the governance, the standards, and the project structures that allow each of these capital sources to participate in neighbourhood retrofit investment without bearing the risks they are ill-equipped to manage.

5.2. The Pipeline Development Facility and Energy Capital

The upstream project origination and development function of the fund in the West Midlands would be led by an enhanced WMCA Energy Capital team. Energy Capital already has the technical capability, institutional relationships, and strategic oversight to act as a credible convenor of neighbourhood retrofit programmes. In this model, however, it would require expanded capacity to fulfil a more active role: identifying and appraising potential neighbourhood programme areas, engaging DNOs (NGED is already engaged as a partner in this programme), housing providers and local authorities, structuring projects to investment readiness, and managing the pipeline through to financial close and into long-term operation.

This Pipeline Development Facility function addresses a fundamental problem: investors need to see real, investment-ready projects before they will commit capital. The gap between a neighbourhood area identified as suitable for retrofit and a project capable of receiving institutional investment is substantial, in terms of feasibility work, community engagement, stakeholder alignment, technical design, and financial structuring. The Pipeline Development Facility bridges that gap, converting policy intent into investable assets.

Energy Capital is currently funded as a directorate of the Combined Authority through a mixture of core funding and income from CDEL and RDEL grant programmes such as the Integrated Settlement and the Local Net Zero Accelerator. Under this model the project development capability would be paid for by the Neighbourhood Energy Transition Fund as capitalised costs on each project (essentially a top slice of the CDEL FT). Consideration may be given to whether the pipeline development facility is spun out from the Combined Authority as a commercial, but not-for-profit, public-sector-owned company allowing it to operate in a more agile way and attract the required technical capability at competitive rates. York and North Yorkshire Combined Authority's LNZA programme has been examining precisely this transition, from enhanced in-house team to arms-length entity, in developing its Regional Operating Entity model, and the two LNZA programmes are sharing learning on the optimal governance structure for regional delivery functions within the national NETF.

5.3. The consumer offer and payment architecture

Each neighbourhood programme would be structured as a special purpose vehicle, a contractual delivery entity that receives capital from the fund, contracts with the supply chain for delivery, operation and maintenance, captures project revenues, services the capital structure and returns any excess surplus to the community. The SPVs would be directly owned by the fund's holding structure into which CDEL FT is injected. This preserves WMCA's fiscal position, avoiding consolidation onto stretched local government entity balance sheet, while creating investment-grade project entities capable of receiving and deploying capital at neighbourhood scale.

The programme offers residents a genuine choice of three payment routes.

1. The first is outright cash purchase, for households able to fund all or part of the works from savings, remortgage, or equity release.
2. The second is the comfort fee: a monthly service charge calibrated to the household's pre-retrofit energy bill, with the SPV owning and maintaining the assets under a performance guarantee, with asset maintenance and replacement included as standard.
3. The third is a Warm Homes Fund consumer loan, part of the scheme's £2bn consumer loans programme (£1.7bn Financial Transaction capital lent through intermediary lenders, with a £300m CDEL grant covering the interest rate subsidy so the household sees a subsidised or zero-rate product), where the resident owns the assets and captures the full energy bill saving, with the option to add an ongoing maintenance and replacement service.

Across all three routes, residents benefit from the same centralised offer: expert scheme design, coordinated project and supplier management, rigorous quality assurance, and potentially significant unit cost advantages from collective procurement of materials and installer capacity across the programme. These are benefits that no individual household procuring retrofit independently could access or afford.

Providing all three payment routes matters for aggregate uptake as well as accessibility. Research on the Comfort Plan model, funded by DESNZ and published in April 2025¹, identified a clear narrative, fair financial benefits, robust affordability checks, and transparent billing as the primary drivers of resident uptake, and found that the model only becomes financially viable at scale: across all commercial structures tested, positive returns require a minimum of approximately 400 homes enrolled cumulatively. Both findings reinforce the case for area-based delivery over individual programmes.

The neighbourhood programme also acts as the bulk origination channel for all three payment routes simultaneously. The consumer loans scheme, for example, is currently envisaged to operate through individual lender relationships with individual households. A neighbourhood programme aggregates and pre-qualifies applicants, reduces lender customer acquisition costs substantially, and provides the

¹ Energiesprong UK (2025) *Project Case Study: Energiesprong UK Comfort Plan*™. Innovate UK / DESNZ. Published April 2025. Available at: <https://assets.publishing.service.gov.uk/media/68834c16cec9ccd515ae092c/Energiesprong.pdf>

scheme management infrastructure that de-risks lending at scale. The same origination advantage applies to the Boiler Upgrade Scheme and to the comfort fee offer. The programme does not simply add a delivery mechanism to each instrument; it materially improves the performance of each one of its channels.

The comfort fee works well across all rental tenures. For private landlords and social housing providers alike, the split incentive problem, where the landlord bears the cost of works but the tenant receives the energy bill benefit, has historically been a barrier to landlord investment. The comfort fee resolves this by converting the tenant's energy spend into a service charge paid to the SPV: the landlord bears no upfront cost and the tenant pays less than their pre-retrofit bill. The incentive structure works for both tenure types, though the motivation differs: private landlords respond to return and compliance drivers (EPC minimum standards), while social housing providers are additionally motivated by housing quality obligations and the potential for top-up grant funding through the Warm Homes Social Housing Fund, which can materially improve programme economics in social housing-heavy neighbourhoods.

Programmes offering genuine consumer choice achieve materially higher participation rates than single-option schemes. Households respond differently to risk, upfront commitment, and monthly obligation: some will prefer the certainty of outright purchase; others the cash-flow predictability of the comfort fee; others access to the consumer loans scheme. A multi-route architecture captures a wider share of the households in any given neighbourhood, improving programme economics for all participants.

5.4. Why the consumer offer works: the case for equity and public risk absorption

The three-route architecture also addresses a structural problem with consumer finance that is often overlooked in policy design. For a significant proportion of households, particularly those in the most energy-inefficient properties where retrofit need is greatest, even zero-interest finance leaves them net worse off: the loan repayment obligation, even at zero interest over a realistic term, will in many cases exceed the energy bill saving generated by the measures financed. The net effect is household impoverishment, not improvement. Rational households will, and should, decline finance that makes them poorer. This is not a behavioural problem or an awareness gap; it is structural. The comfort fee resolves this by making the service charge contingent on delivering a bill saving: residents pay less than their pre-retrofit bill, or they do not pay. The fund absorbs the performance risk that individual households cannot bear.

The three-route architecture also creates a self-selection mechanism for the able-(and willing)-to-pay market. Households who can fund upfront costs, through cash, remortgage, or equity release, do so, reducing the CDEL FT equity deployed per programme and allowing the same public capital allocation to reach more homes. Each pound of CDEL FT deployed in a three-route programme therefore reaches more homes and generates more supply chain volume than a comfort-fee-only model would achieve. The capital efficiency argument for the multi-route architecture is as important as the accessibility argument: it means the national programme can do more with the same public capital envelope.

One design gap requires government attention before the fund can operate at scale: there is currently no mechanism for neighbourhood programme SPVs to make collective BUS applications or to originate

consumer loans on behalf of enrolled households. Both instruments are designed for individual household access. Energiesprong Comfort Plan research (DESNZ-funded, April 2025) confirms that the neighbourhood model only becomes financially viable at a minimum of approximately 400 enrolled homes cumulatively. Individual household access to both instruments is a practical constraint on reaching that threshold. DESNZ should treat collective enrolment mechanisms, enabling SPV-level BUS applications and loan origination, as a priority programme design task alongside the fund structure.

