

Flat 1&2 19 Alexander Parade Weston-super-mare BS23 1QT  
Energy Strategy Calculations With PV

1 Summary Table	Flat 1		Flat 2	
EPC rating (Energy) original	83B	86B	80C	82B
EPC rating (Energy) original	79C	96A	74C	95A
EPC rating (Energy) revised	93A	100A	91A	100A
	Primary Energy Demand (kWh/m <sup>2</sup> /yr)	CO <sub>2</sub> emissions (kgCO <sub>2</sub> /m <sup>2</sup> /yr)	Primary Energy Demand (kWh/m <sup>2</sup> /yr)	CO <sub>2</sub> emissions (kgCO <sub>2</sub> /m <sup>2</sup> /yr)
Baseline Energy Demand and emissions Building Regulations Part L compliance	101.05	18.39	123.52	22.51
Improved Energy Demand and emissions Building Regulations Part L compliance	58.3	5.54	71.6	6.81
Proposed scheme after energy efficiency measures plus PV (Dwelling Emissions Rate)	23.91	0.58	29.54	0.6
<b>Energy and CO2 reduction</b>	<b>34.39</b>	<b>4.96</b>	<b>42.06</b>	<b>6.21</b>
<b>% Energy and CO2 reduction</b>	<b>58.99</b>	<b>89.53</b>	<b>58.74</b>	<b>91.19</b>

<b>Floor Area</b>	<b>72.24</b>	<b>72.24</b>	<b>65.82</b>	<b>65.82</b>
<b>Primary Energy Demand improved</b>	<b>4212</b>	<b>400</b>	<b>4713</b>	<b>448</b>
<b>Floor Area</b>	<b>72.24</b>	<b>72.24</b>	<b>65.82</b>	<b>65.82</b>
<b>Primary Energy Demand plus PV</b>	<b>1727</b>	<b>42</b>	<b>1944</b>	<b>39</b>
<b>Primary Energy Saving</b>	<b>2484</b>		<b>2768</b>	

2 Detailed measures			
2.1 Energy efficiency measures measures			
Element or system	Dwellings	Proposed	Reduction
Wall	0.26	0.19	0.07
Roof	0.16	0.13	0.03
Floor	0.18	0.11	0.07
Windows/doors	1.6	1.2	0.4
Permeability	8	5	3

Whole building	
Primary Energy Demand (kWh/m <sup>2</sup> /yr)	CO <sub>2</sub> emissions (kgCO <sub>2</sub> /m <sup>2</sup> /yr)
0.00	0.00
138.06	138.06
8924.30	848.44
138.06	138.06
3671.58	81.39
<b>Energy</b>	<b>Carbon</b>
<b>Total saving</b>	<b>5252.72</b>
	<b>767.05</b>

Whole building	
<b>Total improved Energy Consumption p.a.</b>	<b>8924</b>
<b>Total Energy Consumption per annum With PV</b>	<b>3672</b>
<b>Total Reduction in Energy Consumption p.a.</b>	<b>5253</b>
<b>Percentage Reduction in Energy Consumption p.a.</b>	<b>58.86</b>