

2. Executive Summary

This Energy Master Plan has been developed to allow Spanish Point Sustainable Energy Community (SEC) to look at the existing and future energy needs of Spanish Point.

The development of the plan has been led by a steering group that includes representatives from the Spanish Point SEC and initial assistance from the SEAI county mentor, the development of the plan has been funded as part of the SEAI Sustainable Energy Community program.

The objectives of the Energy Master Plan are to:

- Establish an energy baseline for the area through analysis of existing data and energy audits
- Create a [Register Of Opportunities \(RoO\)](#) with twin aims
 - Identify the potential to reduce overall energy usage through increased energy efficiency
 - Identify the potential to increase the use renewable energy in the most cost-efficient and realistic manner

2.1. Summary of Energy Baseline

The Energy Baseline shows where the energy in the EMP area comes from, the costs to the community and the associated emissions. It is based on the population based proportion of national figures provided by SEAI¹ which give the population of Spanish Point as 778. (See Annex [9.1. Annex 1 : Population calculation](#))

Table 1: Baseline Energy Usage

Sector	Electricity	Fossil Fuel	Renewable	Total
Residential	423 MWh	1130 MWh	67 MWh	1620 MWh
Community	0 MWh	0 MWh		0 MWh
Transport	6 MWh	816 MWh		822 MWh
Total Energy	428 MWh	1946 MWh	67 MWh	2442 MWh

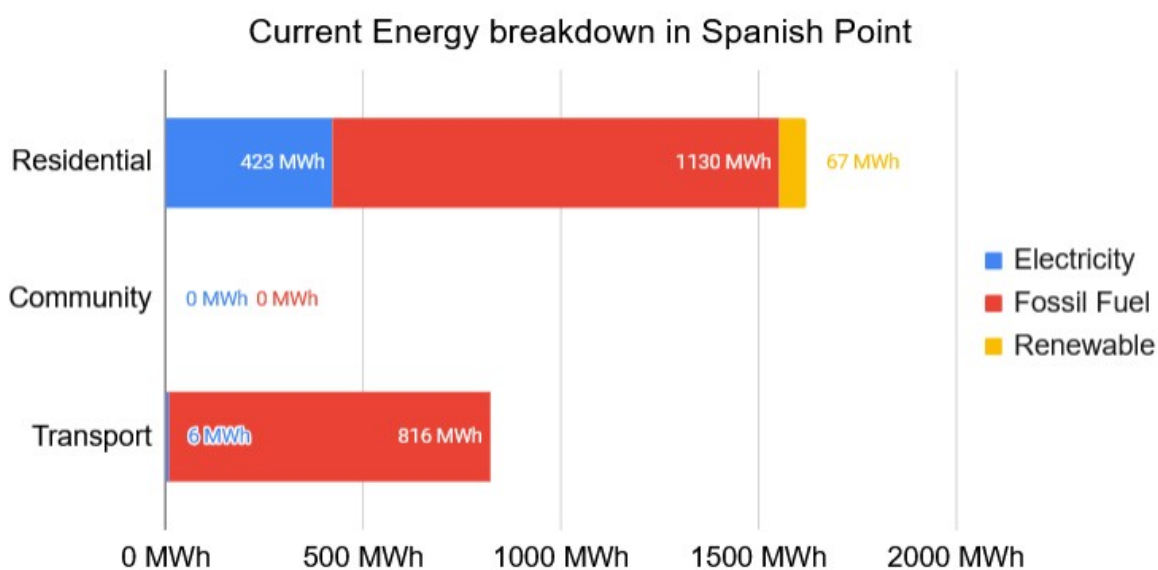


Figure 1: Annual energy usage in Spanish Point by sector and energy source

¹[SEAI National Energy Balance Summary 2022](#) and [Energy Balance Full Data](#)

From the chart above we see that the transport sector is considerably smaller in terms of energy usage. This is due to the high proportion of holiday homes in the area where the corresponding cars would be linked to the primary residence, not the holiday residence.

The community sector, which is limited to the school and Golf Club in Spanish Point, is negligible by comparison.

Table 2: Baseline Emissions & Cost

	Electricity	Fossil Fuel	Renewable	Transport	Total
CO2 Emissions	143 tCO2	337 tCO2	2 tCO2	192 tCO2	673 tCO2
Total Cost	€141,326	€197,497	€3,375	€131,899	€474,097

The following charts show the breakdown in emissions sources and total energy cost for Spanish Point.

