



ENVIRONMENTAL, SOCIAL, & GOVERNANCE (ESG) CAPABILITY STATEMENT



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DELIVERING MEASURABLE SOCIAL VALUE TO UK COMMUNITIES

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Corporate Registration: X-GEN HOMES LTD | Company No: 16671334

1. ESG Alignment Policy Statement

At X-Gen® Homes Ltd, sustainability is the baseline of our structural engineering. This statement outlines our measurable compliance metrics under the **Public Services (Social Value) Act 2012**, proving how our factory production model directly enhances local council climate emergency goals, social welfare, and economic resilience.

2. Environmental Performance & Circular Economy Metrics

Low-Carbon Material Selection

Recycled Mineral Cladding: Our high-durability composite exterior cladding panels are composed of **38% recycled mineral and limestone content** bound in a stable polymer matrix. This diverts construction waste away from landfills and lowers embodied carbon metrics.

Timber Preservation: By replacing traditional timber-heavy structural paneling with ultra-light light-gauge galvanized steel frameworks and advanced fire-retardant polymers, we reduce raw commercial logging demands.

Zero-Waste Factory Policy: All component fabrication occurs inside a digitally optimized factory environment. Precision computer-aided manufacturing (CAM) reduces material off-cut waste to under 1.5%, with all excess steel and polymer elements collected and returned directly to the manufacturing loop.

Embodied and Operational Carbon Reductions

Fabric-First Efficiency: Our closed-cell insulation cores achieve thermal performance metrics that exceed Passivhaus benchmarks. This drastically curates long-term carbon outputs across the asset's entire lifecycle.

Minimized Logistic Impact: Volumetric panels are flat-packed or pre-assembled to optimize transport volumes. One delivery vehicle brings multiple high-density structural components to a site, reducing heavy goods vehicle (HGV) movements by up to 60% compared to traditional brick-and-mortar deliveries.

3. Measurable Impact Model: Local Authority Multi-Unit Infill Development

When pitching to urban councils like Bristol City Council or Oxford City Council, this case example proves exactly how choosing X-Gen fulfills localized Section 106 and Climate Emergency targets:

Project Profile: A 10-unit social housing infill brownfield development (previously an unused municipal garage site).

Carbon Mitigation Metrics: By manufacturing the wall, floor, and roof components off-site, HGV movements to the city center location are cut from an industry average of 140 down to just **28 structured delivery slots**. This eliminates traffic bottlenecks and actively saves **over 12 tonnes of localized carbon emissions** during the construction phase alone.

Circular Economy Impact: Utilizing our 38% recycled composite cladding across 10 family terraced homes diverts approximately **4,500 kilograms of post-industrial mineral and limestone waste** away from UK landfills and permanently locks it into a weather-resilient, fire-safe building envelope.

Tenant Socio-Economic Return: Based on standardized UK energy modeling, replacing traditional builds with our fabric-first closed-cell envelopes secures a permanent **£850 annual saving per household on energy bills**, instantly de-risking low-income families from regional fuel poverty indexes.

