



Energy Co-operatives
Ireland Ltd

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Ballaghaderreen SEC Baseline Energy Usage Summary Document

Introduction

The [Sustainable Energy Authority of Ireland \(SEAI\)](#) established the [National Sustainable Energy Community \(SEC\) network](#) in 2016 to empower communities seeking proactive involvement in the transition to a low-carbon future. This network offers diverse learning opportunities, facilitates peer-to-peer support, and fosters leadership through exemplary community collaborations. Additionally, it provides access to grant funding. Ballaghaderreen SEC is a member of this network formed by local community members co-ordinated by the [Ballaghaderreen Town Team](#).

Understanding a community's current energy consumption is crucial for devising realistic actionable plans as an SEC. To establish this baseline, Ballaghaderreen SEC commissioned ECI to prepare this Baseline Energy Use study BEU.

This document summarizes the analysis conducted by [Energy Co-operatives Ireland](#) on behalf of Ballaghaderreen SEC. It highlights key findings concerning the community's current energy demand and will be the foundation of a second document which will set out avenues for reducing consumption and transitioning to renewable sources, collectively termed the "Register of Opportunities (RoO)".

The full Baseline Study has been presented by Energy Co-ops Ireland Ltd to Ballaghaderreen SEC and the SEAI. This is a summary document.

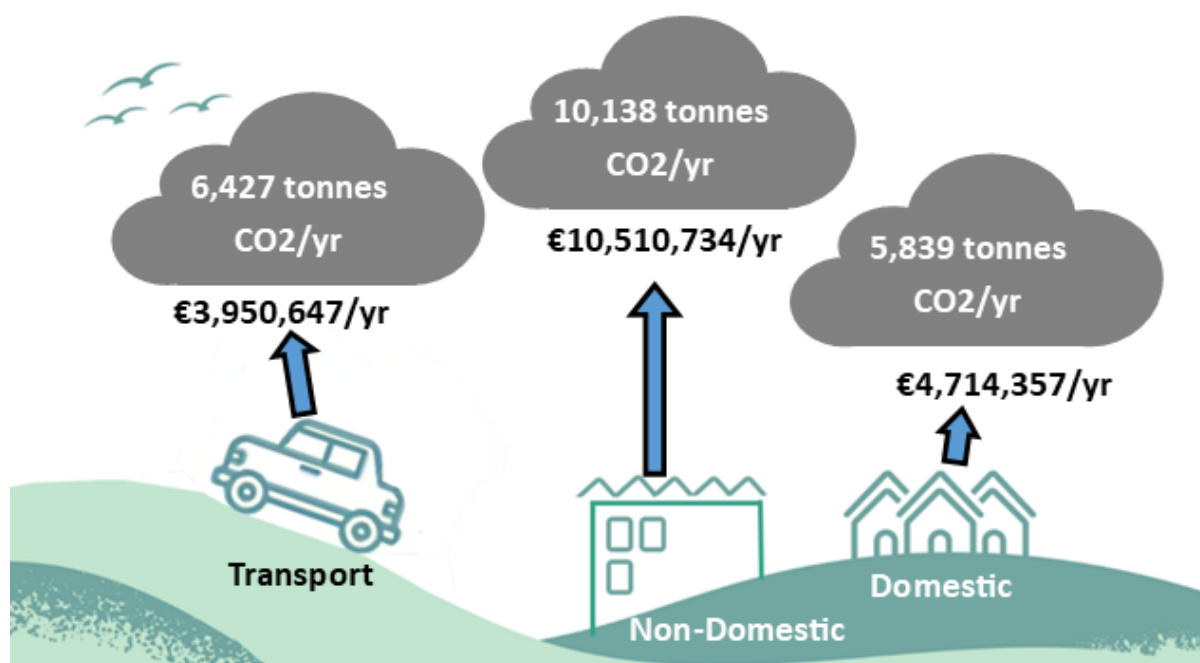


Figure 1: Energy Cost and Emissions in Ballaghaderreen Summary Graphic



Ballaghaderreen Energy Use all sectors – headline figures

- In terms of energy use across all sectors Ballaghaderreen uses 93,341 MWh of energy, 25% of this (23,535 MWh) is *in* the home for heat, light, and appliances.
- Households on average in Ballaghaderreen spend €5,403 on home energy approximately **14.7% of their disposable income¹**. When we include transport costs this rises to €7,157 per year (19.6%).
- Direct² fossil fuel use of 56,107 MWh makes up 60% of all energy sources.
- At present only an estimated 1.7% of energy comes from renewable sources within the SEC.

