



# LIVV HOUSING GROUP

## Streamlined Energy & Carbon Report for 2021/22

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Version 3

Version	Date	Changes	Author	Authorised By	Peer Reviewer
V1	13/07/2022	Initial Draft	Jacqui Lloyd Anthony Horsley	Keith Maloney BEng (Hons)	Steve Bayfield BSc
V2	19/07/2022	Initial Client Issue	Anthony Horsley	Keith Maloney BEng (Hons)	Steve Bayfield BSc
V2.1	25/07/2022	Amended to Client issue	Anthony Horsley	Keith Maloney BEng (Hons)	Steve Bayfield BSc
V3	26/07/2022	Amended to include client & MA reviews and comments	Anthony Horsley	Keith Maloney BEng (Hons)	Steve Bayfield BSc Lucy England Keith Maloney BEng (Hons)



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## 1.0 Executive Summary

As part of the Streamlined Energy and Carbon Reporting (SECR) framework it has been identified that the total energy use for Livv Housing Group totals **6,098,963 kWh** for the period 1<sup>st</sup> April 2021 to 31<sup>st</sup> March 2022. The total energy use includes building and transport energy.

The total carbon emissions for Livv Housing Group during the reporting period is **947 tCO<sub>2</sub>e**.

Table 1 provides a summary of the energy usage and the associated carbon emissions. The methodology used to calculate this information has been explained within Section 3 of this report.

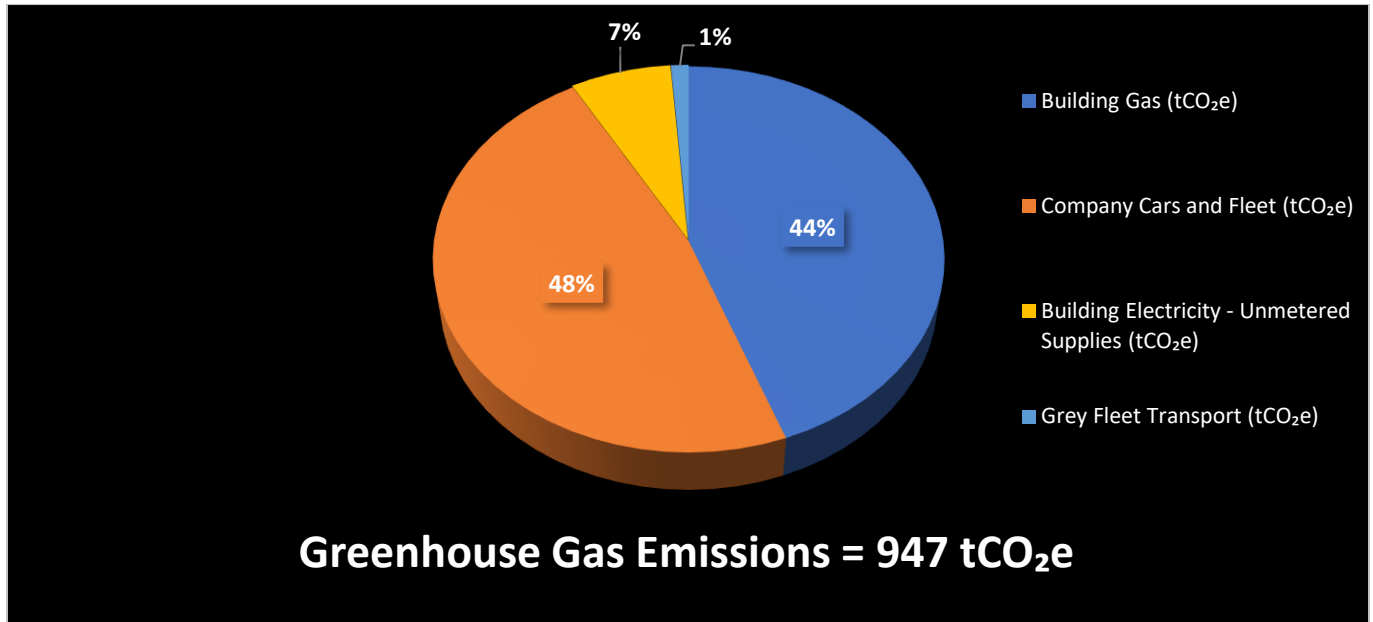
**Table 1 – Summary of Livv Housing Group Annual Energy Use and Associated Carbon Emissions (1<sup>st</sup> April 2021 – 31<sup>st</sup> March 2022)**