5.5. The West Midlands as national demonstration

The West Midlands has the strongest institutional foundation for a National Demonstrator Allocation of any region in England. WMCA's Net Zero Neighbourhood programme provides proof-of-concept at project level, with early pilot areas including Castle Vale in Birmingham and Brockmoor in Dudley. Work under the Prospering from the Energy Revolution (PFER) programme established foundational thinking on aggregated local energy investment in the region which has been further built upon in the Local Net Zero Accelerator programme. Energy Capital provides the institutional home for the delivery function, and the Integrated Settlement provides the grant capital to anchor the fund's public investment layer.

The NETF is not a West Midlands regional fund. It is a national investment fund, capitalised at national scale, with regional programme allocations and regional delivery. WMCA is seeking the role of anchor National Demonstrator, the first and most developed regional programme within the national fund, with the fund designed from the outset to accommodate further National Demonstrators and an Open Allocation for other qualifying regions as their pipelines mature. The national NETF operates in two modes. The National Demonstrator Allocation is a ring-fenced capital commitment to an initial cohort of regions that will work through a defined set of proof points on behalf of the whole programme, generating the structured evidence base that makes wider replication possible at full confidence. The Open Allocation is available to any qualifying region or local authority with the delivery capability, existing programme pipeline, and institutional readiness to engage with the fund as a delivery partner. Together, the two tiers mean the fund can start with the most advanced regions and grow without re-litigating the core design each time a new region comes in. The national programme would answer five proof points that cannot be resolved in advance of demonstrator delivery: resident response to the consumer offer across household types and tenures; institutional debt terms and the minimum equity cushion required to attract private co-investment; the property-linked payment mechanism, including the Local Land Charge pathway, enforceability on property sale, and interaction with mortgage lending; pricing approaches across tenures and neighbourhood archetypes; and supply chain response to programmatic, multi-year demand. WMCA requests DESNZ engagement to confirm the National Demonstrator Allocation and initiate joint fund design, as set out in Section 9.

6. The Fund as Integrating Delivery Architecture

A neighbourhood programme does more than coordinate delivery. It coordinates capital. Multiple government funding streams are currently designed for the same homes but cannot reach them through the same channel. Most homes therefore receive either one intervention or nothing. The

Neighbourhood Energy Transition Fund provides the integrating delivery architecture that allows these streams to work together in the same place, at the same time, for the same households.

6.1. Existing grant programmes as the base layer

Existing grant programmes can be drawn down as the base layer of the gross capital stack within each neighbourhood scheme, reducing the net financing requirement before the fund provides repayable capital for the balance. The Warm Homes: Social Housing Fund and RP matched funding applies to social rented homes within the programme area. Warm Homes: Local Grant and the proposed successor programme from 2027/28 apply to fuel-poor qualifying households across all tenures. The Boiler Upgrade Scheme applies to owner-occupiers and private rented properties installing heat pumps.

The BUS is particularly significant in this context. The scheme has been extended, with annual installation rates below the level originally targeted and substantial CDEL budget remaining to deploy. Area-based delivery through a neighbourhood programme could provide a bulk origination pathway, households enrolled collectively rather than applying individually, that the BUS currently lacks. This would require DESNZ to design a mechanism for programme-level BUS deployment that does not yet exist. The West Midlands demonstrator is the appropriate vehicle to develop and test it, and the demand-side benefits of doing so are material for a scheme where individual uptake has proved the binding constraint.

6.2. Two Warm Homes Fund instruments in the same neighbourhood

Beyond existing grants, two Warm Homes Fund Financial Transaction instruments can be deployed in the same neighbourhood simultaneously. The £2.7bn financial innovation pot within the £3.3bn provides the equity capital deployed at fund level. The £2bn consumer loans programme (£1.7bn FT plus £300m CDEL grant) is available as a consumer payment route within each SPV, with the neighbourhood programme acting as the origination and management channel. Neither instrument is currently designed to work alongside the other or alongside existing grant programmes. The Neighbourhood Energy Transition Fund structure makes them do so, using the capital stack to deploy grant, fund equity, and consumer loans within a single coordinated programme.

The SPV structure also creates a mechanism for community equity participation. Residents and community groups within the programme area can be offered a stake in the SPV itself, investing alongside the public equity and private debt to share in the financial returns generated by the programme over its operational life. Models such as those operated by Abundance Investment provide a tested framework for this type of community co-investment. Community equity serves multiple purposes: it gives residents a direct financial stake in the programme's success; it strengthens local acceptance and long-term engagement; and it diversifies the capital base of each SPV, reducing the public capital required per programme. Community equity stakes are expected to be small in the initial demonstrator phase but can grow as the model matures and investor confidence in the revenue streams is established.

6.3. The Local Power Plan and the Warm Homes Plan: overlapping scope

The Local Power Plan and the Warm Homes Plan were developed as distinct policy programmes, each with its own ministerial lead and delivery team. In practice their scopes are not two separate circles; they are a Venn diagram. The Local Power Plan incorporates Smart Local Energy Systems: integrated neighbourhood-scale programmes combining local generation, storage, demand management, and community ownership of distributed energy assets. The Warm Homes Plan is focused on reducing energy bills, including domestic rooftop solar and battery, building fabric measures, and supporting households to access affordable low-carbon heat. Area-based decarbonisation is precisely where these two programmes overlap: a neighbourhood retrofit scheme that also installs rooftop solar, community batteries, and grid flexibility assets serves the objectives of both simultaneously.

Where neighbourhood schemes include these generation and storage components alongside fabric retrofit, the LPP and the Warm Homes Fund could invest in the same SPV, with the Neighbourhood Energy Transition Fund structure providing the regional aggregating vehicle that both programmes require. LPP capital reaches organised neighbourhood programmes rather than isolated projects. WHF capital is accompanied by generation assets that improve the whole-system economics of each scheme. And both programmes benefit from the community ownership and stewardship model that the SPV structure enables. WMCA is already a named GBE partner authority under the Local Power Plan and is seeking agreement with GBE to trial and deliver area-based approaches. The demonstrator should be designed from the outset to test this co-investment model and to generate evidence on how the two programmes can be most effectively aligned at the point of delivery.

7. The Case for CDEL Financial Transactions from the Warm Homes Plan

7.1. The Warm Homes Plan Financial Transactions allocation

The Warm Homes Plan, published January 2026, commits £5bn of Financial Transactions, (repayable, capital-preserving instruments) rather than conventional grants, with the stated intention that investment is recycled over time. Of the £5bn: £1.7bn is allocated to low-cost consumer loans (paired with £300m CDEL grant to form a £2bn consumer loans programme); £600m is directed at social housing retrofit; and £2.7bn is described as being for financial innovation in the retrofit sector. The latter two together, £3.3bn, are the pot within which the NETF equity instrument would sit. This is a distinct allocation from the separate £2.7bn Boiler Upgrade Scheme budget, with which it should not be confused.

This allocation constitutes explicit government recognition that the financing architecture for residential retrofit must go beyond grant. It is the pot from which this proposal seeks an allocation, and the West Midlands model is a direct operational response to the intent behind it.

