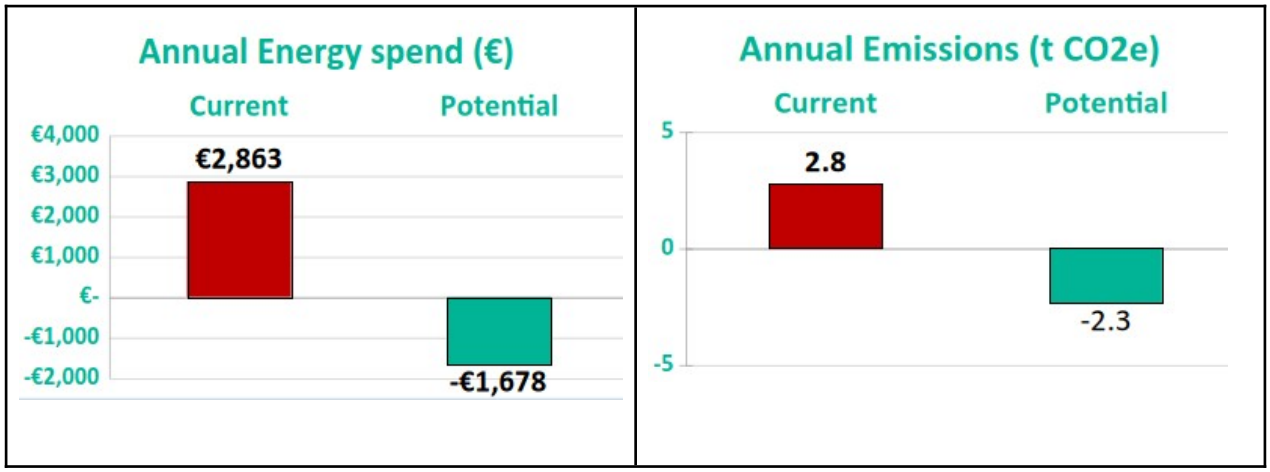
For: St.John’s Hall, Ballyvaughan, Co. Clare





Energy & Emissions



Recommended actions

Description	Energy saved (€ per year)	Emissions reduction (t CO2e /y)	Cost of Action (€)	Payback period (years)	First Steps
9 kW Solar PV system	€2,874	2.69	€14,700	5.1	* Request Quotes * Apply to SEAI
Cavity pumping of all external walls of extensions	€167	0.24	€529	3.2	* Engage with a Project Coordinator
Replace all windows in extension	€83	0.12	TBD	TBD	* Engage with a Project Coordinator
Replace all external doors	€83	0.12	TBD	TBD	* Engage with a Project Coordinator
Add internal door between hall and extension	€83	0.12	TBD	TBD	* Engage with a Project Coordinator
Improve attic insulation in extension	€33	0.05	€840	25.2	* Engage with a Project Coordinator
Replace Gas boiler by Air-to-air heatpump	€1,217	1.75	€8,400	6.9	* Engage with a Project Coordinator
Total	**€6,499.27**	**14.9 tCO2e**	**€28,160**	**NA**	

Support Scheme for Energy Audits (SSEA)

Energy Audit Report



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1 Site description

This section provides an overview of your site and key information about the visit. A site tour checklist is provided in Appendix A.

Organisation name	St.John’s Village Hall
Site address	Ballyvaughan
County	Co. Clare
Eircode	H91 AV82
Useful floor area (m2)	173.88
No. of personnel working at site	0
Is shift work carried out onsite?	No
Size of company fleet (no. of vehicles)	0
Typical operating hours per year	1326
Sector	Other Service Activities - please specify in comments
Build date (estimate if necessary)	pre-1900
Facility owned or leased	Owned

Table 1: Site Information

SEAI Application ID	NA
Site Visit Date	2026/01/26
MPRN Number	10009664390
GPRN Number	NA
Site Contact name	Cathleen Connole
Site Contact job title	Hall Manager
Energy Auditor name	Colm Garvey
Energy Auditor company	Clare Community Energy Agency
Comments	Village Hall

Table 2: Visit Information

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.