Scope	Activity	Fuel Use	Annual Energy (kWh)	Annual Carbon Emissions (tCO <sub>2</sub> e)
1	Building Energy - Gas (kWh)	2,292,784	2,292,784	420
1	Transport Company Fleet - Miles	1,044,628	1,786,356	450
2	Building Energy - Electricity Metered Supplies(kWh)	1,662,806	1,662,806	0
2	Building Energy - Electricity Unmetered Supplies	311,504	311,504	66
3	Transport Grey Fleet - Expensed Mileage (Miles)	42,992	45,513	11
		<b>Total</b>	<b>6,098,963</b>	<b>947</b>

*\*Note: Building Energy (metered supplies) have been purchased with a 100% green electricity contract with zero carbon emissions-associated.*

The profile shown in Figure 1 provides a summary of the make-up of Livv's annual carbon emissions for the 2021/22 financial year reporting period. The profile below shows that the main contributor of the Groups carbon emissions is Company Fleet miles and accounts for **48%** of the overall emissions.

Figure 1 – Summary of Livv Housing Group Annual Carbon Emissions (1<sup>st</sup> April 2021 – 31<sup>st</sup> March 2022.)



## 2.0 Organisation Boundary

Livv Housing Group are a multi-faceted community services organisation offering services in housing, construction, charity and facility management. The diverse operations stem from a strong presence in the social housing sector with around 25,000 tenants and over 13,000 registered properties.

Livv Housing Group comprises of Livv Homes, Livv Maintenance and Livv Investment. Livv Housing Group is a charitable registered society under the Cooperative and Community Benefit Societies Act 2014

## 3.0 Energy and Carbon Emissions Data

### 3.1 Reporting Period

For the purpose of this report the year is 1<sup>st</sup> April 2021 – 31<sup>st</sup> March 2022. This is in line with the Groups financial reporting period.

### 3.2 Methodology

Livv Housing Group have chosen to report on the following key items within their boundary:

- **Scope 1 Emissions**
  - Gas consumption
  - Transport – Fleet
- **Scope 2 Emissions**
  - Electricity consumption
- **Scope 3 Emissions**
  - Transport – Grey Fleet

Livv’s building energy data has been calculated using invoices provided by the energy supplier on a monthly basis.

Fuel usage associated with the fleet vehicles has been populated from the use of fuel reports provided by Livv’s F&AM System Implementation, Transport Manager and payroll department.

Grey fleet data has been sourced from mileage claims that have been submitted by employees during the reporting period. This information has also been provided by the F&AM System Implementation & Payroll Dept for the agreed reporting period.

### 3.3 Annual Energy and Carbon Emissions

As reported within the Executive Summary, the total energy for Livv Housing Group in 2021/22 reporting period totalled **6,098,963 kWh** (building energy including UMS and transport energy).

The associated carbon emissions for this reporting period totals **947 tCO<sub>2</sub>e**. This is the equivalent to the emissions produced by 189 homes.

Overall Livv Housing Group have achieved a year-on-year building energy reduction of 689,606 kWh

This is a **14% reduction** in building energy consumption.

However, the overall carbon emissions has stayed the same at **947 tCO<sub>2</sub>e**, due to the electricity metered supplies kWh reduction having no carbon associated to it because Livv have again secured a 100% certified green energy contract as well as an increase in transport emissions as detailed within this report.