7.2. Why equity rather than debt

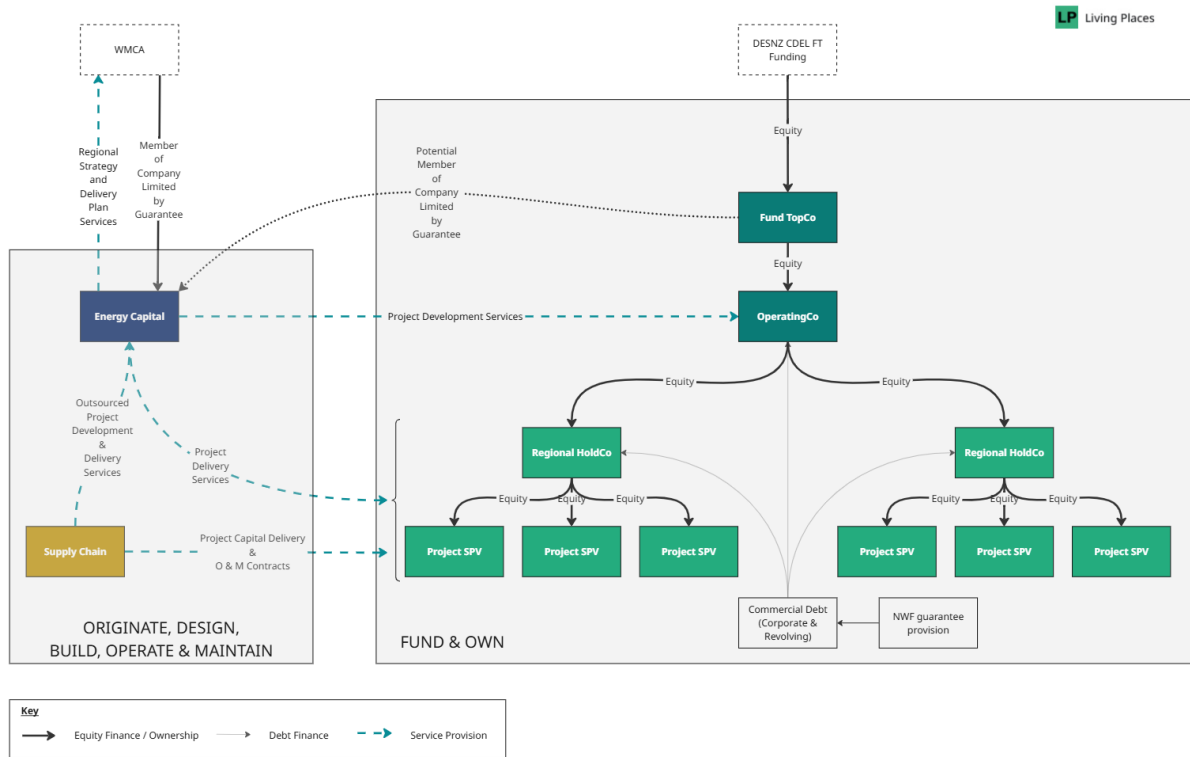
CDEL Financial Transactions can be deployed as either loans (senior or subordinated debt) or equity-aligned instruments. For this programme, equity is the more appropriate instrument for several reasons:

- Senior debt creates fixed repayment obligations. For SPVs in the early stages of a national demonstration, where revenue assumptions are being tested and technology performance is being proven, locking in debt service ahead of revenue certainty increases delivery risk and may deter private co-investors from participating alongside public capital.
- Equity absorbs first-loss risk. By taking an equity position, CDEL FT capital sits below private debt in the repayment waterfall, making the SPV significantly more attractive to private sector debt providers. This is the mechanism by which a relatively modest equity injection mobilises a larger private capital layer.
- Equity aligns return with performance. An equity instrument rewards the programme for outperforming its base case assumptions, creating incentives for operational efficiency and cost reduction that a fixed-rate debt instrument does not.
- Equity does not require repayment on a fixed schedule. This is particularly important given the long operational lives of retrofit assets, typically 20–30 years (extendable with appropriate asset maintenance and replacement contributions factored in), and the time required for revenue streams to mature.

This approach is consistent with the FT Control Framework's explicit provision for concessional or patient returns where a clear market failure justification exists. The market failure case is set out in Section 4.2.

DESNZ's own Call for Evidence (footnote 11) acknowledges that local and strategic authorities cannot be direct recipients of Financial Transactions without balance sheet impact. The proposed structure, illustrated below, addresses this directly: DESNZ would deploy CDEL FT as equity into an independent fund holding vehicle, with WMCA acting as programme sponsor rather than equity investor, keeping the capital off WMCA's balance sheet and within a structure designed for repayable deployment. This is not a workaround; it is the solution to the structural constraint that DESNZ has itself identified as the primary challenge for area-based FT deployment.

Figure 1: Illustrative Fund Structure



7.3. The capital evolution trajectory: from public demonstration to private market

The equity structure enables a capital evolution trajectory that a debt deployment cannot achieve. The programme is designed to move through three phases, with the mix of public and private capital shifting progressively as the model is demonstrated and investor confidence is established.

Phase 1 – Demonstration. Grant base layer (non-repayable) combined with CDEL FT equity (first-loss, concessional returns), limited private institutional debt, and small community equity stakes. CDEL FT does the heavy lifting because the model is unproven: consumer uptake rates, service charge revenue performance, and supply chain cost reduction are all uncertain and must be demonstrated before private capital will commit on acceptable terms.

Phase 2 – Scaling. As consumer uptake rates are proven, service charge income streams are demonstrated, and economies of scale in delivery are established, patient private institutional debt becomes available alongside the public equity on improving terms. Debt leverage increases, reducing the public capital required per unit of delivery. CDEL FT capital deployed in Phase 1 begins to be recycled into new programmes or new regions. Community equity stakes grow as investor confidence builds.

Phase 3 – Maturity. Private sector patient equity, infrastructure funds, pension funds, impact investors, participates alongside or refinances the public equity. Grant programmes remain for the deepest interventions throughout. CDEL FT is progressively recycled to new regions as the Open Allocation

expands. Public involvement shifts from capital provision to governance, standard-setting, and replication support.

This trajectory is only achievable if the Phase 1 instrument is equity, not debt. A debt deployment would generate a return on a fixed schedule but would not create the track record, governance standards, or demonstrated revenue streams that attract private equity in Phase 3. The equity structure is not a concession to risk: it is the mechanism by which public capital creates the conditions for its own progressive replacement.