Table 1: Ballaghaderreen SEC Primary Energy Baseline (kWh)

Sector	Electricity	Fossil Fuel	Renewable	Total
Residential (in the home)	10,240,565	13,205,078	90,006	23,625,655
Non-residential	25,373,077	18,687,394	1,530,297	45,590,768
Transport		24,214,627		24,214,627
Total Energy	35,613,642	56,107,100	1,620,303	93,341,045

This study further shows that Ballaghaderreen **homeowners**:

- Spend over €6.2m on energy between heating, appliances and transport fuel
- Domestic sector energy use is responsible for 8,132 tCO₂ emissions. This would need the carbon capture capability of an estimated 580,857 mature trees to offset.

In the **non-domestic sector**, as **Error! Reference source not found.** shows, Ballaghaderreen

- Spends €12,921,573 on energy
- It produces 14,293 tCO₂ in emissions

¹ According to the CSO in 2022 the mean household income for the Ballaghaderreen Electoral district after tax was €36,567 - <https://data.cso.ie/table/GPIIA01>. Individual households, for example those in fuel poverty, may spend less than this figure – but they are, as a result, not heating their homes to recommended levels.

² This excludes electricity: 40.2% of electricity generation in Ireland in 2024, and this is ever increasing ([CSO Environmental Indicators Ireland 2025 – Key Findings](#))

The average household within the Ballaghaderreen SEC has a heat *demand*³ that incurs €7,157 in annual costs for heating, lighting, electricity, and transport. This results in roughly 12 tCO₂ in direct energy emissions per home, or 4.4 tCO₂ for every resident. However, these figures do not account for the carbon footprint of food, air travel, or consumer goods, nor do they include the broader social and economic activities of the SEC. When both domestic and non-domestic energy-related emissions are combined, the total rises to 22,425 tCO₂ which is 9.39 tCO₂ per person.

Considering that the sustainable global limit is just 2.3 tCO₂ per person, it is evident that there are both major opportunities and an urgent sustainability need for carbon reduction strategies and joint community initiatives within the SEC. To address this, the commissioned Register of Opportunities (to be published) will look at identifying ways to tackle energy waste and high CO₂ levels while uncovering paths for cost savings and local renewable energy production.

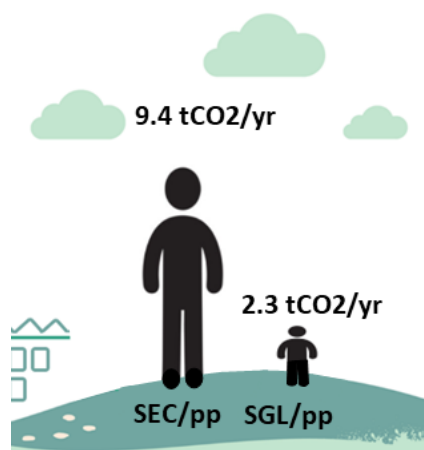


Figure 2: SEC v Sustainable Global Limit (SGL) CO₂ emissions per person per year

These solutions will be designed through a partnership between the report's authors and the local community.

³ Throughout this document we refer to demand rather than actual use/spend. This is based on the SEAI and CSO methodologies for measuring a home or building's energy demand according to objective criteria. Real spends will vary, but we have used the best methodologies possible to give the most accurate picture of demand, use and costs.