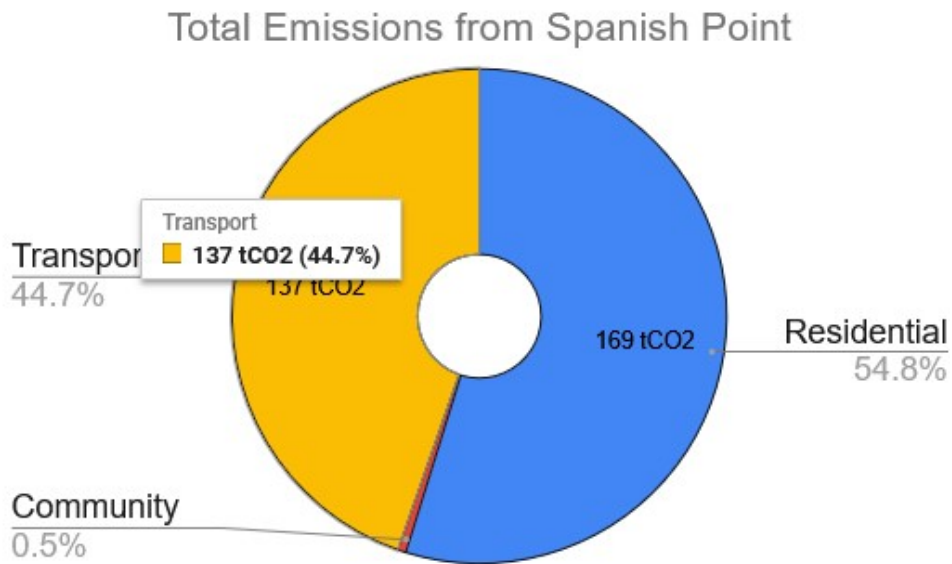


Figure 2: Total emissions breakdown for Spanish Point

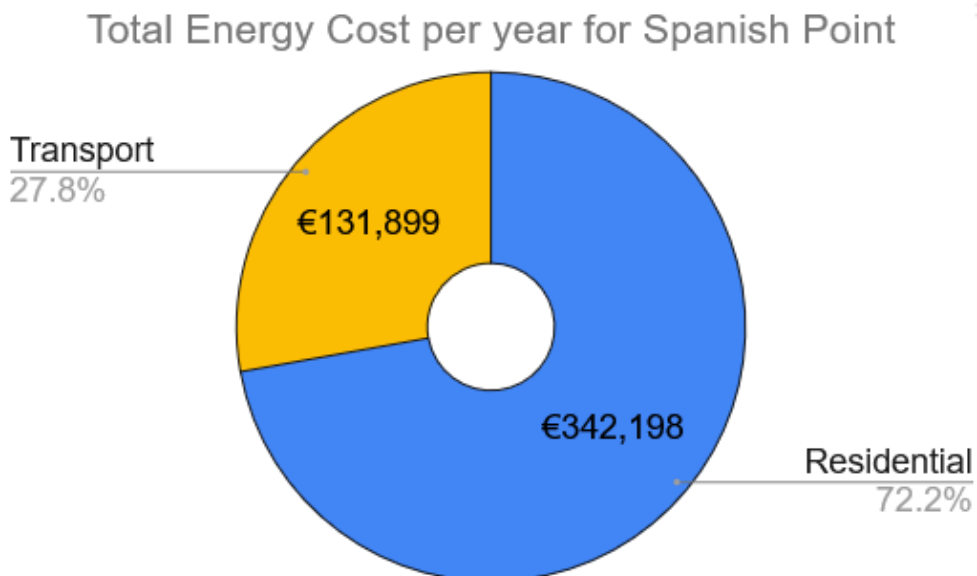


Figure 3: Total energy cost per year for Spanish Point

5. SEC Baseline Analysis

5.1. Analysis of Residential Sector

5.1.1. Summary of Residential Sector

- There are 154 homes in the Spanish Point, of which 64 are permanently occupied
 - The high proportion of vacant/holiday homes in Spanish point is a salient feature of the community
 - 58% of homes in the community are vacant / holiday homes
- Oil is by far the most common residential heating fuel (69%)
- ~24% homes already use at least one form of renewable energy.
- 36% of houses in the community were built pre-1971
- The average estimated heating and electricity cost is €3613 per year
- The estimated annual household CO₂ emissions from heating and electricity is 5.1 tons
- €984,397 is spent on heating and electricity in houses in the community each year

5.1.2. Number, Age and BER rating of the EMP area houses

The area covered by the EMP consists of 154 houses of which 64 are permanently occupied. We see the impact of the number of vacant home in the available statistics as some data sources will be based on the number of Census forms (i.e. 64) returned and others data sources will use the total number of houses (i.e. 154)