### 3.4 Year on Year Energy and Carbon Comparisons

#### 3.4.1 Building Energy Comparisons (Metered & Unmetered Supplies)

The following information has been provided at the request of Livv Housing Group, to provide a comparison between the building energy in the 2020/21 financial year period and the 2021/22 financial year period. This highlights a year-on-year reduction of **15%** and **13%** for electricity and gas respectively. Shown in table 2 and figure 2 below

**Table 2 – Building energy kWh year-on-year comparison**

	<b>Elec (kWh)</b>	<b>Gas (kWh)</b>	<b>Total Energy (kWh)</b>	<b>Total Energy Reduction</b>
FY 2020/21	2,329,195 kWh	2,627,505 kWh	4,956,700 kWh	
FY 2021/22	1,974,310 kWh	2,292,784 kWh	4,267,094 kWh	689,606 kWh
Difference %	15%	13%	14%	

Figure 2 – Livv Housing Group Year on Year Building Energy Comparison

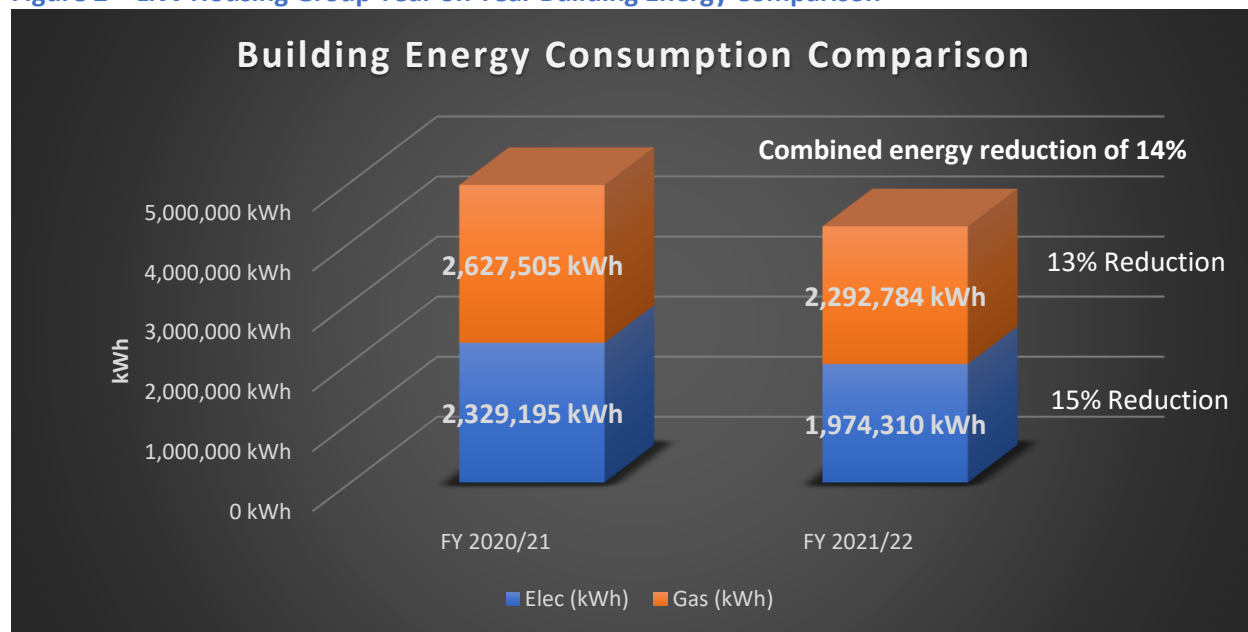


Figure 2 above provides a comparison between the total building energy within 2020/21 and 2021/22 financial year reporting periods. This shows that the overall building energy usage (gas and electricity) has reduced by **14%** during the 2021/2022 reporting period.

Table 3 – Building Carbon Emissions tCO<sub>2</sub>e year-on-year comparison

The following information has been provided at the request of Livv Housing Group, to provide a comparison between the building carbon emissions tCO<sub>2</sub>e for the 2020/21 financial year period and the 2021/22 financial year period. This highlights a year-on-year carbon emissions reduction of **109 tCO<sub>2</sub>e 18%**. This represents **41%** and **13%** for electricity and gas respectively. Shown in table 3 and figure 3 below

	Elec (tCO <sub>2</sub> e)	Gas (tCO <sub>2</sub> e)	Total Energy (tCO <sub>2</sub> e)	Total Carbon Emission Saving
FY 2020/21	112 tCO <sub>2</sub> e	483 tCO <sub>2</sub> e	595 tCO <sub>2</sub> e	
FY 2021/22	66 tCO <sub>2</sub> e	420 tCO <sub>2</sub> e	486 tCO <sub>2</sub> e	109 tCO <sub>2</sub> e
Difference %	41%	13%	18%	

\*Percentages and figures are rounded up or down to nearest whole figure.