Energy Use Figures by Sector

Household Energy – Home and Transport

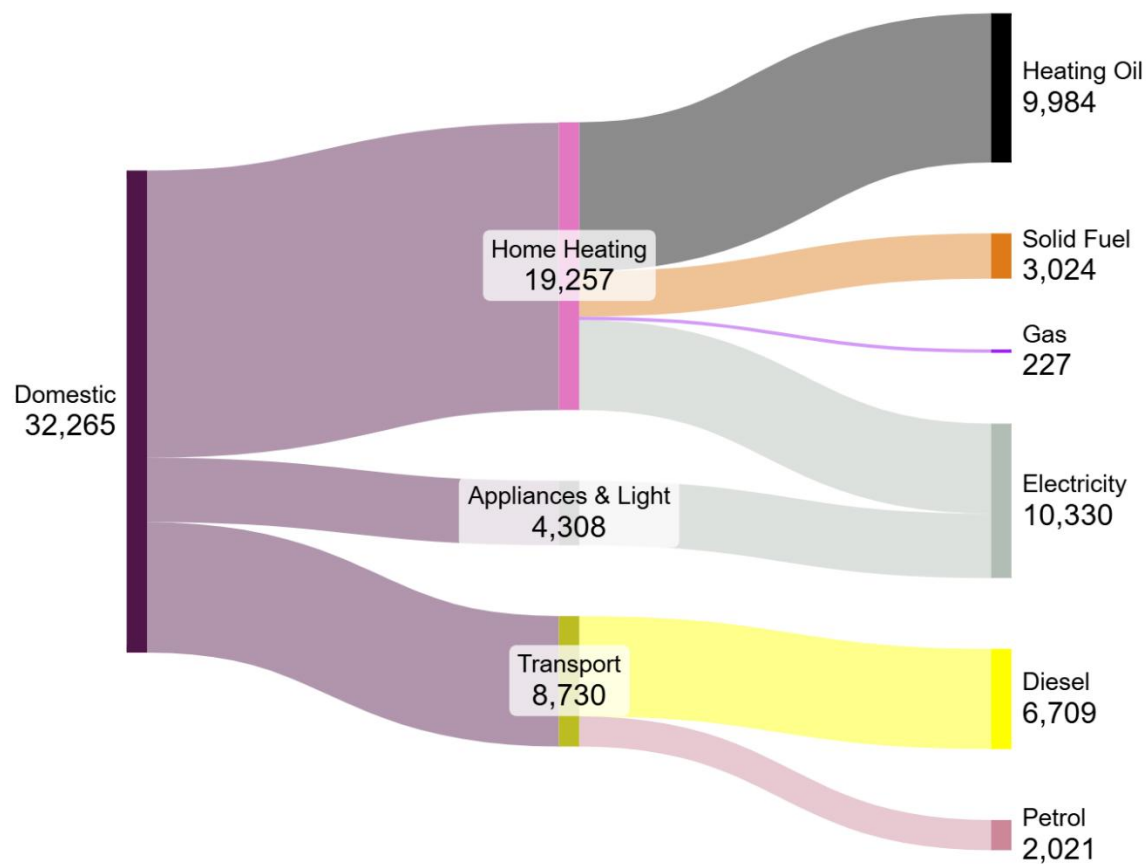


Figure 3: Household Energy – Home and Transport MWh/yr

Ballaghaderreen SEC Baseline Energy Use Study Summary



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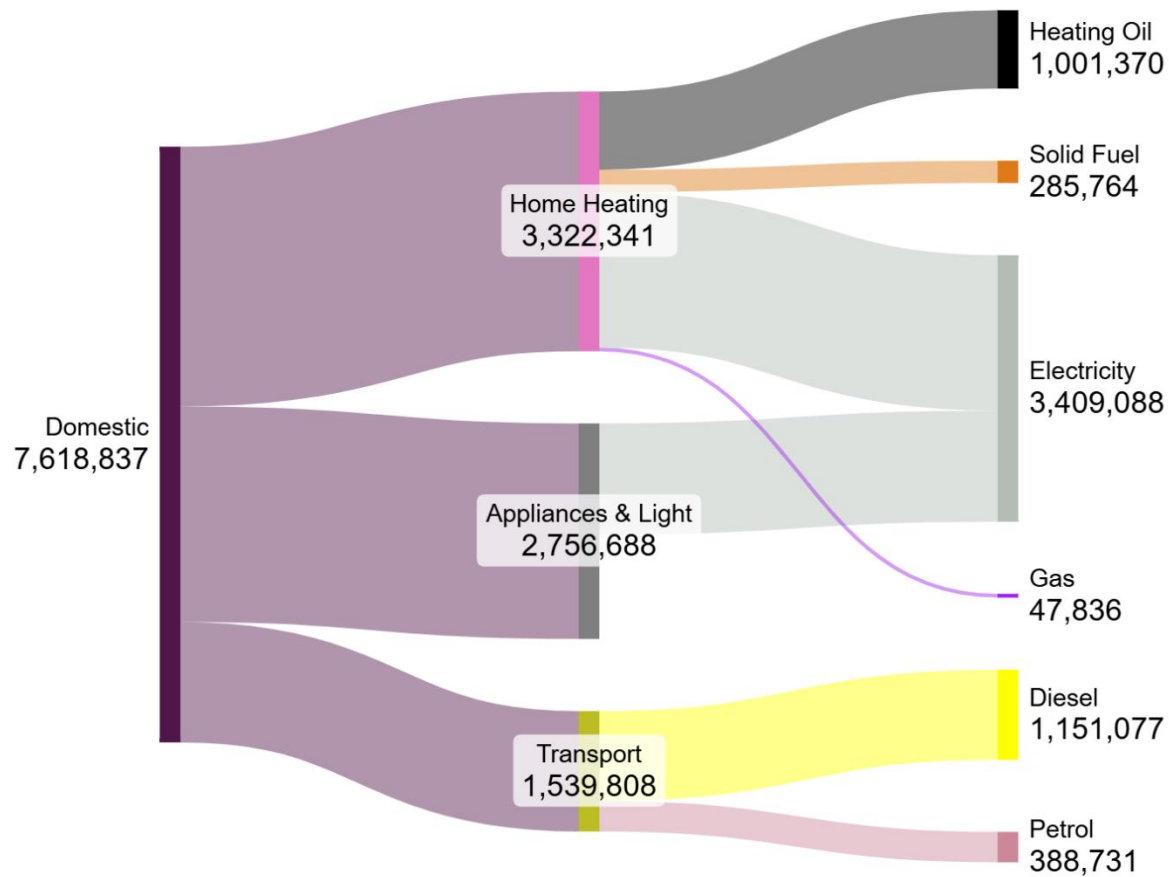