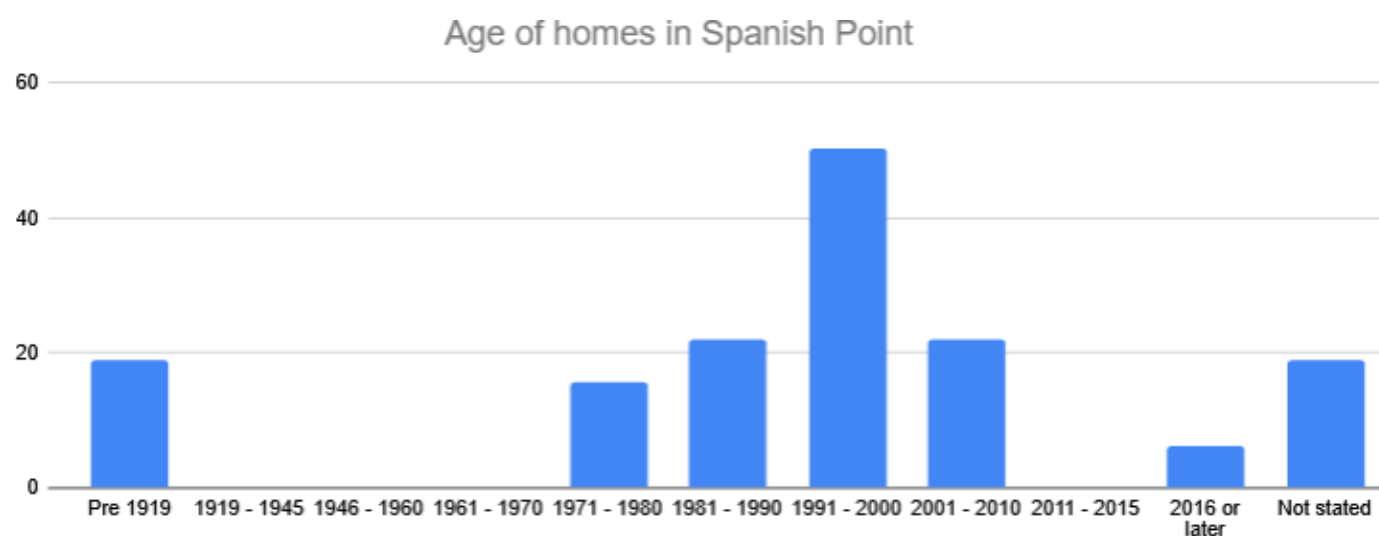
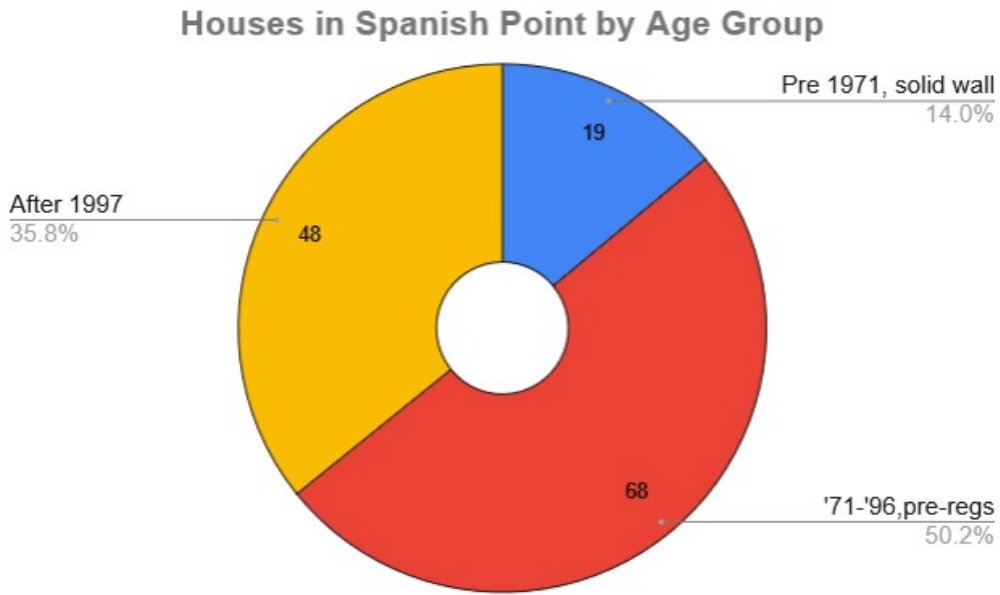


Figure 4: Age of homes in Spanish Point

In the chart above and below we see that a relatively small number of date from pre-1970 with a total absence of new homes from 1919 to 1970. Large numbers of houses were built in the 70's, 80's and 90's. The Celtic tiger boom of the 2000's is not as pronounced in Spanish Point as in other communities, probably as a result of the higher than normal level of buildign in the 90's.

From the perspective of identifying the types of retro-fit actions that will be relevant, it is useful to re-group the houses into larger group. The majority of houses built post 1970 (representing 50% of houses up to 1997) are cavity wall construction and it is also worth noting the introduction of building regulations in 1997.

A high proportion of homes were built after the introduction of building regulations which should mean the average build quality is higher than in other communities.



If we now look at the spread of BER ratings, which is the yardstick by which progress in the Climate Action Plan is measured, we see that there is huge potential for improvement .

NB : A note of caution is that currently 33% of homes in the EMP area have a BER rating so the table below does not necessarily reflect the entire EMP area.