The reduction in building energy reflects the energy conservation measures introduced within the unmetered supply portfolio which was successfully renegotiated and aligned following the LED lighting replacement programme. LED lighting has also been installed within the communal areas of Quarry Green and additional improvements completed at the Lakeview Head Office. Further benefits of this action have been realised with the introduction of additional smart meters, that has allowed for accurate billing within the metered supply portfolio.

The newly secured 100% certified green electricity contract, also states that the supplier will achieve 100% smart meters across the account. This will be a great benefit to Livv for monitoring and importantly for the recharging to tenants for communal area lighting etc.

Figure 3 – Livv Housing Group Year on Year Building Energy Carbon Emissions Comparison

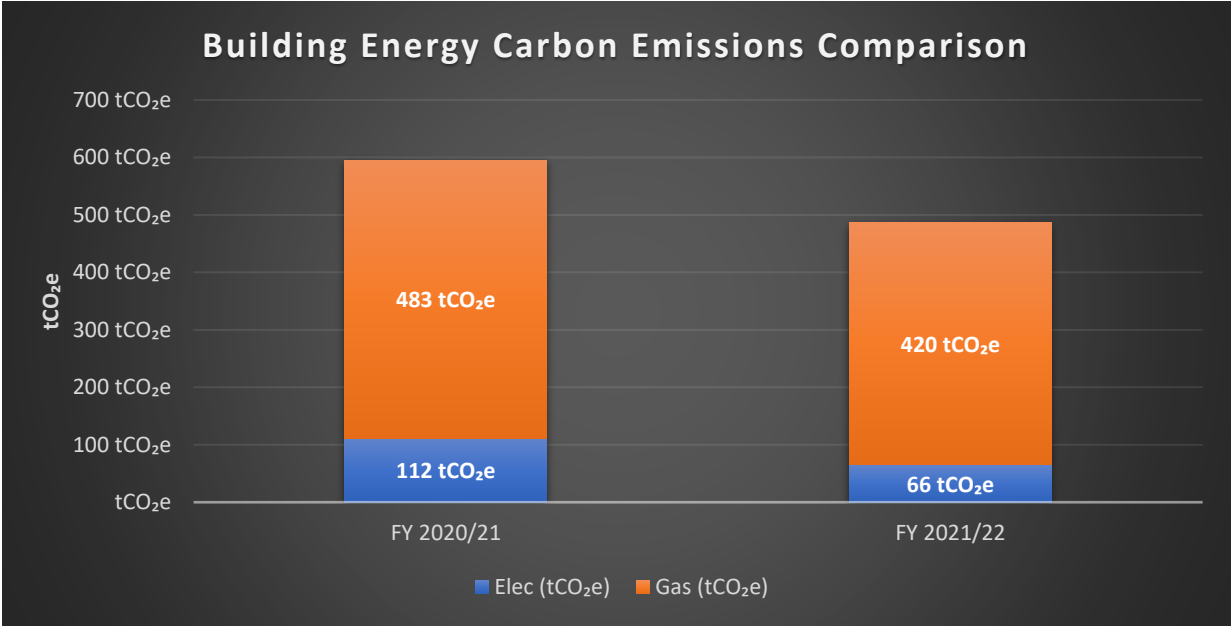


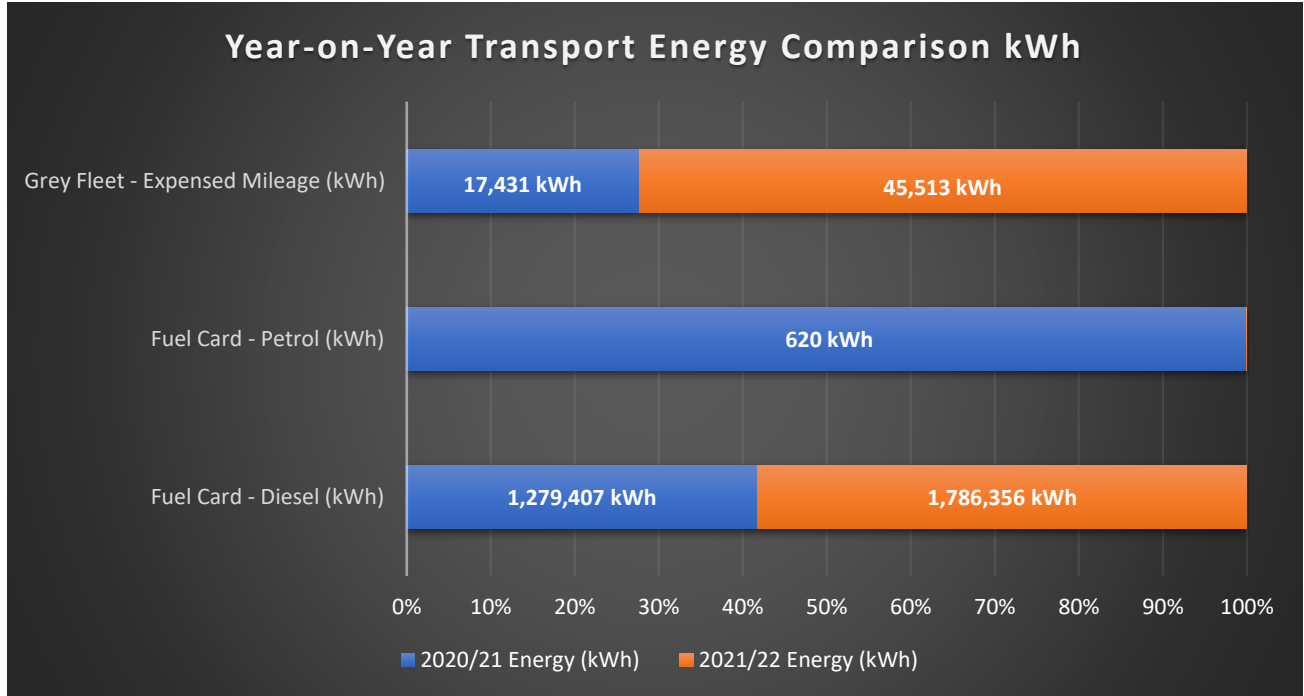
Figure 3 above provides a year-on-year comparison of the carbon emissions associated with the building energy usage. This shows the building energy carbon emissions have **reduced by 18%** in 2021/22

There has been an annual reduction in electricity carbon emissions of **46 tCO<sub>2</sub>e** which equals a **41%** reduction. There has also been a **63 tCO<sub>2</sub>e** reduction in gas carbon emissions, which equates to a **13%** reduction.

### 3.4.2 Transport Energy Comparisons

The following has been included within the report to provide a comparison of the year on year transport data, and associated energy and carbon emissions.

Figure 4 – Livv Housing Group Year on Year Transport Energy Comparison



The profile shown above provides a comparison of the energy associated with the Fleet fuel usage for the 2020/21 and 2021/22 reporting period. The energy use associated with the fleet fuel usage totals (grey fleet + Fuel card petrol + fuel card diesel) **1,297,458 kWh** in 2020/21 and **1,831,869 kWh** in 2021/22.

There has therefore been a year-on-year combined increase of **41%**. This highlights that there is more working activity for the period with Covid-19 restrictions lifted allowing more movement and increased mileage for company fleet and expensed mileage (grey mileage). It is also noted that an increased financial turnover of **£0.578m** would warrant increased activity in company vehicles.

The associated carbon emissions have increased by **109 tCO<sub>2</sub>e** this is equal to an overall increase of **31%**. Figure 5 below allows for the visualisation of the transport carbon emissions.