7.4. Why now?

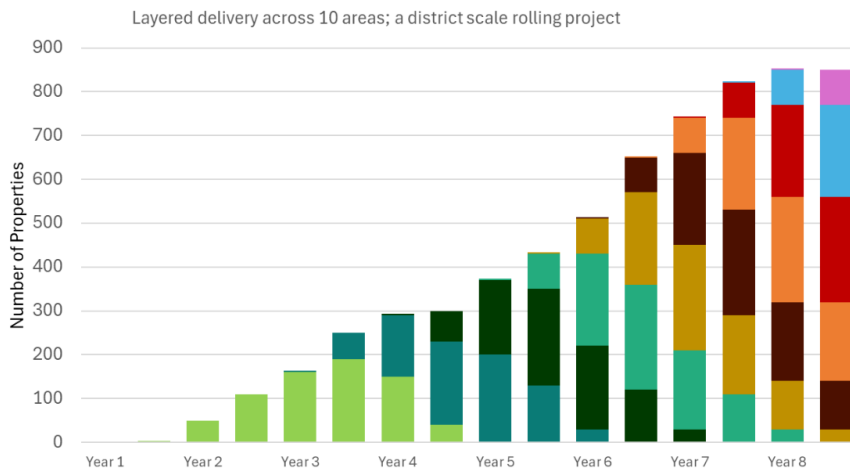
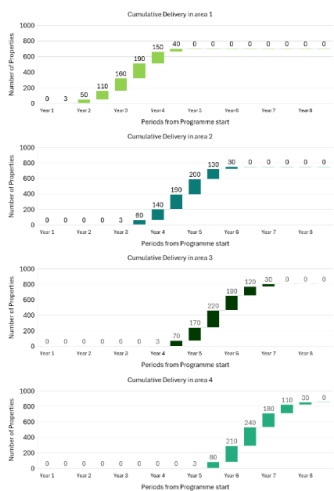
Waiting for pipeline development to be 'ready' before providing capital funding, reflects a misunderstanding of how area-based retrofit programmes are built and delivered. To advance portfolios of area-based projects into deployment requires upfront and committed capital allocation with project development funding embedded as a top slice of capital, to give the certainty needed for residents to sign up, and the concrete signal for mobilisation of the supply chain.

While much work has been done nationally to identify potential area-based retrofit demonstrators, not least in the West Midlands, these projects are generally not quite ready for capital deployment. A potential concern therefore is that this programme might be more suited to CDEL FT deployment in 12 to 18 months when the project pipeline is more mature. But this misses the point of how these projects are designed and delivered. Area-based programmes are perpetually 12-18 months away from needing capital funding, until they have capital funding.

Advancing the area-based approach has been held back by stop-start RDEL grant funding and the strain on local government finance which doesn't acknowledge a fundamental issue in how the design and delivery of area-based retrofit works in practice. Those two elements (design and delivery) do not neatly follow each other. There is not an isolated RDEL-funded design phase which leads to a Full Business Case which then unlocks a subsequent CDEL or CDEL FT funded delivery phase, rather the two are interwoven. Sign up to a programme by residents is driven by the knowledge that the programme can actually deliver. If the capital is not there for delivery the engagement process is an empty discussion and many communities have been burnt by this process of overpromising engagement with ultimately limited delivery.

The reality of running a programme is that desktop analysis is carried out on potential technical solutions for a whole neighbourhood at once, engagement activity ramps up and early adopters within the community are identified that can be aggregated into delivery cohorts, detailed retrofit assessments are carried out per cohort and then delivery is commenced while the engagement and design process continues with the rest of the neighbourhood. Delivery happens in practice in wave after wave of cohorts across the area and then subsequently into neighbouring areas, creating a rolling design and delivery programme as illustrated below, which would be replicated across the region.

Figure 2: Rolling Delivery Programme



By providing CDEL FT funding as equity into the fund vehicle the combined design and delivery work can be accelerated in the knowledge that the capital funding is there to deliver and scale up. The conversation shifts from “what we could do” to “what we will do”. The West Midlands Net Zero Neighbourhood programme provides a number of existing pilot projects where technical design and community engagement is already well underway. In Brockmoor in Dudley, c. 45 homes have already been delivered and an (under-funded) phase 2 targeting 600 homes is underway. In Castle Vale in Birmingham detailed techno-economic and investment modelling has been done on the deployment of solar, battery, fabric and heat decarbonisation in 850 homes. The projects are ready to take capital imminently, but that momentum is at risk of petering out.

The West Midlands programme has reached precisely this inflection point. The institutional knowledge, community relationships, and supply chain partnerships that make a programme like this possible are not preserved in a holding pattern. They are actively maintained by people doing work. Without a confirmed capital commitment, programme team contracts expire, experienced staff move to other opportunities, community goodwill built through engagement erodes, and supply chain partners redirect capacity elsewhere. The cost of rebuilding these relationships and capabilities is substantial and largely invisible in any formal business case. The West Midlands programme has reached a stage where this risk is real and immediate. Whilst at the same time, there is an immediate opportunity. A proportion of the Warm Homes Plan Financial Transactions may be deployable in the current financial year, ahead of the main deployment window from April 2027. The West Midlands programme, with detailed technical and investment modelling already complete and pilot SPVs ready to form, is better positioned than any other programme in England to deploy capital productively in that window, accelerating early cohort delivery while the full fund structure is being finalised.

7.5. How much?

The rolling programme model illustrated above, combined with the initial fund stack modelling, suggests that each delivery programme originating in a single location would ramp up to deliver 2,000 homes

across the first 5 years and create the momentum for a further 4,500 homes delivered in the following 3 years.

Providing the CDEL FT funding for this first 5 year phase for 10 such delivery programmes, distributed across the region, would deliver 20,000 homes in total. Based on our initial fund stack modelling this would constitute a £640m gross capital programme made up of £210m of existing grant programme funding (WH:SHF, WH:LG, BUS), £90m of leveraged private debt funding, unlocked by £340m of CDEL FT. These figures are before any allocation to the project development facility, which would be funded from a topslice of the CDEL FT commitment.

The NETF is designed as a national fund from the outset, not a West Midlands fund that evolves into a national one. The West Midlands programme is the anchor National Demonstrator allocation within that national structure, the most advanced, and the one that will generate the primary evidence base, replication templates, and investor track record. Other qualifying regions will access the fund as further National Demonstrators or through the Open Allocation as their pipelines mature, working with the same fund governance, legal frameworks, and SPV template developed through the demonstrator phase. This approach supports a proportionally larger aggregate allocation from the £3.3bn innovative finance and social housing pot and produces a more complete national evidence base than any single demonstrator could provide.

7.6. The funding stack

Capital Layer	Source and Role
Grant (non-repayable)	Warm Homes: Social Housing Fund (plus RP matched funding), Warm Homes: Local Grant, the proposed successor programme from 2027/28, and Boiler Upgrade Scheme. Covers the highest-cost interventions: deepest fabric improvement, social housing, fuel-poor households. Not repayable; absorbed by the programme.
Equity - CDEL FT (concessional)	Patient, equity-aligned FT capital providing the risk-absorbing foundation of the capital stack. Returns are concessional in the base case; above-gilt in the upside case.
Debt - private sector (leveraged)	Institutional debt, potentially supported by NWF guarantee, sitting above the equity layer. Limited initial debt leverage in the base case; leverage approaching 1:1 in the upside case.

Two financial scenarios have been modelled:

- Base case: conservative income and cost assumptions, reflecting the uncertainties inherent in a first-of-kind demonstration. Equity returns are positive but below gilt yield; debt

leverage is limited at initial stages. This is explicitly consistent with the FT Control Framework's provision for concessional returns where market failure is being addressed.

- Upside case: capital economies of scale and improved operating performance, as the programme matures and supply chains respond to programmatic demand. Equity returns move above gilt yield; debt leverage approaches 1:1. This scenario demonstrates the self-sustaining trajectory of the model over time.