Figure 4: Household Energy – Home and Transport in EURO €

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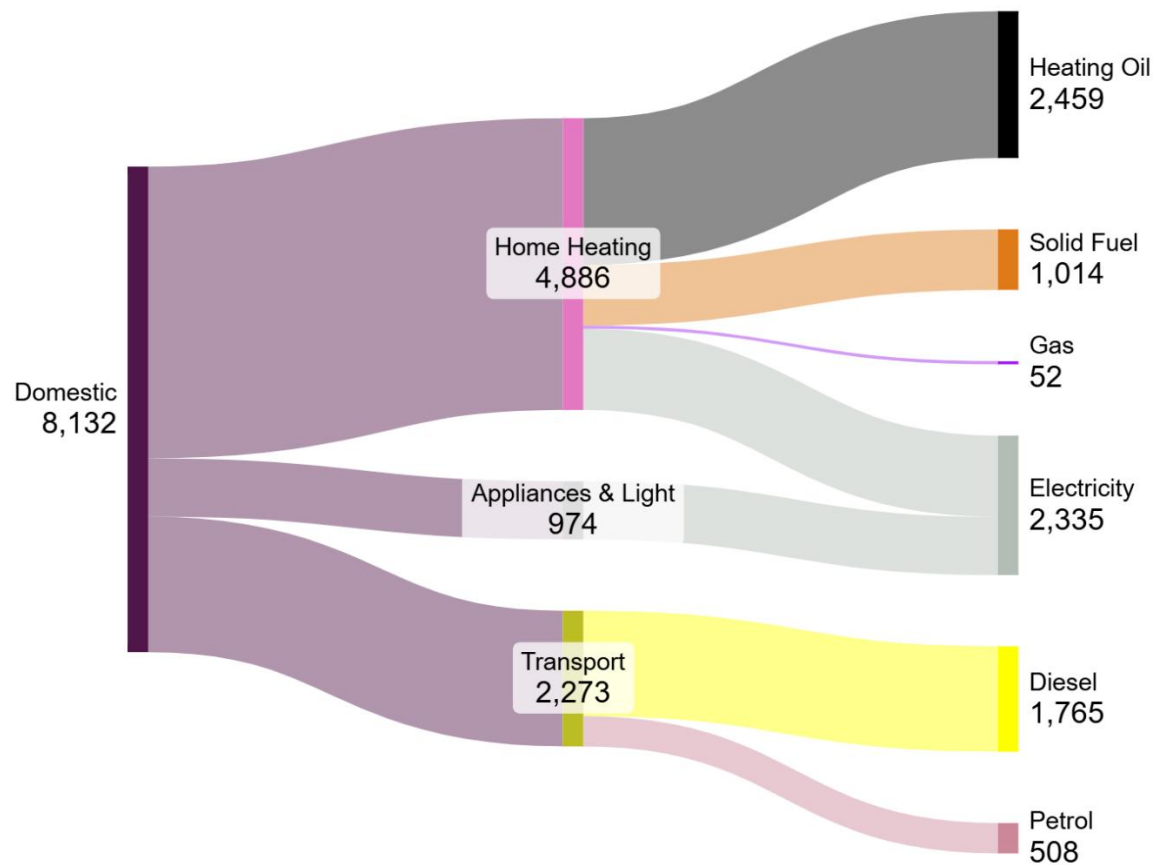