Figure 5 – Livv Housing Group Year on Year transport carbon emissions tCO<sub>2</sub>e Comparison

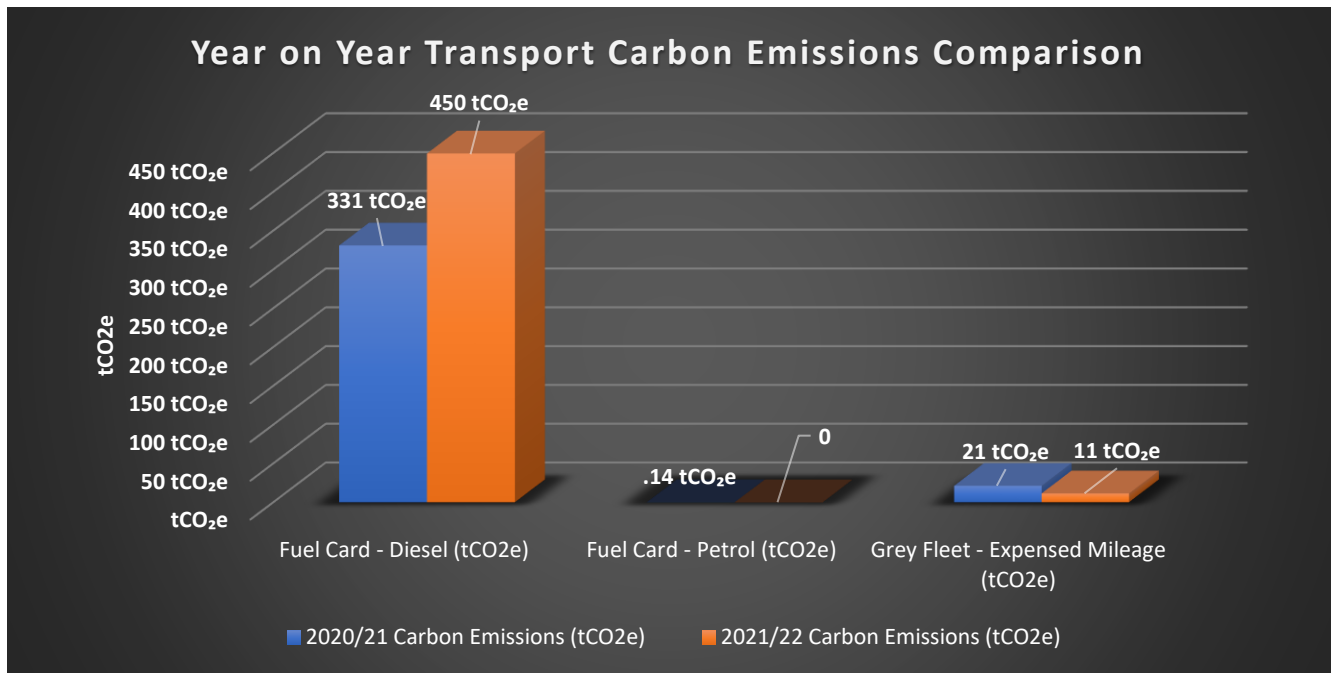


Table 4 – Scope 1,2 & 3 kWh and tCO<sub>2</sub>e comparison Year 3 v's Year 1

	Year 1	Year 3	Cumulative	Change %
	2018/2019	2021/2022	reduction kWh	
Scope 1 Consumption	5,055,065	4,079,140	975,925	19%
Scope 2 Consumption	2,499,451	1,974,310	525,141	21%
Scope 3 Consumption	50,248	45,513	4,735	9%
<b>Total</b>	<b>7,604,764</b>	<b>6,098,963</b>	<b>1,505,801</b>	<b>20%</b>