7.7. The leverage effect

The fundamental fiscal argument for equity-aligned FT over grant is leverage. Grant is consumed, £1 of grant delivers £1 of investment, with match funding requirements to date largely confined to registered social providers. Equity-aligned FT capital, by sitting below private debt in the capital stack, mobilises private co-investment. Even at limited initial leverage ratios, every pound of FT equity supports more than one pound of total investment. As the programme matures and performance is proven, leverage ratios improve, increasing the total investment deployed per pound of public capital, and the recycled FT capital can be redeployed into subsequent neighbourhood programmes.

7.8. ONS classification risk: Public Sector Corporation versus Central Government

The ONS sector classification of the fund vehicle is a material question for the fiscal case and should be addressed proactively. The structural options available and the detailed classification analysis – including the two-stage control and market producer test, the equity and CLG routes, and the specific questions for ONS pre-engagement – are set out in full in Section 8 (NETF Fund Implementation: Structural Options and the Financial Transaction Question). In summary: the TopCo must be structured to avoid being classified as Central Government, which we believe is possible. Otherwise there is a genuine question as to whether the deployment qualifies as an FT at all in National Accounts terms, which is why early informal ONS pre-engagement is an essential step before fund design is finalised.

7.9. Why this is credible: learning from what has not worked

The Green Deal is the obvious historical reference point. It failed for specific, structural reasons: high interest rates applied to individual household loans without supply chain coordination, no aggregation of demand, and a consumer proposition that did not adequately reflect the benefits. None of these structural features apply to this model.

The distinguishing features of this proposal are: concessional equity returns rather than commercial interest rates; neighbourhood aggregation rather than individual household loans; integrated supply chain contracting rather than fragmented installer markets; community governance of delivery vehicles; and the addition of DSO flexibility revenues that did not exist as a viable income stream when Green Deal was designed. These are not incremental improvements; they are structural differences in the model.

8. NETF Fund Implementation: Structural Options and the Financial Transaction Question

The NETF proposition depends on CDEL Financial Transaction capital being deployed into the fund vehicle and counting as a financial transaction in National Accounts terms. This section sets out the proposed fund structure, the classification argument that supports FT treatment, and the questions that should be put to ONS through informal pre-engagement before the structure is finalised. The analysis reflects our current understanding of the relevant frameworks and is the starting point for discussion with DESNZ, HMT and ONS rather than a definitive legal or accounting opinion.

8.1. The proposed fund structure

The proposed structure is a fund TopCo incorporated as a company limited by shares. Government deploys CDEL FT as majority equity via NWF as the designated Public Financial Institution. GBE, once its formal PuFI designation is confirmed, provides an alternative or complementary deployment route and may co-invest in programmes combining retrofit with local energy generation aligned with the Local Power Plan.

Four structural features are critical to the ONS classification argument:

Independent governance.

The TopCo's constitutional documents establish genuine operational independence from government: an independent board with a majority of non-governmental directors, investment decisions delegated to a commercially contracted fund manager with an independent investment committee, and no government right to direct individual investments or veto programme parameters. Government's legitimate interests, capital return, programme evidence, policy alignment, are protected through the shareholder agreement, not through board control. This independence is the structural distinction between the NETF TopCo and the policy-directed development banks (NWF, BBB, DBW) that were reclassified to Central Government by ONS in September 2025 because government directed their investment policy.

Commercial management fee structure.

A commercially contracted, independent fund manager charges management fees against assets under management at rates consistent with comparable infrastructure and impact funds (1–2% per annum of committed capital). These fees are set by reference to the competitive market, not determined by policy, and constitute sales at economically significant prices in ESA 2010 terms. The fee structure is designed to cover 100% of TopCo operating costs, with fees above operating costs subject to a cap or shared return structure and surplus recycled to the programme rather than accumulated as profit.

Private sector equity co-investment.

The fund structure explicitly contemplates a minority private sector co-investment stake, and live engagement with at least one institutional investor is underway. Private sector equity is not required at inception, the demonstration phase exists to generate the track record that will attract private sector

equity over time, progressively diluting the government stake. Where a private sector co-investor does participate from inception, its stake materially strengthens the ONS classification argument by introducing a private sector principal with substantive governance rights.

Private institutional debt.

A modest amount of private institutional debt is raised at the Operating Company level, subordinate to the equity and not government-guaranteed. UK banks have engaged with the programme in relation to this layer. This is not a condition of the ONS classification but strengthens the commercial credibility of the model.

8.2. The ONS classification argument

The ONS classification test proceeds in two stages. The structure above is designed to support a Public Financial Corporation classification under either route.

Stage one: control test

Under ESA 2010, control is assessed by reference to the ability to direct general corporate policy. Board independence and the delegated investment mandate weaken the control signal in all cases. Where a private sector co-investor participates, that stake further weakens it by introducing a private sector principal whose consent is required for constitutional changes. Where private sector equity is present from inception, the entity may be classified as private sector at stage one without proceeding to the market producer test. Where government equity constitutes all or substantially all of the initial capital, the governance mitigations are the primary argument, and the market producer test at stage two becomes the principal classification route.

We acknowledge this involves subjective judgement and that a government majority equity stake creates a strong prior towards a control finding. The structural mitigations are designed to make a non-control finding available to ONS as a defensible conclusion, not to guarantee it.

Stage two: market producer test

If ONS finds government control, classification depends on whether more than 50% of operating costs are covered by sales at economically significant prices. The management fee structure is designed to meet this test decisively: fees cover 100% of operating costs, are set at commercial market rates, and are charged against Assets under Management in the standard manner of commercial asset managers. Prices are economically significant — set by reference to the competitive market for infrastructure fund management, not determined by policy.

The precedent

The structure has a clear precedent. When the UK government held an 84.4% majority stake in NatWest Group (formerly RBS) from October 2008, ONS classified the entity as a Public Financial Corporation — not Central Government — because NatWest remained a market producer despite majority government ownership and control. Lloyds Banking Group was similarly classified as a PFC during the period of significant government shareholding from 2009 to 2014. These precedents establish that majority

government equity ownership does not preclude PFC classification where the market producer test is met. Under either classification route, the NETF TopCo sits outside general government in National Accounts terms — the necessary condition for FT treatment.

8.3. The four conditions for FT treatment

For a deployment of CDEL FT from NWF into the NETF TopCo to count as a financial transaction, all four of the following conditions must hold:

Condition	Requirement
Condition 1	The deploying entity must be a general government body in ONS terms. NWF has been classified by ONS as Central Government. This condition is met. If GBE were the deployer, its ONS classification has not yet been determined and this condition would be uncertain.
Condition 2	The receiving entity, the NETF TopCo, must be outside general government: classified as either a public sector corporation (PSC) or private sector. If the TopCo is classified as Central Government, the deployment consolidates out of the National Accounts as an intra-general-government transfer. No financial asset is recognised, the capital scores as expenditure, and the FT instrument fails entirely.
Condition 3	The government’s relationship with the TopCo must either (a) not constitute control in ESA 2010 terms, in which case the entity is private sector and Condition 2 is met; or (b) if control is found, the entity must earn more than 50% of its income from market sales, in which case it is classified as a PSC and Condition 2 is met. If control is found and the market producer test is not passed, the entity is classified as Central Government and Condition 2 fails.
Condition 4	The deployment must meet the Financial Transaction Control Framework requirements: delivered by a designated public financial institution (NWF qualifies), accompanied by a business case and FT checklist, and with a credible returns basis (concessional returns are explicitly permitted where market failure justification exists).