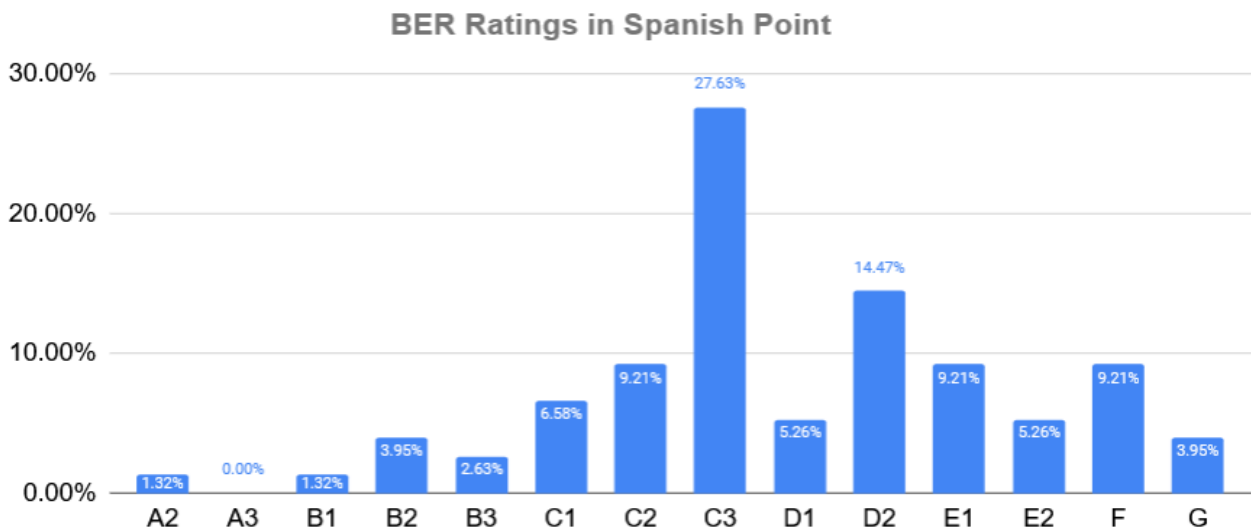


Figure 6: BER ratings in Spanish Point

As a reminder, one of the national goals is to get 500,000 homes (~25%) to a B2 or better by 2030.

If we compare this to figures for Clare and Ireland we see the following

BER Rating Comparison Spanish Point, Clare and Ireland

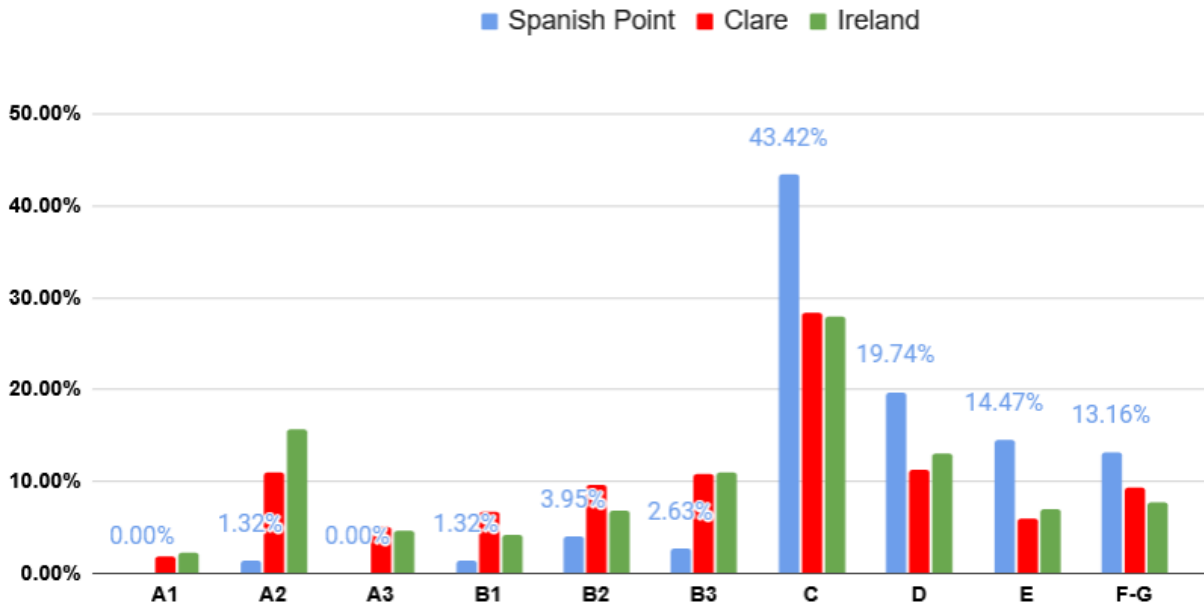


Figure 7: Comparison of BER in Spanish Point, Clare & Ireland

This chart again shows the potential that exists in the EMP area, specifically if the houses with BER in the range D to G are targeted. Such home can be considered the low-hanging fruit and the specific measures to improve these homes will be detailed in a later section.

It also shows that 65% of the homes in Spanish Point are in the BER B3 to D category, meaning that relatively minimal measures would be required to get them to the B2 target.

We see that 27.6% of homes in the EMP area are in the E-G zone. This indicates that the greatest overall energy/cost/emission savings could be made by focussing on this zone.