Energy source		Annual Cost (€)	Annual Use (kWh)	Annual Emissions (t CO2e)	Information source
LPG		€1,666.81	10464 kWh	2.4 tCO2e	Bill
Electricity – Grid		€1,195.82	1119 kWh	0.4 tCO2e	Bill
Total		**€2,862.63**	**11583 kWh**	**2.8 tCO2e**	

Table 3: Energy consumption on-site

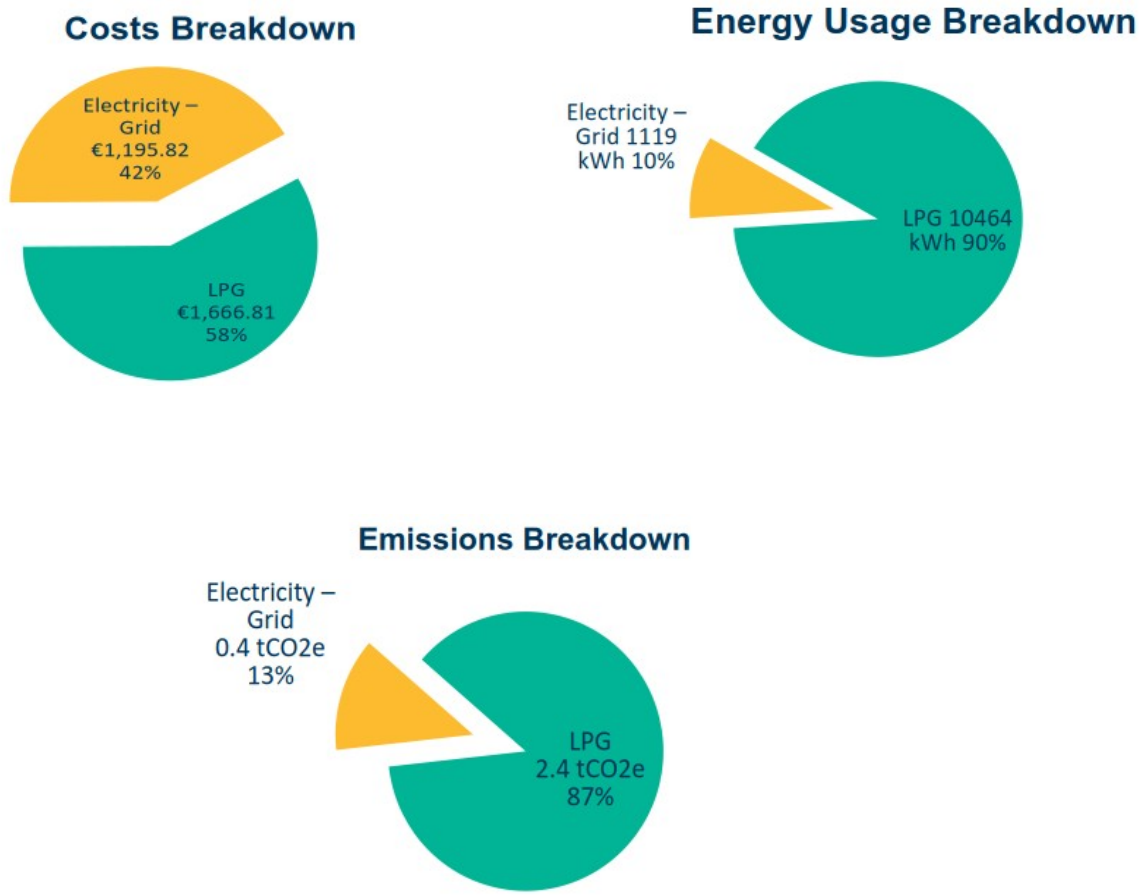


Figure 1: Breakdown of costs, emissions and energy usage

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	24 hr rate with Electric Ireland, better value available on the market currently
Is max import capacity correct for client's requirements?	Yes	
Are there any other penalties?	No	
Comment on day/night/weekend profiles		24 hr rate suits the usage of the hall i.e. no major variation on weekends or night-time usage during busiest season.
Comment on any trends or anomalies in the data		Data is relatively good quality, mostly taken from actual or customer readings, i.e. few 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

- While the electricity bill is relatively low, in terms of usage (~1200 kWh/year), the electricity supplier should be reviewed as there are better prices available at the moment
- All data is of relatively good quality as the club has provided all bills for the period, whether based on actual readings or estimates (33%).

3.2 Monthly trends in energy use

Your energy use changes over the course of the year, for example your use of diesel will be higher when floodlighting is used. Figure 2 shows the trends in use for Electricity, Oil & Coal.