Conditions 1 and 4 are within our control, given NWF’s involvement and the market failure case already set out in Section 4. The analysis above addresses Conditions 2 and 3. A full structural proposition and classification argument is set out in an accompanying note (ONS Classification and FT Eligibility, Living Places / WMCA, June 2026).

8.4. Questions for ONS pre-engagement

The following specific questions should be put to ONS through informal pre-engagement before the fund structure is finalised. ONS will not pre-commit to a classification, but early engagement reduces the risk of designing a structure that fails the classification test after capital has been committed.

Question 1. Under Route 1b: would a fund TopCo that earns more than 50% of its operating costs from commercially-priced management fees charged to SPVs be considered a market producer under ESA 2010, even if government holds majority equity?

Question 2. Under Route 2: would a CLG with NWF as one of multiple members – including at least one non-governmental body – be considered under government control under ESA 2010 criteria? What membership structure and constitutional arrangements would be required to break the control finding?

Question 3. Under Route 2: is a management fee structure covering more than 50% of operating costs sufficient to meet the market producer test in a CLG with an asset lock, given that surpluses are recycled into further programme investment rather than distributed?

Question 4. On the fundamental FT question: if the TopCo is classified as Central Government rather than PSC or private sector, does the deployment of CDEL FT capital into it qualify as a financial transaction in National Accounts terms, or is it reclassified as a capital grant? WMCA understands this question is not yet resolved among officials and requests DESNZ facilitate ONS and HMT engagement as a priority.

Question 5. Where NWF deploys CDEL FT as equity into the TopCo and separately provides a commercial guarantee product on private sector debt raised at the Operating Company level, would the guarantee be treated as a separate CDEL FT deployment eligible for recycling, or would it be scored as contingent CDEL DEL expenditure at the point of issuance? Would the combination of equity and guarantee affect the ONS sector classification of the TopCo?

9. Recommended Next Steps

The following next steps relate to WMCA's role as anchor National Demonstrator within the national NETF. WMCA has invested four years in building the institutional infrastructure and project pipeline through the Local Net Zero Accelerator and is the most advanced region in England in terms of delivery readiness. The national fund is designed to accommodate other qualifying regions as further National Demonstrators or through an Open Allocation as their pipelines develop.

WMCA requests the following from DESNZ:

- **CDEL FT allocation:** A National Demonstrator Allocation of approximately £340m CDEL Financial Transactions from the £3.3bn Warm Homes Plan innovative finance and social housing pot to equity-capitalise the NETF's West Midlands programme.
- **Fund design:** Engagement in a joint fund design process involving WMCA, Living Places, DESNZ, GBE and NWF to agree on the capital stack structure, governance design, FT compliance framework, and the criteria and mechanism for National Demonstrator Allocations and Open Allocation for qualifying regions.
- **Payment mechanism:** Seek cross-departmental DESNZ/MHCLG agreement to pursue a property-linked payment obligation (PLPO) via Ministerial order under Section 1(1)(e) of the Local Land Charges Act 1975 for the demonstrator phase, enabling the payment mechanism to be tested without primary legislation. Legal analysis commissioned by Living Places from Burges Salmon LLP confirms this pathway is viable. The PLPO mechanism is one of the five

core proof points of the National Demonstrator phase and must be confirmed as a cross-departmental priority before FBC stage.

- **ONS classification:** Support for early and informal ONS pre-engagement to establish the fund's likely sector classification before formal structuring proceeds.

WMCA proposed commitments:

- **Expanded Pipeline Development Facility:** scope additional resource requirements, building on existing retrofit managed support capacity and capabilities and redeploying resources appropriately.
- **Pipeline identification:** undertake a systematic identification of areas with more favourable financial characteristics for this model, in addition to the existing Net Zero Neighbourhood cohort, which has focused on fuel-poor areas where comfort upgrade rather than bill saving may be the primary consumer benefit. These include areas with lower incidence of underheating (where energy bill savings, not just comfort upgrades, drive the consumer offer), more homogeneous housing archetypes with high energy saving potential per pound of capital invested, and stronger potential for grid flexibility revenue generation.
- **Advance early capital deployment:** test the legal, governance and financial structures for early projects, which could include Castle Vale (Birmingham) and Brockmoor (Dudley), in advance of full fund launch.
- **Supply chain engagement:** test market appetite and indicative pricing for a programmatic, multi-year delivery contract.

10. Key Learnings from the National Demonstration

The Neighbourhood Energy Transition Fund is designed from the outset as a national demonstration: a structured evidence-generating programme with explicit design for replication. The National Demonstrator phase is organised around five primary proof points – the questions that cannot be answered in advance of demonstrator delivery and whose answers are required before the Open Allocation can operate at full national confidence. The broader learning framework below builds on these five proof points with additional evidence objectives that will strengthen the national programme over time. The following are the questions the programme is designed to answer:

- **Resident response to the consumer offer:** what proposition, pricing, comfort framing, service model, tenure arrangements, drives uptake across different household types? What are refusal rates, and what neighbourhood-level factors influence them? How does resident response vary between fuel-poor cohorts (where comfort upgrade rather than bill saving dominates) and broader market cohorts?
- **Investor engagement and debt leverage terms:** at what terms and with what credit enhancements will institutional debt providers participate alongside public equity? What is the minimum equity cushion required to attract private co-investment? Does a NWF guarantee materially improve terms, and if so by how much?

- **The payment mechanism:** testing the Local Land Charge mechanism, established via Ministerial order for the demonstrator phase, with potential to scale nationally without primary legislation, including its enforceability on property sale, consumer acceptance, interaction with mortgage lending and property valuation, and collection mechanics. This is the mechanism most likely to resolve the upfront cost barrier for owner-occupiers at scale. Legal analysis commissioned by Living Places from Burges Salmon LLP for the Bristol Mission Net Zero programme identified this as the most practical near-term pathway. Soft testing with two high-street mortgage lenders found the mechanism potentially acceptable, an important early signal of lender appetite. The demonstrator is designed to generate the evidence base needed for national roll-out.
- **Pricing approaches:** what service charge or comfort pricing structure is acceptable to households, recoverable over the asset life, and sufficient to support the financing model across different neighbourhood archetypes? How do pricing approaches need to differ between social housing, private rented, and owner-occupied tenures?
- **Supply chain response to programmatic demand:** does a guaranteed multi-year pipeline in fact drive cost reduction? By how much, over what timescale, and under what procurement conditions? What investment is the supply chain willing to make in workforce, standardisation, and equipment procurement in response to demand certainty?
- **DNO engagement and flexibility revenues:** can neighbourhood-scale smart assets generate the flexibility income assumed in the financial model? What commercial and regulatory structures are required, and what is the realistic timeline for these revenue streams to become material?
- **Multi-tenure delivery governance:** what consent mechanisms, legal structures, and governance arrangements work across mixed-tenure neighbourhoods? How are decisions made and disputes resolved when social housing, private rented, and owner-occupied properties are included in the same programme?
- **Replication readiness:** which elements of the model, legal structures, SPV templates, procurement frameworks, community engagement approaches, financial models, can be standardised and transferred to other combined authorities without significant re-design? What are the minimum institutional prerequisites for replication?