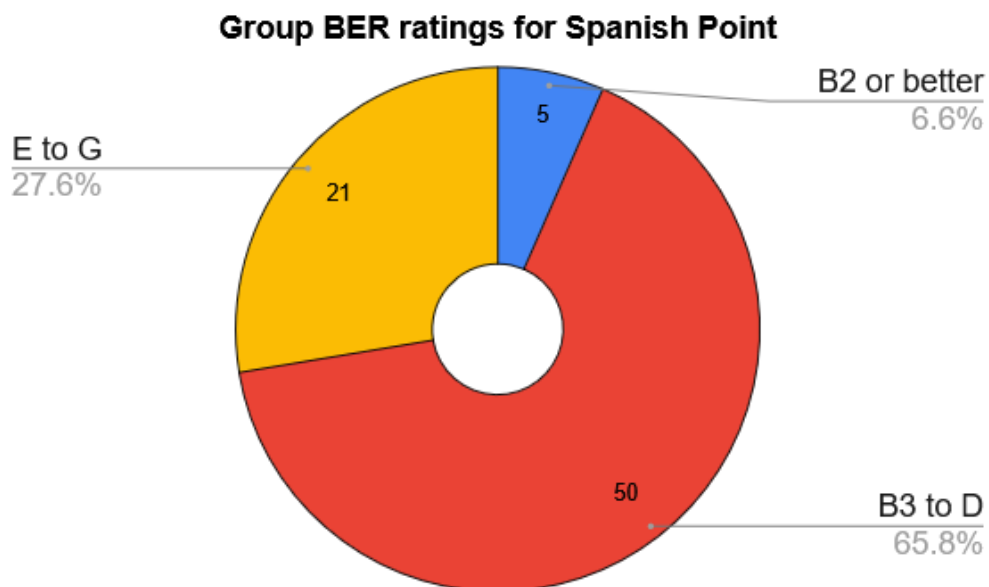


Figure 8: Grouping BER categories in Spanish Point

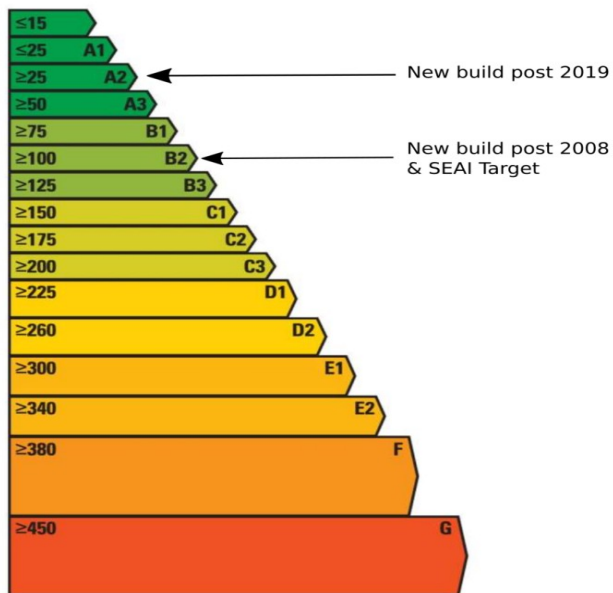
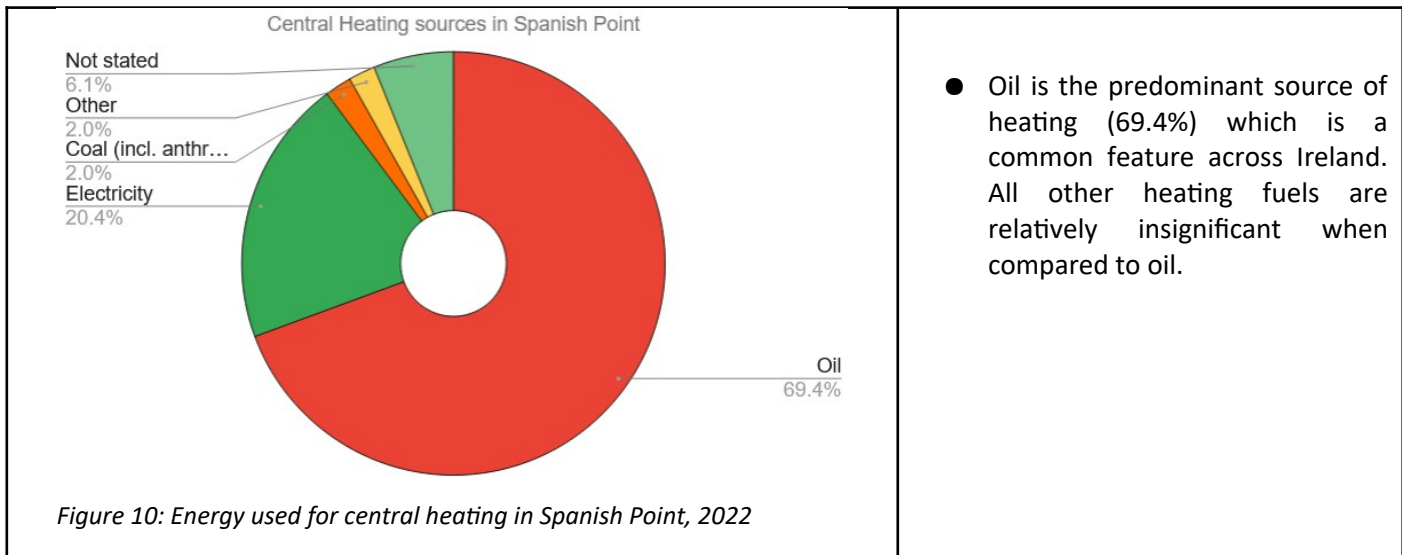