Figure 5: Household Energy – Home and Transport tCO₂eq Emissions

Non-Domestic Energy Use – Buildings and Transport

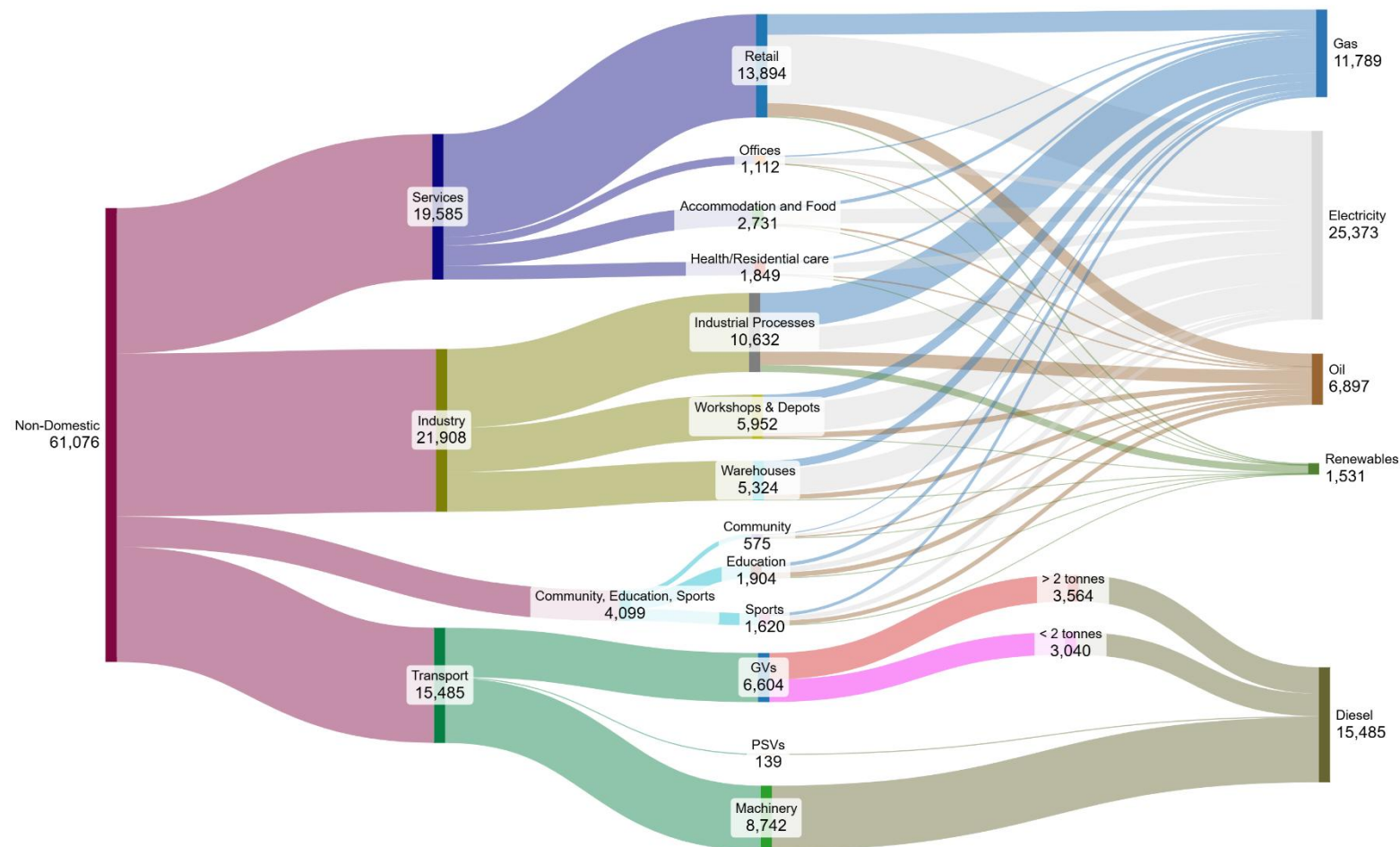


Figure 6: Non-Domestic Energy Use - Buildings and Transport MWh/yr

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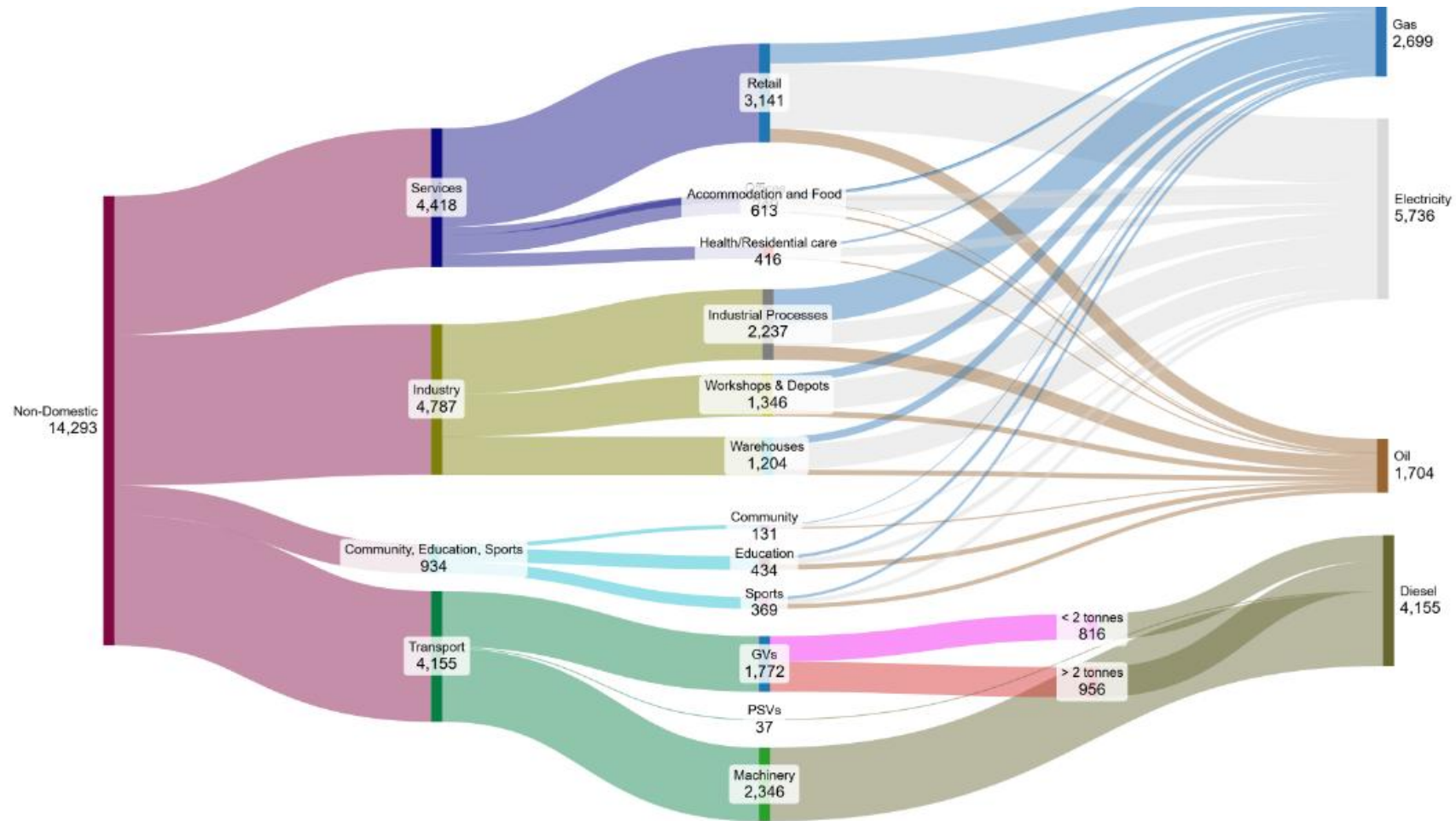


