

# The four themes of the London Energy Transformation Standard (LETI)

## APPENDIX B

- Fabric
- Heat and Power
- Embodied Carbon
- Data Disclosure

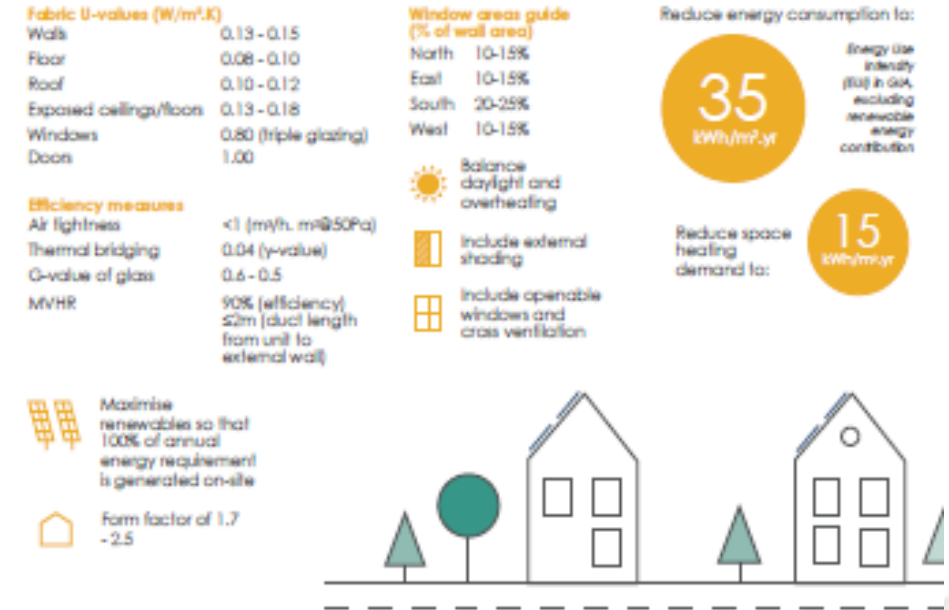


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# Fabric – Benchmark

APPENDIX B cont.

- Fabric U values – Windows, Walls, roof, etc.
- Efficiency Measures – Air tightness, thermal bridging, G values glass, MVHR
- Maximise renewables
- Window area guidance
- Shading
- Reduced energy consumption to 35kwh/m2 per year
- Reduce space heating demand to 15 kwh/m2 per year



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# Heating, Hot water, Demand Response – Benchmark

APPENDIX B cont.

- Fuel (no Fossil fuel/No Gas)
- Heating max 10 w/m<sup>2</sup> peak heat loss
- Hot water max dead lag hot water of 1m, green euro water outlets
- Peak time reduction of energy use
- Electricity generation and storage
- Electric vehicle charging
- Behavioural change



## Heating and hot water

Implement the following measures:



**Fuel**  
Ensure heating and hot water generation is fossil fuel free



**Heating**  
Maximum 10 W/m<sup>2</sup> peak heat loss (including ventilation)



**Hot water**  
Maximum dead leg of 1 litre for hot water pipework

'Green' Euro Water Label should be used for hot water outlets (e.g.: certified 6 L/min shower head – not using flow restrictor).

## Demand response

Implement the following measures to smooth energy demand and consumption:



**Peak reduction**  
Reduce heating and hot water peak energy demand



**Active demand response measures**  
Install heating set point control and thermal storage



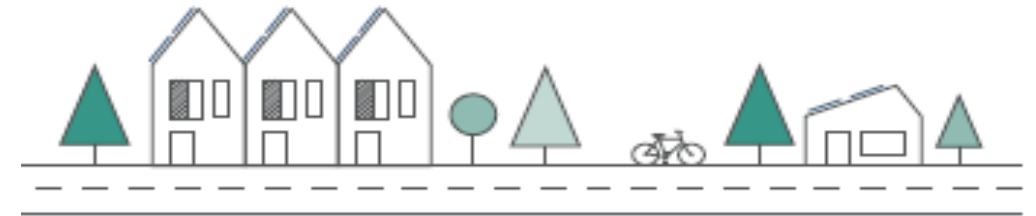
**Electricity generation and storage**  
Consider battery storage



**Electric vehicle (EV) charging**  
Electric vehicle turn down



**Behaviour change**  
Incentives to reduce power consumption and peak grid constraints.



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# Embodied Carbon – Benchmark

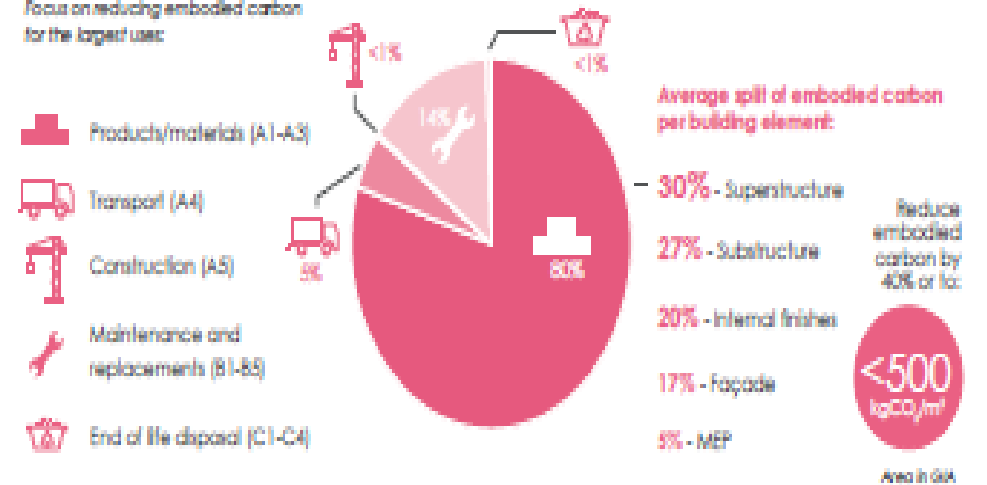
## APPENDIX B cont.

- Production materials
- Transport
- Construction
- Maintenance and replacement
- End of life disposal
- Reduce embodied carbon by 40%
- Less than 500 kgCO<sub>2</sub>/M<sup>2</sup>



### Embodied carbon

Focus on reducing embodied carbon for the largest uses:



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# Data Disclosure – Ambition

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- Metering
  - renewables
  - vehicle charging (where applicable)
  - heating
  - internal temperatures
  - smart metres
- Annual Building Energy consumption
- Annual reporting by scheme
- Data sharing opportunities



## Data disclosure

Meter and disclose energy consumption as follows:

### Metering

1. Submeter renewables for energy generation
2. Submeter electric vehicle charging
3. Submeter heating fuel (e.g. heat pump consumption)
4. Continuously monitor with a smart meter
5. Consider monitoring internal temperatures
6. For multiple properties include a data logger alongside the smart meter to make data sharing possible.

### Disclosure

1. Collect annual building energy consumption and generation
2. Aggregate average operational reporting e.g. by post code for anonymity or upstream meter
3. Collect water consumption meter readings
4. Upload five years of data to GLA and/or CarbonBuz online platform
5. Consider uploading to Low Energy Building Database.

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