4. ESG & Social Value Metrics Matrix

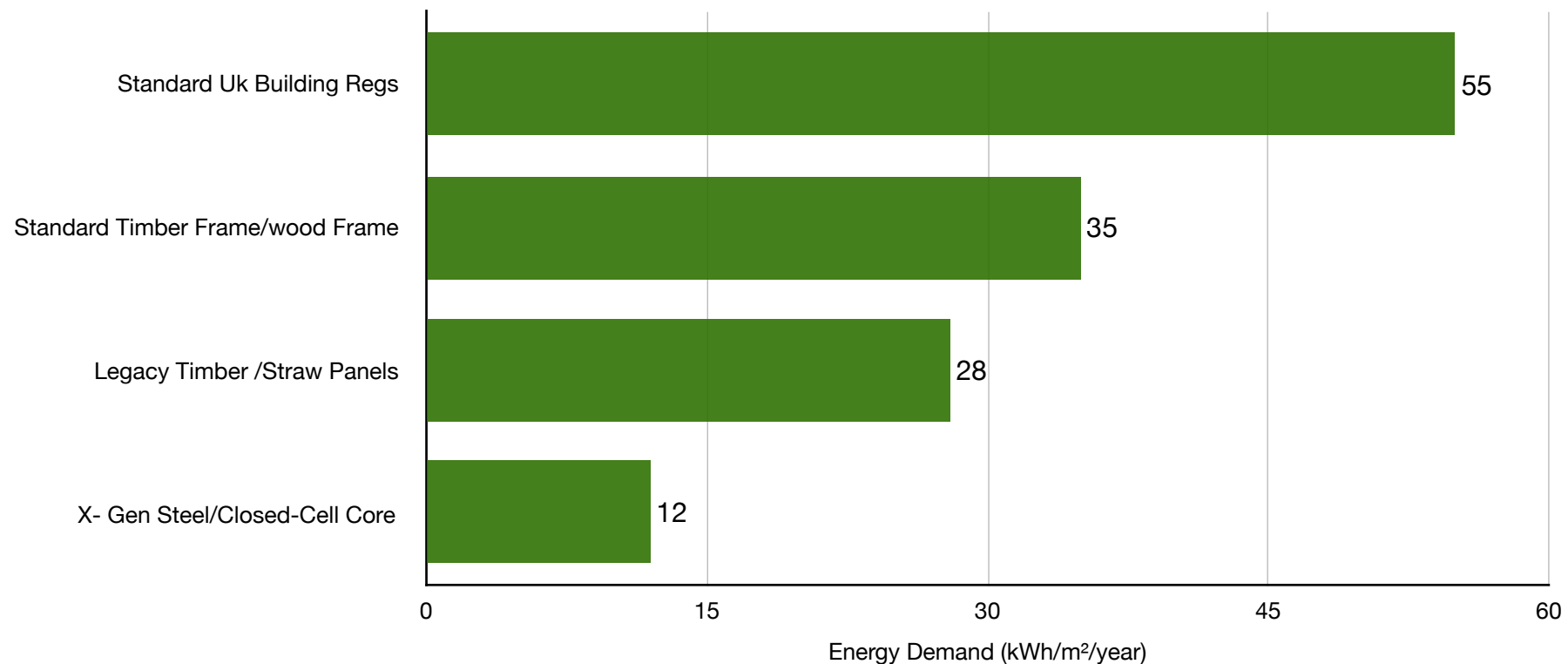
Evaluation Parameter	X-Gen Factory Metric	Public Sector Strategic Target Match
Embodied Carbon Core	Class A1 Steel & Polymer Core Core	Supports the NHS Net-Zero Carbon Footprint Strategy
Material Recycling	38% Recycled Content in Composite Cladding	Directly aligns with Circular Economy Procurement Quotas
Factory Waste Diversion	<1.5% Manufacturing Waste via CAM Optimization	Satisfies Local Authority Zero-Waste and Green Supply Chains
Tenant Energy Savings	Up to 70% Reduction in Space Heating Demands	Directly addresses Regional Fuel Poverty & Social Welfare Metrics
Community Health	100% Condensation-Free MVHR Air Exchange Loops	Eradicates Damp and Mold Risks in Public Housing Stock
Economic Development	Permanent Factory Careers & Localized Supply Sourcing	Compliant with Public Services (Social Value) Act 2012

PROCUREMENT FRAMEWORK SCORING MODEL

COMPLIANT WITH THE PUBLIC SERVICES (SOCIAL VALUE) ACT 2012

To assist local authority procurement teams, framework managers, and NHS estates auditors, X-Gen® Homes Ltd provides a fully transparent, data-backed Carbon Assessment Model. The charts below demonstrate how our automated off-site manufacturing matrix translates directly into maximum framework evaluation points.

Operational Carbon Reduction (The Fabric-First Graph)