Figure 7: Non-Domestic Energy Use - Buildings and Transport tCO2eq/yr

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SEC Total Energy Use

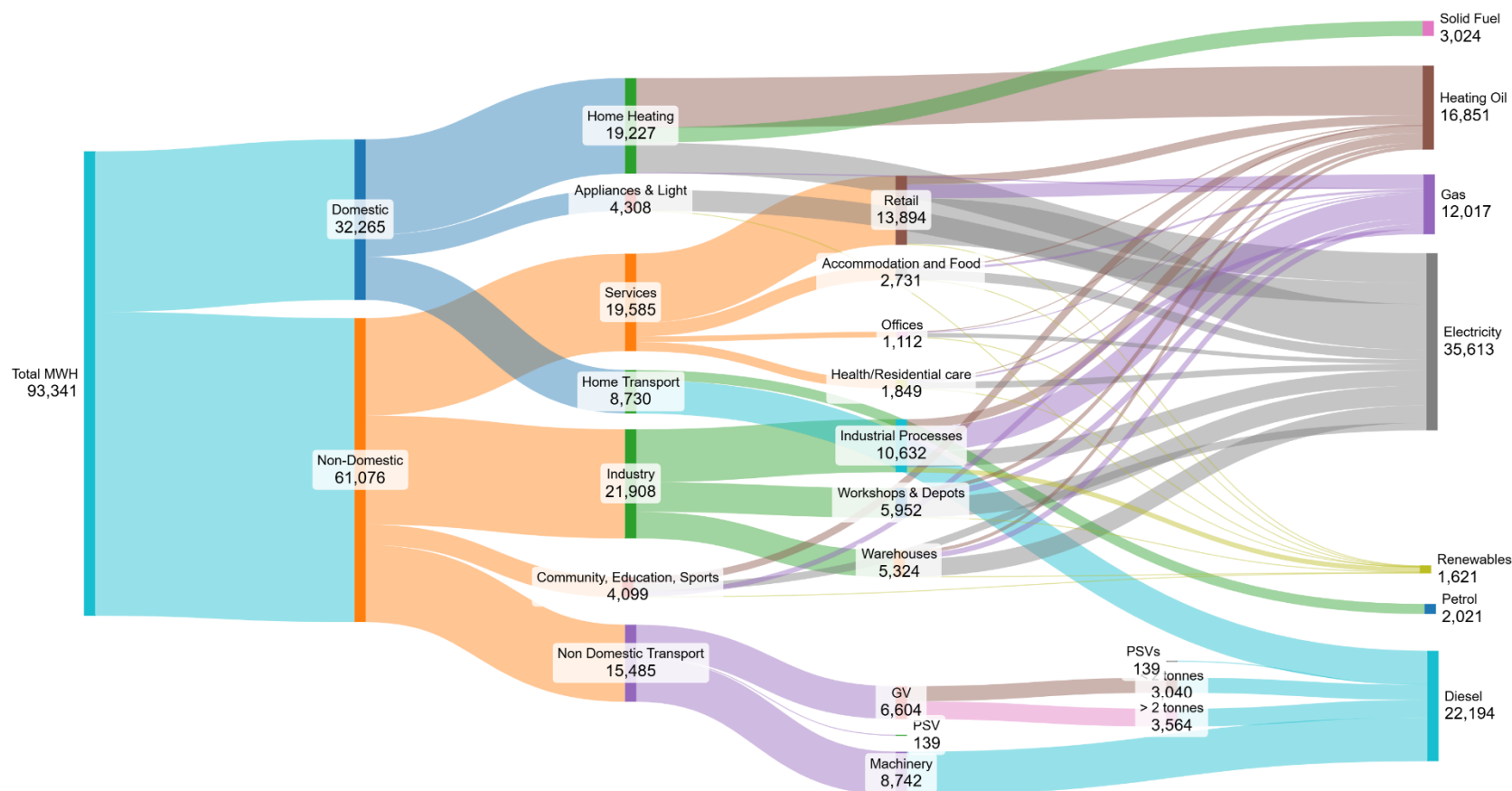


