

2 What fuels do you use?

A breakdown of the different types of energy used at your site is shown below in Table 2a. The table below shows you where your business's energy comes from: the annual cost, how much you use in kilowatt hours (kWh) and how many tonnes of CO2 emissions it generates each year. The information has been taken from your energy bills which is the most accurate source.

Table 3: Energy consumption on-site

Reference Period: 01/2024-12/2024				
Energy source	Annual Cost (€)	Annual Use (kWh)	Annual Emissions (t CO2e)	Information source
Electricity – Grid	€2,967	4969 kWh	1.6 tCO2e	Bill
Total	€2,967.00	4969 kWh	1.6 tCO2e	

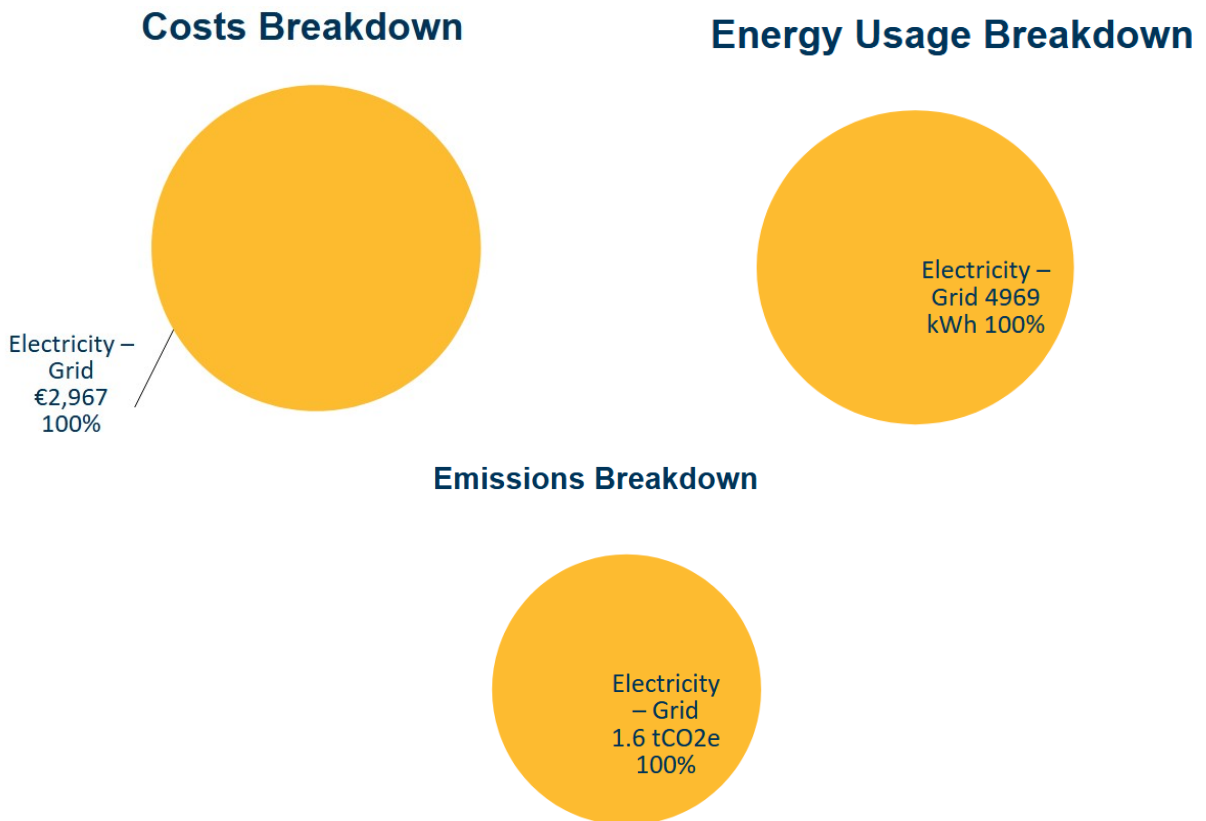


Figure 1: Breakdown of costs, emissions and energy usage

2.1 Site energy consumption summary

These graphs illustrate the information from the table above. You may find them useful when making your business case for investing in energy management measures.