WMCA proposes to work with DESNZ, as we have through the Local Net Zero Accelerator, to share learnings and iterate the programme. Consideration could be given to a formal follower cohort of regions with additional allocated capital to replicate the approach. WMCA and Living Places are actively engaged with a number of authorities already, who are exploring parallel programmes informed by the West Midlands model, and would be willing to provide active support to any authority seeking to replicate the approach.

Appendix A: CDEL Financial Transactions - A Primer

What are CDEL Financial Transactions?

Capital Departmental Expenditure Limit Financial Transactions (CDEL FT) is a specific category of public capital spending used to provide loans, equity injections, or other repayable finance to organisations outside central government. Unlike conventional CDEL grant, FT capital must be repaid to HM Treasury, either as loan repayments or dividend income, and is therefore described as ‘recycled’ rather than consumed. FT is scored against the Public Sector Net Financial Liabilities (PSNFL) measure rather than Public Sector Net Borrowing (PSNB), reflecting its asset-creating nature.

FT capital is used across a range of government programmes: the student loans system, the British Business Bank, and, most relevantly for this proposal, elements of the National Wealth Fund, Great British Energy and Warm Homes Plan financing. It has been allocated by DESNZ for retrofit precisely because the government recognises that grant alone cannot mobilise private capital at the required scale.

Key constraints relevant to this proposal

Constraint	Implication for this proposal
Must be repayable	The fund structure must include a credible basis for capital return to HM Treasury, even if returns are concessional. The base case financial model provides this basis; the equity structure preserves the recycling logic.
Cannot be used as guarantee	FT budget cannot guarantee third-party private sector borrowing. NWF guarantee instruments are a separate facility and require separate engagement with NWF.
Concessional returns permitted	The FT Control Framework explicitly permits below-gilt returns where a clear market failure justification exists. Section 4.2 provides this justification.
ONS classification matters	Whether the fund vehicle’s ONS classification allows CDEL FT deployment to count as a financial transaction in National Accounts terms is the central structural question in fund design. See Section 8 for the full analysis of structural routes and ONS pre-engagement questions.
Recycling obligation	Returned capital reverts to HM Treasury unless specific arrangements are made. Fund design should address the mechanism for redeployment of recycled capital into subsequent neighbourhood programmes.

Constraint	Implication for this proposal
Equity vs debt	FT can be deployed as either equity-aligned instruments or long-tenor subordinated debt. The case for equity and the two structural routes (equity into a company limited by shares, or subordinated debt into a CLG) are set out in Section 8.

Why this is an appropriate use of FT

The Warm Homes Plan’s explicit allocation of £3.3bn of FT for retrofit investments and innovative finance reflects a government determination that the financing architecture must go beyond grants. Area-based retrofit delivered through a Neighbourhood Energy Transition Fund meets the FT deployment criteria: it addresses a well-evidenced market failure; it generates partially self-financing cashflows that provide a basis for capital recovery; it creates long-term economic and social assets; and it mobilises private co-investment that would not occur without the public equity anchor. The concessional nature of returns in the base case is not a weakness of the model but a feature of any appropriate first-of-kind national demonstration, and one that the FT Control Framework explicitly accommodates.

Appendix: Complete Question Register

This register records WMCA's treatment of all 70 questions in the Call for Evidence. Questions addressed in this submission are cross-referenced to the relevant section. Questions not addressed substantively include a brief explanation.

✓ *Answered in full or substantially*

○ *Partial response*

– *Not answered in this submission (reason given)*

Section 1: Strategic Case, Aims and Scope

✓ **Q1:** Answered in full. WMCA agrees with assessment and adds demand-side, complexity, two-level structure, and Treasury/WHF tension points.

✓ **Q2:** Answered in full. Five structural factors limiting green finance uptake.

✓ **Q3:** Answered in full. Two-level instrument analysis, capital evolution trajectory, lender contribution, ONS classification.

✓ **Q4:** Answered in full. Tenure-neutral, income-inclusive consumer payment architecture.

✓ **Q5:** Answered. WMCA agrees with aims; adds that they can only be achieved through area-based delivery architecture.

✓ **Q6:** Answered. Technology scope broadly agreed; community-scale battery and programme-level assessment requested.

○ **Q7:** Brief response. WMCA's primary focus is existing stock; limited evidence on new build social/affordable housing specifically.

✓ **Q8:** Answered. Neighbourhood-scale integrated delivery programmes and non-domestic buildings as additional activity types.

✓ **Q9:** Answered from neighbourhood programme perspective: fragmented ownership, split incentives, small scale, absent products.

✓ **Q10:** Answered. Neighbourhood SPV as integrating vehicle for non-domestic buildings alongside residential.

✓ **Q11:** Answered. VCSE sector and public buildings (schools) are priority non-domestic groups for neighbourhood programmes.

✓ **Q12:** Answered. Fund holding vehicles and combined authority delivery arms should be added as eligible groups.

Section 2A: Owner-Occupiers

✓ **Q13:** Answered in full. Neighbourhood programme as origination architecture for consumer loans and multiple payment routes.

○ **Q14:** Not answered in this submission. WMCA does not hold direct evidence on how financial institutions currently use EPCs. However, WMCA notes that EPC improvement through neighbourhood retrofit directly benefits lenders' portfolio quality – see Q3 and Q20.

✓ **Q15:** Answered. Bulk origination channel as primary mechanism to encourage new market entrants.

✓ **Q16:** Answered. Tenor, asset-linked assessment, and bundled maintenance as priority loan attributes.

✓ **Q17:** Answered in full. Critical distinction between PLF (US PACE-style debt charge) and WMCA's property-linked payment obligation via Local Land Charge.

✓ **Q18:** Answered in full. Need is for institutional vehicle, legal mechanism, and demonstrator – not individual household debt products.

✓ **Q19:** Answered in full. Government's twofold financing role: cornerstone investment (concessional/upside returns) and lender engagement facilitation. Legislative enabling action addressed at Q20.

✓ **Q20:** Answered in full. Four policy barriers: legislative pathway, lender engagement/financial participation, consumer protection, benefit system interaction.

Section 2B: Landlords and Tenants

○ **Q21:** Not answered in full. WMCA's primary focus is area-based mixed-tenure delivery rather than individual private landlord finance. The split incentive between private landlords and tenants is addressed through the comfort fee model – see Q24-27. Private landlord-specific barriers (MEES compliance costs, individual creditworthiness) are not WMCA's primary evidence base.

○ **Q22:** Partially answered. RP deploys SHF grant and matched funding in parallel to fund co-investment via coordinated procurement. Structurally lower comfort fee for social tenants. RSH regulatory clarity as key barrier. See Q4.

– **Q23:** Not answered. WMCA does not hold direct evidence on risks of using public finance to incentivise above-minimum standards in new build social housing. See Q7 note on new build.

✓ **Q24:** Answered in full. Comfort fee model as primary revenue sharing instrument; Energiesprong evidence; risks and mitigations.

✓ **Q25:** Answered in full. Structural need for government finance; comfort fee cannot reach viable scale without public equity anchor.

✓ **Q26:** Answered in full. NETF as mechanism for fund-level deployment of government finance for revenue sharing.