Figure 8: Ballaghaderreen SEC Total Energy Use MWh/yr

Ballaghaderreen SEC Baseline Energy Use Study Summary



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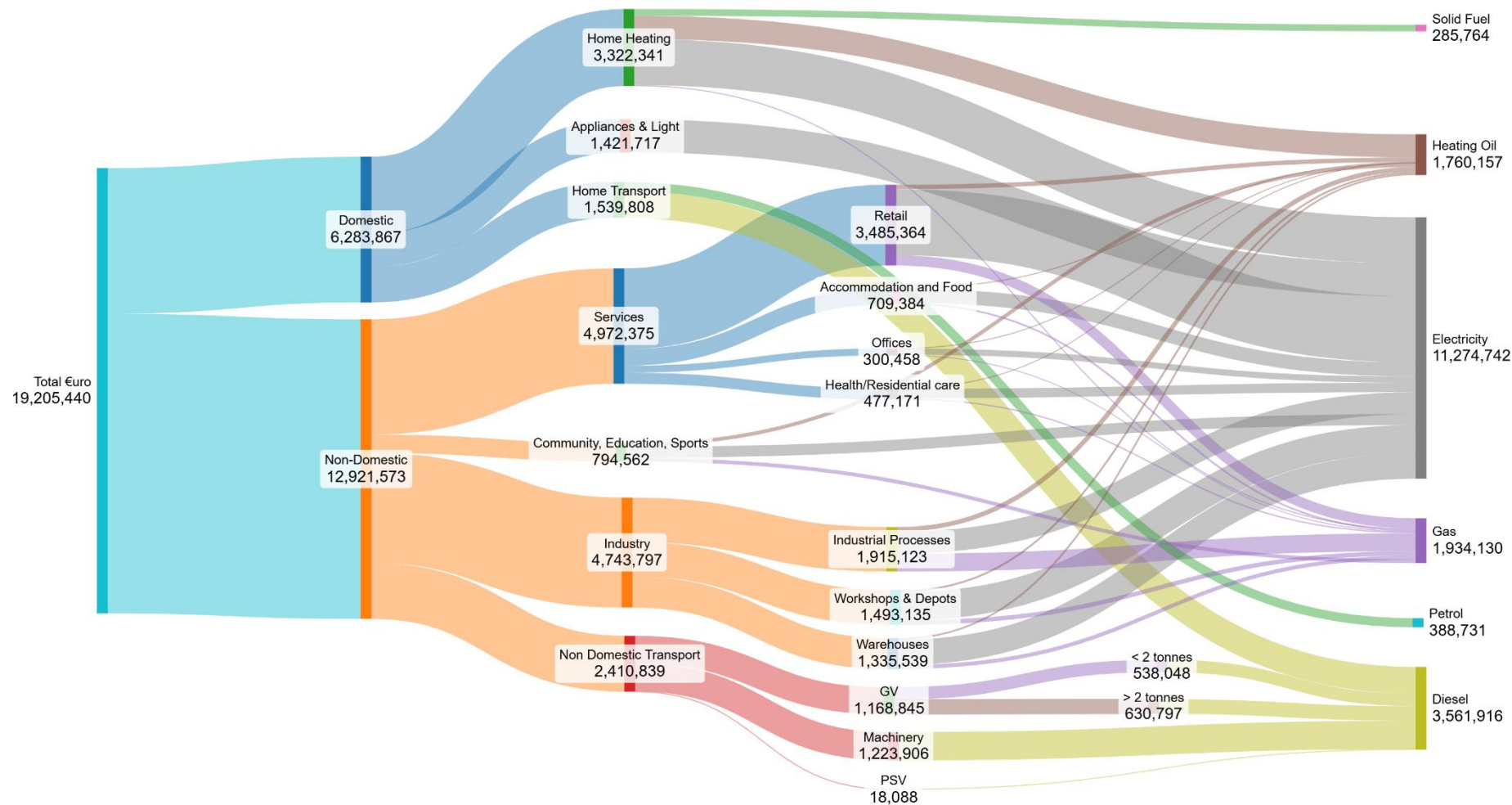