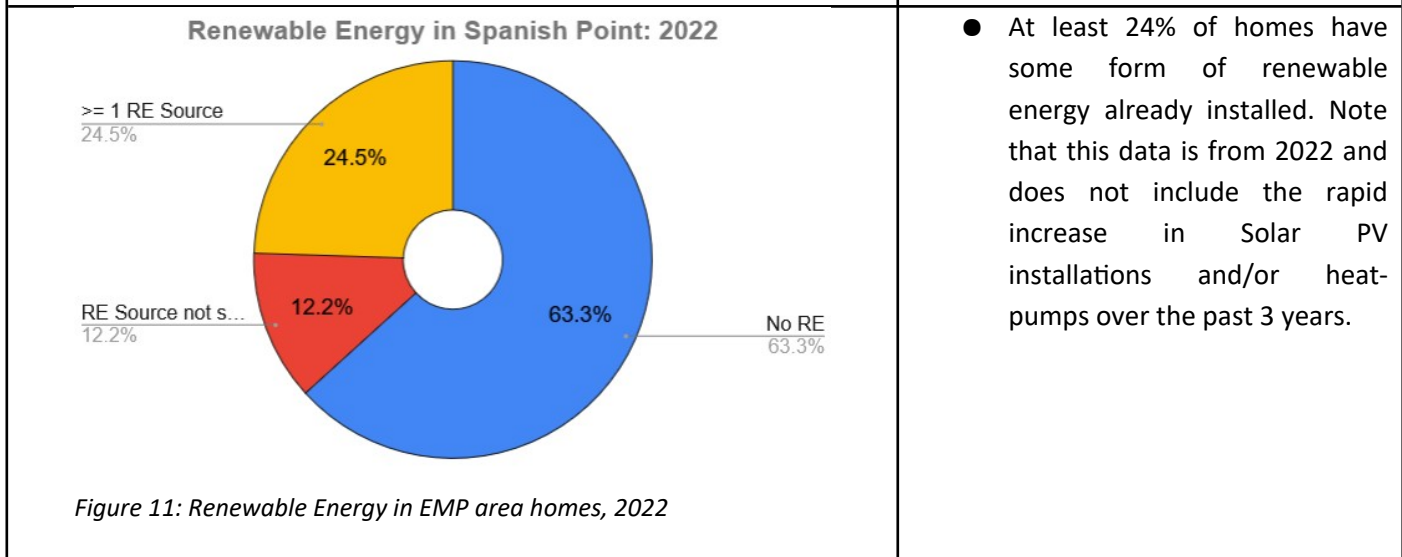
Figure 9: BER Ratings, full scale

5.1.3. Current Heating and Renewable Energy Sources in Spanish Point



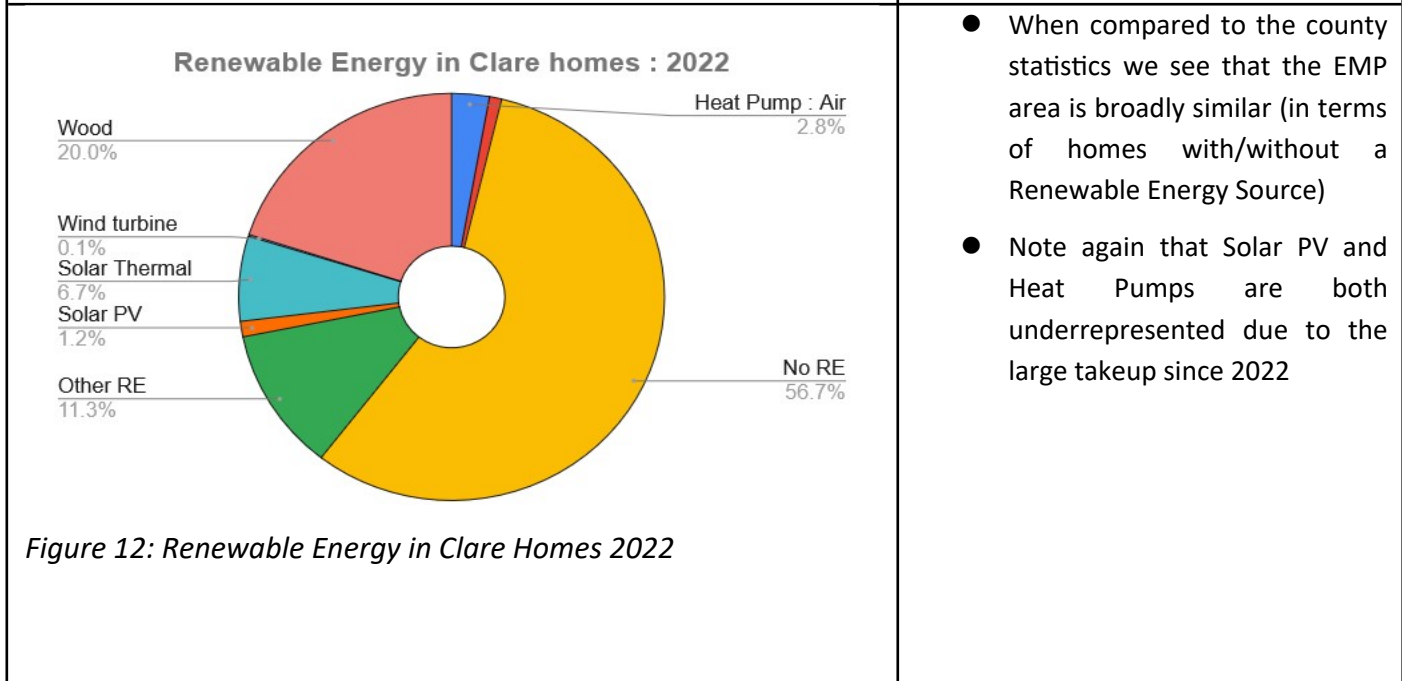
- Oil is the predominant source of heating (69.4%) which is a common feature across Ireland. All other heating fuels are relatively insignificant when compared to oil.