3 Understanding your energy bills

The auditor analysed your energy bills to determine whether there are easy changes you can make to help you save money.

	Yes/No	Comments
Is the client on an appropriate tariff/tariffs?	No	No, the currently rate is considerably more expensive than rates currently available
Is max import capacity correct for client's requirements?	Yes	NA
Are there any other penalties?	No	NA
Comment on day/night/weekend profiles		24 hr rate suits the usage of the centre i.e. no major variation on weekends during busiest season.
Comment on any trends or anomalies in the data		Data is reasonable quality, all taken from actual or bills but some bills are based on estimates, i.e. no estimates
Has the client switched their electricity and/or gas contracts in the past 2 years?		Yes.
Any other comments		Should continue to review prices via brokers every 6 months

Table 4: Energy bills analysis

3.1 Bills analysis summary

- Electricity usage data is of medium quality as most bills are based on estimates. This hides the real usage/cost over time.
- Cost / kWh is high (~53c/kWh) and contact should be made with an energy broker to identify suitable traiffs to reduce energy costs.

3.2 Monthly trends in energy use

Your energy use changes over the course of the year, Figure 2 shows the trends in use for Electricity.

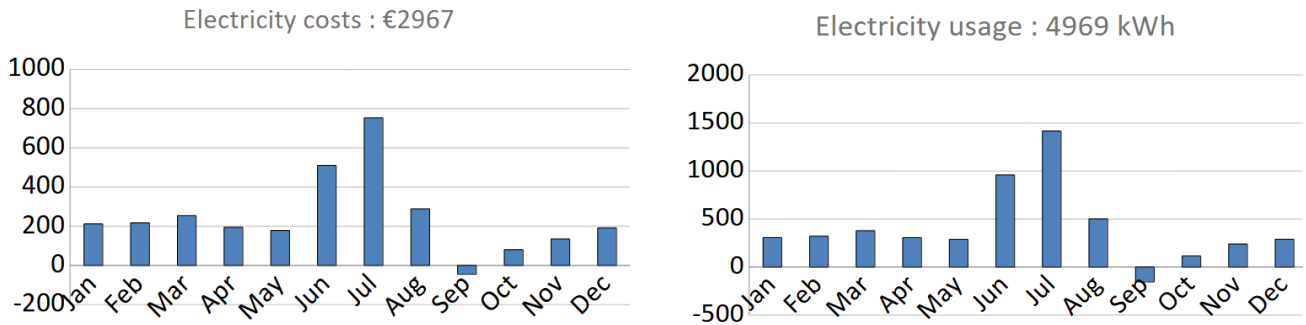


Figure 2: Monthly trends in energy usage

3.3 Monthly trends summary

- Even though many bills are based on estimates, we can still see the seasonal trend, i.e. usage considerably higher during the summer months when the scout centre is busiest.
- Without more detailed electricity monitoring it is difficult to identify the main electricity users but the information from the hall management indicates heavy usage of the instant hot water heaters

4 Electricity, heat and transport

4.1 Recommended actions to save energy

Your Auditor reviewed potential actions that your organisation can take to improve energy efficiency and generate renewable energy at your facility (specifically, through heat pumps, biomass, and photovoltaics). A list of actions is provided in Table 6a. Many organisations are interested in opportunities for generating renewable energy. A summary of your facility’s suitability for both renewable heating and renewable electricity (solar) is provided below and in Appendices D and E.

Renewable Energy – photovoltaics (solar)

Photovoltaics generate electricity using solar energy from the sun, providing a completely renewable, clean source of electrical energy. As part of this audit, the auditor assessed your facility’s suitability for generating electricity from solar energy. A brief summary of this assessment is provided below. The complete photovoltaic assessment tool may be found in Appendix E.