✓ **Q27:** Answered in full. Three policy barriers: consumer protection regulation, benefit system interaction, social housing regulatory framework.

○ **Q28:** Not answered in full. WMCA does not hold direct evidence on Housing Association ownership structure variations. WMCA notes that the neighbourhood programme model is designed to accommodate different HA ownership structures within the same SPV; the relevant barrier is typically the HA balance sheet constraint rather than the ownership structure per se.

Section 2C: Local Government

✓ **Q29:** Answered in full. Five structural advantages of area-based investment funds; pipeline readiness argument.

✓ **Q30:** Answered in full. Structural market failure case; why private capital does not and cannot fill the gap without public anchor.

✓ **Q31:** Answered in full. NETF fund structure; capital stack figures; multi-region extension; WHF instrument integration.

✓ **Q32:** Answered in full. Four policy barriers including the central ONS/FT qualification risk and the 49%/NWF guarantee structure.

✓ **Q33:** Answered. Blended finance capital stack across three phases; LPP/WHF co-investment; GBE Pillar D. [Q33-36 to be completed in final draft – see Section 2C blended finance placeholder]

✓ **Q34:** Answered in placeholder. Same structural argument as Q30. [To be completed in final draft]

✓ **Q35:** Answered in placeholder. Same NETF structure as Q31 from capital structure angle. [To be completed in final draft]

✓ **Q36:** Answered in placeholder. Same barriers as Q32 plus subsidy control. [To be completed in final draft]

Section 2D: Electricity Market Participants

○ **Q37:** Not answered in full in this submission. WMCA has an active partnership with National Grid Electricity Distribution (NGED) on neighbourhood-scale grid flexibility, and NGED is an engaged partner in the NETF programme. WMCA notes that DNO barriers to finance are relevant to the NETF model (particularly for connection cost loans and substation upgrade financing) but the primary evidence on DNO financing constraints is held by NGED rather than WMCA. WMCA recommends that DESNZ engage NGED directly. WMCA's connection cost loan evidence is addressed at Q61-64 (heat networks) and Q8 (neighbourhood programme activities).

– **Q38:** Not answered. WMCA's programme focus is on low-carbon heat and electrification. Gas distribution networks are relevant to the long-term logic of planned gas grid decommissioning (which shapes the neighbourhood programme's heat decarbonisation sequencing) but WMCA does not hold direct evidence on GDN financing barriers.

- **Q39:** Not answered. WMCA does not hold direct evidence on energy supplier financing constraints. WMCA notes that energy suppliers benefit from the grid flexibility revenues generated by neighbourhood programmes (through demand response and smart tariff arbitrage) without contributing to programme costs – a market failure analogous to the mortgage lender issue raised at Q3 and Q20.
- **Q40:** Partially addressed. Energy as a service / solar subscription models are encompassed within the NETF’s comfort fee payment architecture and within the revenue streams captured by neighbourhood SPVs. WMCA’s evidence on these models is incorporated in Q24-27 and Q3 rather than addressed as standalone use cases.
- **Q41:** See Q40. Not answered as standalone use case.
- **Q42:** See Q40. Not answered as standalone use case.
- **Q43:** Not answered. WMCA does not hold direct evidence on government equity investment in energy as a service companies. WMCA notes that the commercial rooftop solar fund being developed under the WMCA LNZA contract (separate from the NETF) may be relevant to this question, but that evidence is commercially sensitive at this stage.
- **Q44:** Partially addressed at Q27 and Q36 (policy barriers for revenue sharing and blended finance respectively).
- **Q45:** Partially addressed. Connection cost loans are relevant to the NETF model where heat network connections are a component of the neighbourhood programme (see Q61-64). WMCA does not hold direct evidence on standalone network connection loan structures.
- **Q46:** See Q45. Partially addressed at Q61-64.
- **Q47:** See Q45. Partially addressed at Q61-64.
- **Q48:** Not answered as standalone. WMCA notes that the most significant policy barrier for network connection financing is Ofgem’s price control framework and the RAV treatment of connection assets – this is primarily a regulatory question rather than a financing design question.

Section 2E: Manufacturing, Supply Chain and Skills

- ✓ **Q49:** Answered. Neighbourhood-scale programmatic demand as the mechanism for bulk purchasing economies; supply chain cost reduction argument.
- ✓ **Q50:** Answered. Working capital need for supply chain transition from retail to programmatic delivery.
- **Q51:** Not answered in full. Government finance for bulk purchasing could operate through guaranteed multi-year delivery contracts within the NETF structure, which provide supply chain certainty without requiring direct equity investment in supply chain companies. [To be developed in final draft]
- **Q52:** Not answered in full. The primary policy barrier for bulk purchasing is the absence of a pipeline of funded, committed programmes that supply chains can invest against. This is addressed by the NETF capital commitment – see Q29-31. [To be noted in final draft]

- **Q53:** Not answered. Equity investment in retrofit supply chain companies is outside WMCA's primary evidence base. WMCA notes that at-scale programmatic demand is more effective than equity investment in driving supply chain cost reduction, as it creates market incentives for the private sector to invest in efficiency without requiring government to take equity positions in individual companies.
- **Q54:** See Q53. Not answered.
- **Q55:** See Q53. Not answered.
- **Q56:** See Q53. Not answered.
- **Q57:** Not answered. Skills loans are outside WMCA's primary evidence base. WMCA notes that the skills constraint on retrofit delivery is real and significant, and that programmatic demand certainty (from a funded NETF programme) is the most effective mechanism for incentivising supply chain investment in workforce training – skills investment follows demand certainty, not finance availability.
- **Q58:** See Q57. Not answered.
- **Q59:** See Q57. Not answered.
- **Q60:** See Q57. Not answered.

Section 2F: Heat Networks

- ✓ **Q61:** Answered in full. Residential demand aggregation problem; catch-22 resolved; heat/fabric/generation combined; long-term stewardship argument.
- ✓ **Q62:** Answered in full. Three mechanisms: connection cost loans, NETF/GHNF/NWF blended capital, HNTAS compliance via SPV governance.
- ✓ **Q63:** Answered in full. Two financing gaps: development capital and connection cost loan. Split incentive clarified as building owner/occupant.
- ✓ **Q64:** Answered in full. NETF SPV integrating heat, fabric and generation; heat supply as predictable income stream.
- **Q65:** Not answered in full. Key barriers include GHNF grant timeline uncertainty, HNTAS compliance cost, and heat network zoning lag. WMCA recommends Energy Capital supplement this submission on Q65.

Section 2G: Community Energy

- ✓ **Q66:** Answered in full. Same geography framing; GBE MOU; community equity/stewardship; LPP/WHF co-investment as option not prerequisite.
- ✓ **Q67:** Answered in full. Development finance gap; Energy Capital as project development function; community equity enabling genuine ownership.
- ✓ **Q68:** Answered in full. Multi-tranche SPV capital structure; government finance creates conditions for community investment.

- **Q69:** Not answered in full. Most significant barrier for community energy in neighbourhood programmes is the development financing gap (Q67-68) rather than regulatory framework per se.

Section 2H: Other Use Cases

- ✓ **Q70:** Answered in full. Multi-region national demonstration programme; GBE/LPP co-investment model. WMCA as anchor National Demonstrator with YNYCA, Bristol/WECA, London Councils and further regions through National Demonstrator or Open Allocation tiers.



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