Seaward Way

Affordable housing : 50+ unit

Operational energy

Implement the following indicative design measures:

Fabric U-values (W/m².K)

		Seaward Way Design Target
Walls	0.13 - 0.15	0.15
Floor	0.08 - 0.10	0.09
Roof	0.10 - 0.12	0.09
Exposed ceilings/floors	0.13 - 0.18	0.11
Windows	0.08	0.052 - 0.085
Doors	1.00	0.52 - 1.22

Efficincy measures

Air tightness
Thermal bridging
G-value of glass
MVHR

Maximise renewables so that 100% of annual energy requirement is generated on-site

Form factor of 1.7 - 2.5

Window areas guide (% of wall area)

North	10-15%
East	10-15%
South	20-25%
West	10-15%

Balance daylight and overheating

Include external shading

Include openable windows and cross ventilation

Reduce energy consumption to:

Energy Use Intensity (EUI) in GIA, excluding renewable energy contribution

35 kWh/m².yr
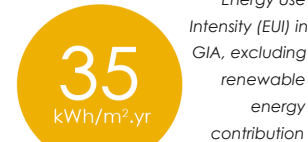
Reduce space heating demand to:

15 kWh/m².yr

Heating and hot water

Implement the following measures:

Fuel
Ensure heating and hot water generation is fossil fuel free

Heating
Maximum. 10w/m² peak heat loss (including ventilation)

Hot water
Maximum dead leg of 1 litre for hot water pipework.
Green' Euro Water Label should be sed for hot water outlets (e.g.: certified 6 L/min shower head - not using flow restrctions).
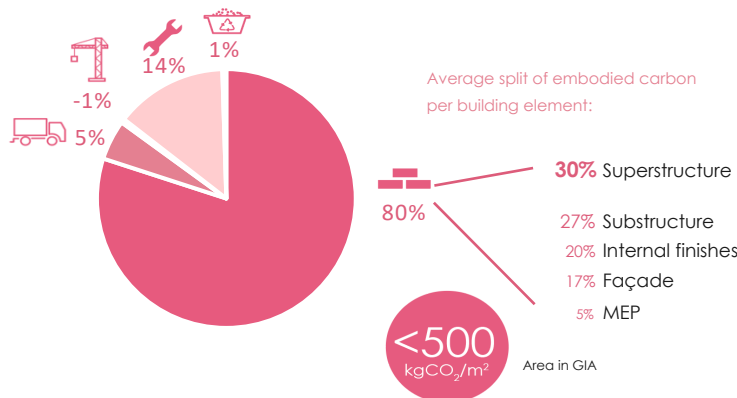
Demand response

Implement the following measure 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 vehcle turn down

Behaviour change
Incentives to reduce power consumption and peak grid constraints

Embodied carbon

Focus on reducing embodied carbon for the largest uses:

Products/materials (A1-A3)

Transport (A4)

Construction (A5)

Maintenance and replacements (B1-B5)

End of life disposal (C1-C4)

1%
14%
-1%
5%

Average split of embodied carbon per building element:

80%

30% Superstructure
27% Substructure
20% Internal finishes
17% Façade
5% MEP

<500 kgCO₂/m²

Area in GIA

Data disclosure

Meter and disclosure 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. Continuosly 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

123 Disclosure

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

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