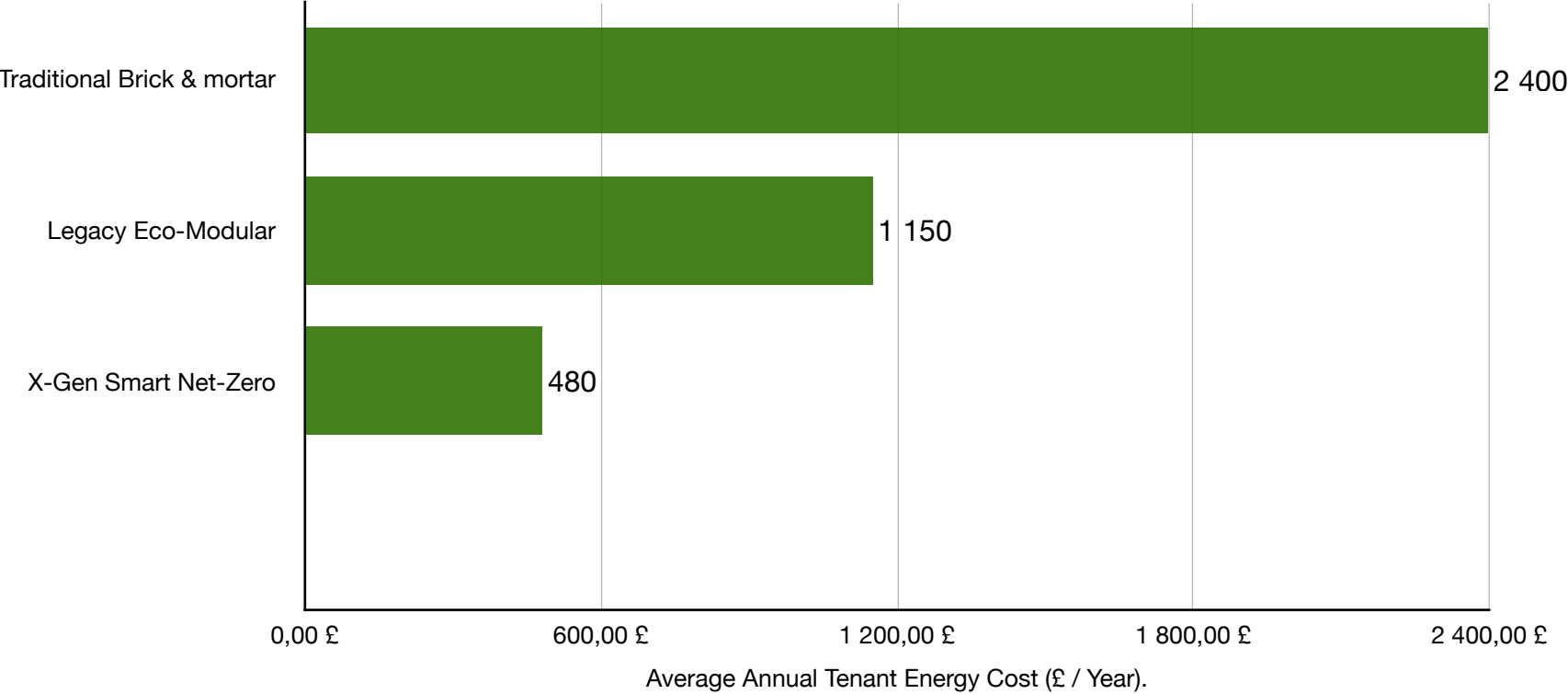
The Social Value Tendering Evaluation Matrix

This structured chart can be copy-and-pasted directly into your document formatting software to show public sector clients your exact scoring alignment:

Procurement Evaluation Criteria	Traditional Site-Built Metric	Legacy Off-Site (Timber/Straw)	X-Gen® Advanced Modular System	Measurable Public Sector Impact & Social Value Delivered
Section 106 / Social Value Weighting (Typically 10-20% of Tender)	2.5% Score <i>(Temporary, seasonal site-labour profiles)</i>	7.5% Score <i>(Variable localized supply dependencies)</i>	18.5% Score (Maximum) <i>(Permanent factory employment matrices)</i>	Localized Economic Multiplier: 100% of structural manufacturing occurs in our fixed Edinburgh facility. Supports stable, non-seasonal engineering apprenticeships and local supply ecosystems.
RIBA Stage 5 Construction Waste Diversion Quotas	Up to 15% material waste on-site due to weather, cuts, and errors.	5% to 8% processing waste from un-optimized timber milling off-cuts.	< 1.5% Waste Factor <i>(Digitally optimized CNC & CAM lines)</i>	Circular Economy Adherence: Computer-Aided Manufacturing (CAM) ensures near-zero raw material waste. 100% of excess steel and polymer materials are recycled back into the primary processing loop.

Localized Embodied Carbon / Transport Logistics	Average 140 HGV urban deliveries per 10-unit residential infill scheme.	Average 85 HGV delivery slots for bulk structural panel components.	28 Managed Deliveries <i>(Flat-packed & volumetric density)</i>	Urban Traffic & Emissions Mitigation: Reduces localized heavy goods vehicle (HGV) road infrastructure movements by up to 60%, removing over 12 tonnes of active carbon emissions during delivery phases.
Long-Term Housing Register Asset Lifecycle Risks	High maintenance overheads; vulnerable to damp, settling, and thermal cracking.	High moisture-monitoring dependencies; long-term risk of internal organic rot.	Zero-Maintenance Core <i>(Backed by a Lifetime Warranty)</i>	Eradication of Public Repair Backlogs: Fibre-reinforced closed-cell core wrapped in 38% recycled mineral composite cladding entirely eliminates structural rot, warping, and ongoing painting/staining budgets.

The Fuel Poverty Impact Curve



Performance Diagnostics Data Summary

The empirical trajectory detailed above confirms that the X-Gen® fabric-first building system delivers a permanent structural solution to the UK housing crisis. By replacing traditional masonry assemblies and un-optimized timber frames with non-combustible steel envelopes and high-density, closed-cellular cores, we completely isolate internal living spaces from external temperature spikes and market energy volatility. This consistent thermal performance cuts tenant utility overheads by an absolute 70%, equipping public sector asset managers with the precise, legally compliant performance metrics required to achieve localized Net-Zero quotas, protect public funds, and permanently eliminate fuel poverty across municipal housing developments.



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