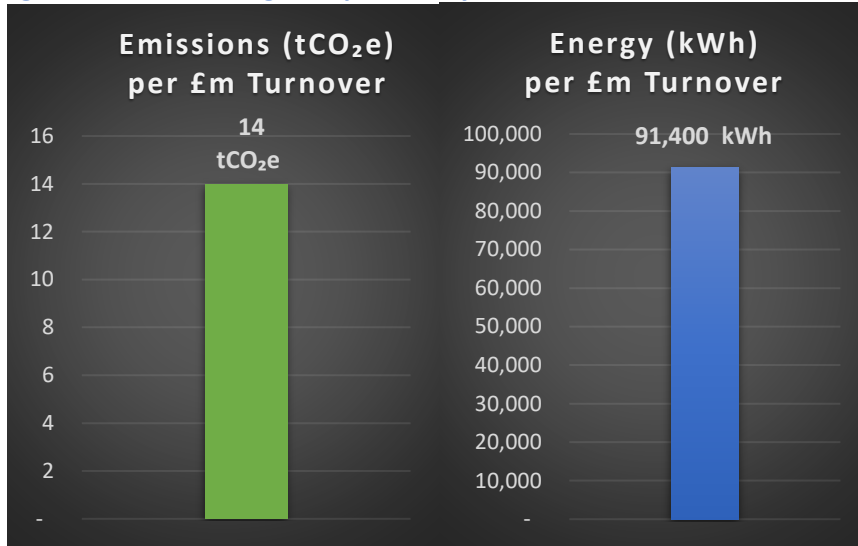
	Year 1	Year 3	Cumulative	Change %
	2018/2019	2021/2022	reduction tCO <sub>2</sub> e	
Scope 1 Emission's	1,039	870	169	16%
Scope 2 Emission's	768	66	702	91%
Scope 3 Emission's	61	11	50	82%
<b>Total</b>	<b>1,868</b>	<b>947</b>	<b>921</b>	<b>49%</b>

The table above provides a visual representation of the current year 3 SECR V's year 1 SECR results. This has been provided to give a direct comparison for 2 years where the impacts of Covid-19 have not affected the business. This highlights the excellent achievement to realise an energy saving of **1,505,801kWh** equal to a **20%** reduction. There has been a significant carbon saving since year 1 of **921 tCO<sub>2</sub>e** (tonnes of carbon dioxide equivalent) equal to **49%** reduction. The SECR report will continue to report against year-1 (baseline) to allow for a change against the baseline.

## 4.0 Intensity Metrics

The intensity metrics that are being used for this current report are energy (kWh) per £'000,000 turnover and carbon emissions (tCO<sub>2</sub>e) per £'000,000 turnover. The intensity metrics for the 2021/22 baseline reporting period have been shown within Figure 7.

Figure 7 – Livv Housing Group Intensity Metrics



The profiles above show the following intensity metrics for the 2021/2022 reporting period: This utilises the published financial turnover for the period of **£66.153m**

- Overall energy usage is **91,400 kWh** per £m turnover
- Carbon emissions equate to **14 tCO<sub>2</sub>e** per £m turnover.

The above metrics include all Building energy use together with business travel.