Figure 10: Energy used for central heating in Spanish Point, 2022



- At least 24% of homes have some form of renewable energy already installed. Note that this data is from 2022 and does not include the rapid increase in Solar PV installations and/or heat-pumps over the past 3 years.

Figure 11: Renewable Energy in EMP area homes, 2022



- When compared to the county statistics we see that the EMP area is broadly similar (in terms of homes with/without a Renewable Energy Source)
- Note again that Solar PV and Heat Pumps are both underrepresented due to the large takeup since 2022

Figure 12: Renewable Energy in Clare Homes 2022

5.1.4. Local Energy Survey Analysis

A survey has been carried out of local homes with the participation of the SEC members.

The survey can be seen [here](#).

The main points to be taken from the survey are :

- 25 replies from 61 occupied homes. This is a very high rate of engagement with surveys of this type.
- Of the 25 replies, 100% were homeowners
 - Given that 75% of homes in Spanish Point are owner-occupied this means that 54% of owner-occupiers answered the survey
 - The results of the questions on heating-type & transport usage were broadly similar to the CSO statistics in sections 5.2 and 5.4 and did not provide further useful information.
 - 80% of replies indicated that the homeowner was interested in an energy survey. This indicates that the appetite for further information is out there.

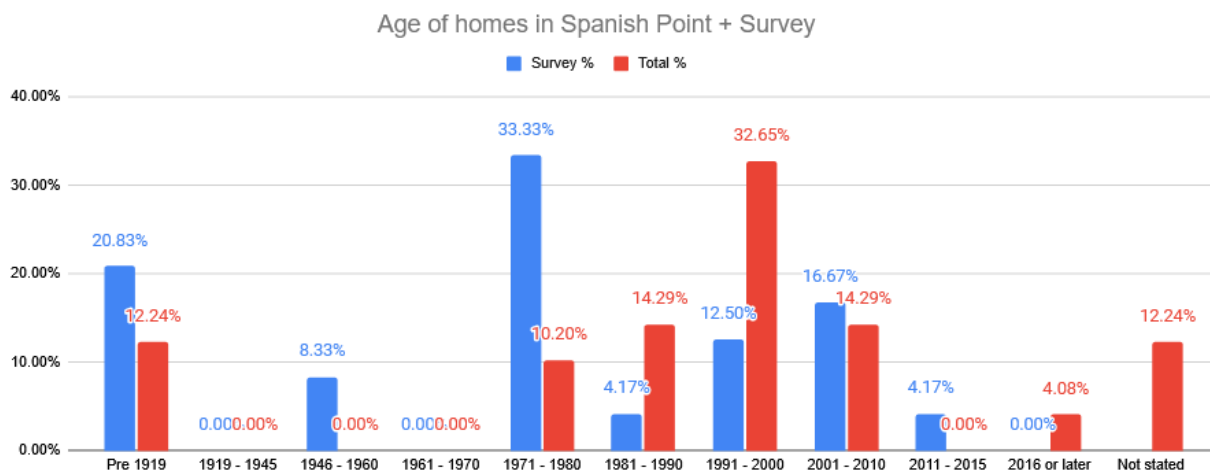


Figure 13: Comparing age of homes in survey responses to full parish

- Note the outlier in the 1946-1960 period where the national statistics show no houses dating from that period but 2 residents gave the age of their house as being from that period.

5.1.5. Local Energy Clinics

In addition to the standard features of the EMP, Clare Community Energy Agency also held energy clinics.