Summary of facility’s suitability for photovoltaics: **SUITABLE**

Overall suitability of the facility for expanded Solar PV system.	The scout centre is an excellent candidate for a Solar PV system. A 6 kW system is recommended to cover current usage.
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Impact of solar PV:

If facility is suitable for expanded solar PV:	
Estimated annual kWh savings (only from PV)	5,200
Estimated emissions saved (tCO2e)	1.60

Table 5: Impact of Solar PV system

Study of Solar PV suitability and sizing

- the area with the yellow marker in Figure 3 would allow for a potential ~6 kW Solar PV system.
- We would recommend an **6 kW system** , given the current usage of the centre.
- Given the location/orientation of the roof this would produce **5200 kWh per year** ([taken from this online calculator](#)).
- Recommendation summary
 - Solar PV System size : 6 kW
 - Battery size : 10 kWh
- Quotes for such a Solar PV system can be requested from any of the [registered SEAI installers](#).



Figure 3: Proposed location of Solar PV system

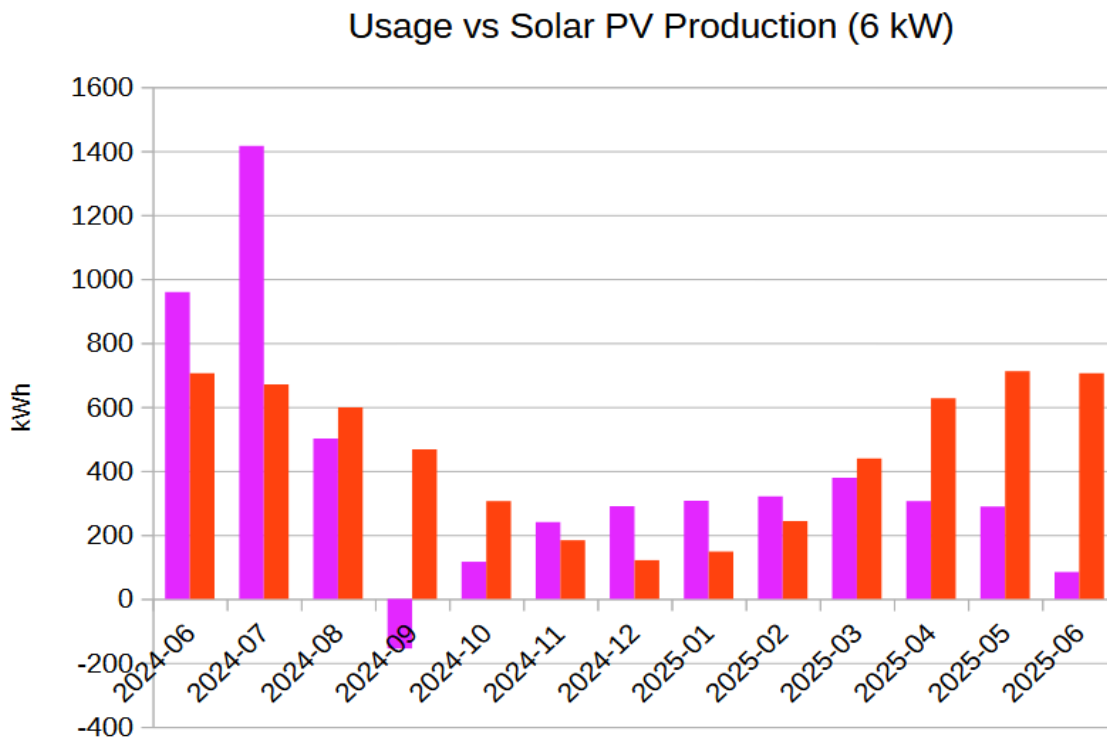


Figure 4:

Projected usage and production with an 8 kW Solar PV system