Figure 8 – Livv Housing Group Intensity Metrics Year-on-Year Comparison

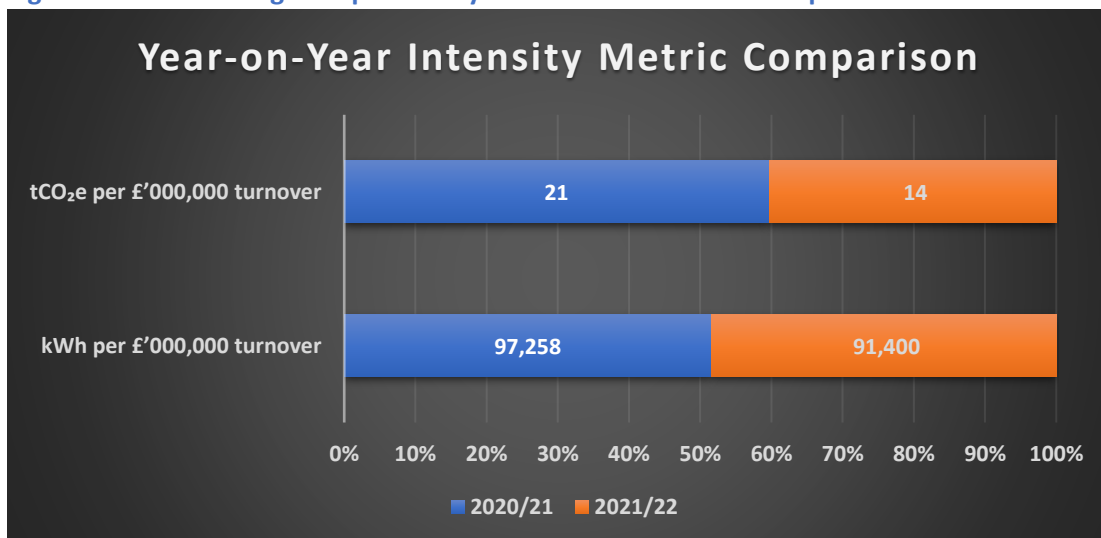


Figure 8 above provides a visual representation of the intensity metrics year-on-year. This shows that despite the increased turnover of **£0.578m** the intensity kWh's and tCO<sub>2</sub>e per £1m have reduced by **6%** and **33%** respectively. This is a great positive result.

This intensity metric has been compared with published report taken from the top 100 Social Housing Groups in table 6 below:

**Table 6 – Intensity Metric Sector Comparison.**

Sector	tCO <sub>2</sub> e per £1m Turnover
Top 100 Social Housing Group	32
Livv Housing Group	14

The above table provides a visual representation of how Livv Housing Group is performing against the carbon emissions metrics for the 100 Social Housing Group. Livv have emissions metric are significantly lower than the report sector published findings.

Source of comparison

[Beever Struthers-Social-Housing-Annual-Review-2021.pdf \(beeverstruthers.co.uk\)](#)

**Please note:** We are seeking to support Livv Housing Group in reviewing relevant and strategic metrics. It is known the Chartered Institution of Building Services Engineers (CIBSE) are reviewing energy and carbon performance guides. This will include Social Housing buildings and metrics. We are also have a recommendation that MA/Livv undertake an exercise to engage with similar Social Housing Associations to seek and share carbon performance.

## 5.0 Energy Efficiency Measures

Livv Housing Group are constantly striving to reinvest in the business and portfolio to deliver energy and carbon reduction initiatives. Below are several ongoing and planned energy conservation measures.

- An Environment and Sustainability Management Group has been proactive. The Sustainability Group is chaired by a member of the Executive Management Team and provides a highly effective forum for championing sustainability strategy improvements throughout the whole Group.
- The recently re-procured 100% certified green electricity has resulted in all metered supplied effectively now operating with zero carbon emissions despite the market prices leading many organisations for the cheaper 'brown electricity'.

- Energy reporting data continues to include performance reports on energy use, business travel and renewable energy.
- Investment into additional renewable opportunities adding to the 1100 properties with solar PV fighting against fuel poverty for vulnerable tenants
- Investment for a robust solar PV maintenance programme that has successfully increased the output kWh for its tenants.
- Replacement of strategic gas boilers for low energy air source heat pumps striving to achieve a 'No gas' commercial portfolio.
- Completing an extensive programme to install low energy LED lighting to all commercial building (offices and community hubs) and communal areas in tenanted developments.
- Livv Housing have taken further strategic strides with a Fuel Poverty Strategy. The progressive asset replacement programme has resulted in the group property portfolio having better measured energy performance ratings than the national Fuel Poverty Strategy energy performance milestones.
- The Group continue to be updating the fleet to lower emission vehicles and continue with focusing on driver training and more efficient vehicle use.
- Several energy and carbon reduction investment projects have been authorised for implementation during 2022.
- The group are now striving to achieve a Carbon Zero status with a view to introducing renewable technologies such as additional Solar Thermal, Solar Photovoltaics & Air Source Heat Pumps to 'future proof' Livv Housing Groups extensive portfolio. Investment into 'retro fit' air source heat pump trials to ease fuel poverty for tenants.
- Investment for new-build and retrofit 'Model' projects to include zero/low carbon technology for present and future tenants.