- These clinics allowed individuals or groups to book a 30 minute slot in-person with CCEA . Homeowners were free to ask any energy related questions.
- A total of 12 hours of clinics was allocated visits to individual houses.
- Of the 12 slots proposed, 11 were taken up.
- The breakdown of the topics covered were
 - 50% were most concerned about their electricity bills, how to understand them and how to address their energy use. These people all showed high interest in Solar PV.
 - 30% were most concerned about improving the energy efficiency of their homes
 - In these cases the main support provided were as follows
 - Explain the [different energy upgrades](#) routes available
 - [Individual home grants](#)

- [One Stop Shop](#)
- [Fully Funded Energy Upgrade](#) (conditions apply)
- Identify the grants available from SEAI
- Show where the [SEAI approved contractors](#) could be found
- 20 % were concerned equally by both electricity usage and overall energy efficiency.

The good take-up of the energy clinics, and the engagement of the homeowners, shows that there is an unanswered need for personal advice when people are undertaking energy upgrades to their home.

While all information is available on the SEAI website, the website itself can be daunting insofar as it presents too much information. It must also be accepted that not all people are comfortable with the use of websites for gathering information.

Another feedback from the clinics is that people were concerned about information received from salespeople from the various energy contractors and felt that they were being told what the salesperson wanted to sell, not necessarily what was in the best interests of the homeowner. The need for independent advice was expressed repeatedly.

8. Annexes

8.1. Annex 1 : Population calculation

- The area covered by the EMP is included in 1 Small Area
 - 037118006/037118008 in the Miltown Malbay Electoral Division
- CSO data from [table F1011](#) gives the population per Electoral Division

Table 19: Population of Spanish Point

Unit	Population
037118006/037118008	261
Total Population	261

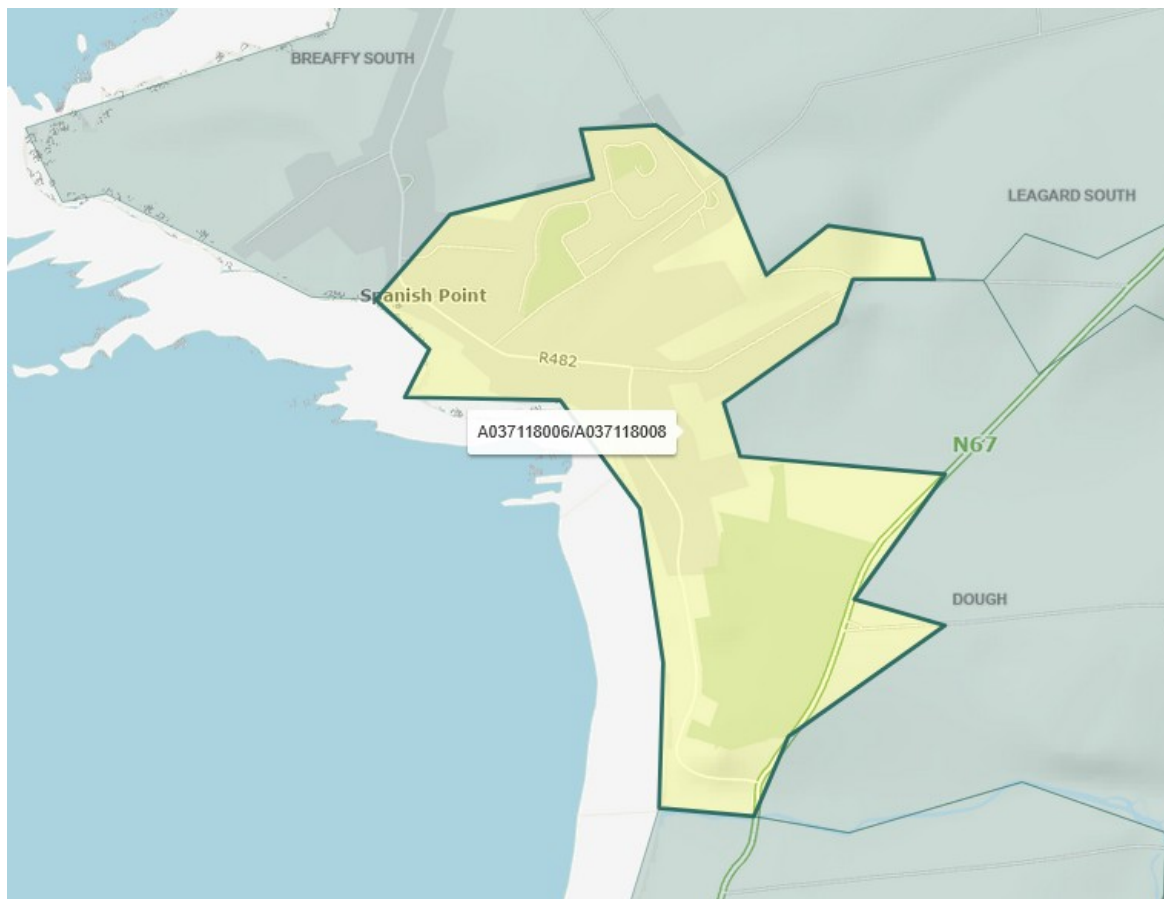


Figure 24: Small Areas / Electoral Divisions in the EMP