Figure 9: : Ballaghaderreen SEC Total Energy Use Cost in EURO/yr

Ballaghaderreen SEC Baseline Energy Use Study Summary



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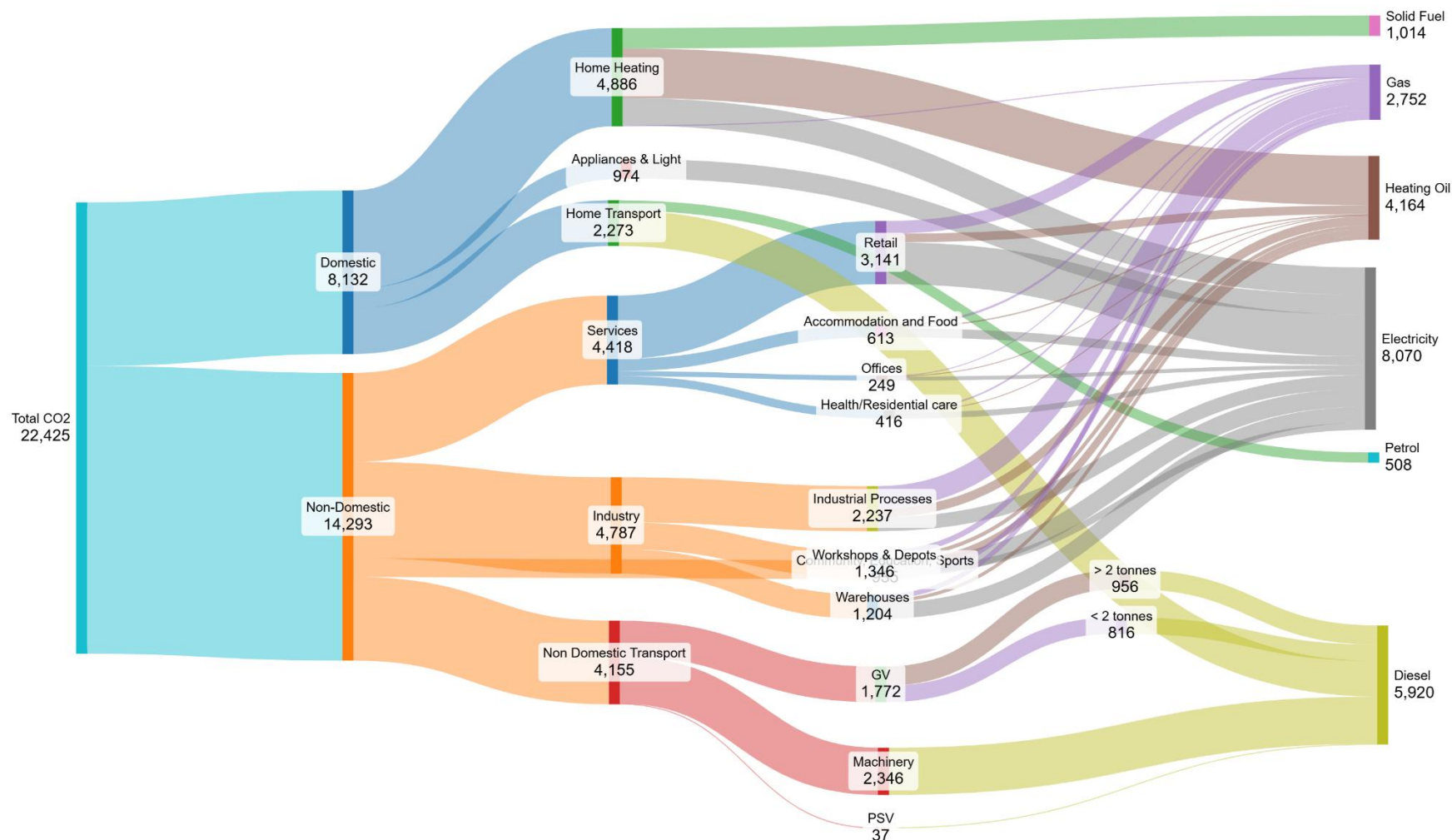


Figure 10: Ballaghaderreen SEC Total Energy Use tCO2eq/yr