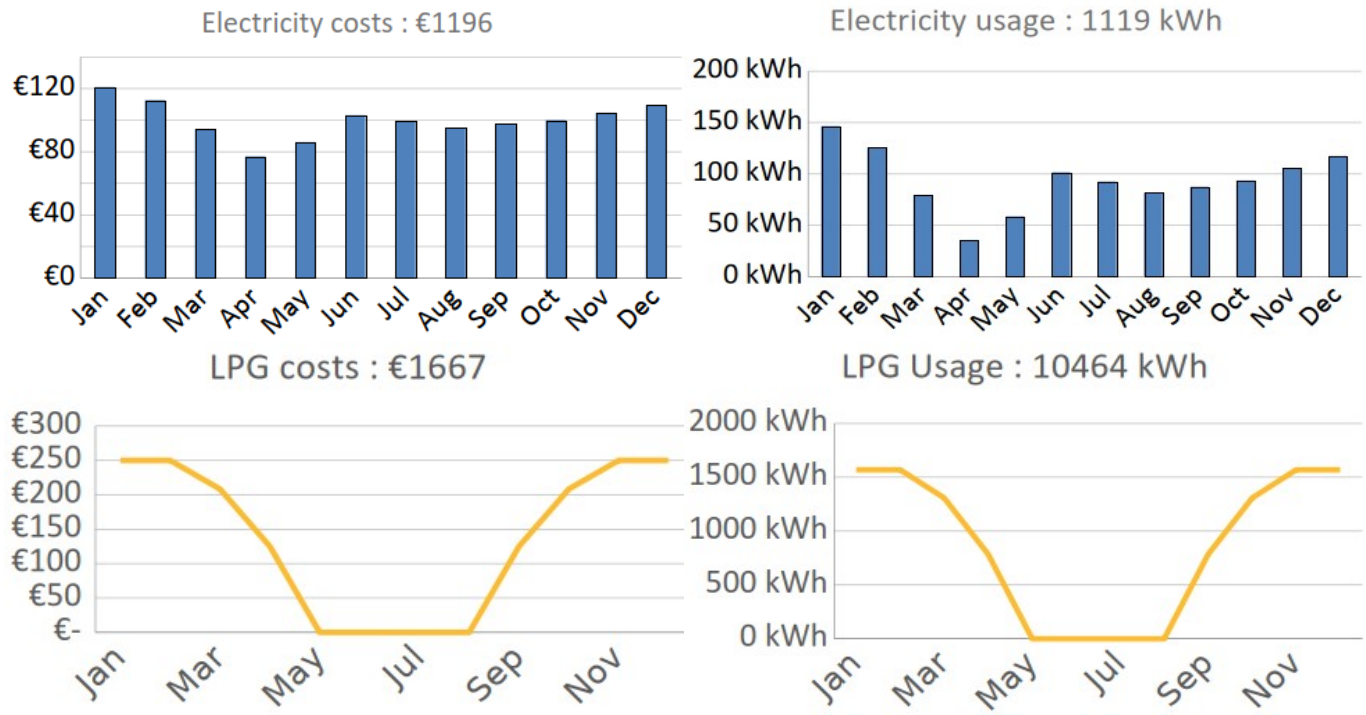


Figure 2: Monthly trends in energy usage

3.3 Monthly trends summary

- The electricity usage figures are relatively level throughout the year. Where we see major changes from the average represent periods where bills were based on estimates.
- No detailed LPG usage figures are available. The LPG tanks is typically topped up twice per heating season depending on usage.

4 Electricity, heat and transport

The most significant electricity, thermal (heat) and transport energy users at your site have been identified and are listed below.

Electricity User	Cost per yr (€)	Usage per yr (kWh)	Usage (% of total)	Emissions per yr (t CO2e)	Comments
Lighting	€597.91	560 kWh	50.0%	0.2 tCO2e	Usage of main hall and rear meeting room
Kitchen appliances	€538.12	504 kWh	45.0%	0.2 tCO2e	Dishwasher, fridge, extractor fan, oven, kettle
Office equipment	€59.79	56 kWh	5.0%	0.0 tCO2e	PC, photocopier, lights
Total	**€1,195.82**	**1,119 kWh**	**100.00 %**	**0.4 tCO2e**	

Table 5: Significant Electrical Energy Users

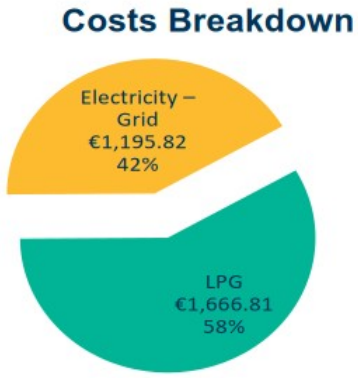
Thermal Energy User	Cost per yr (€)	Usage per yr (kWh)	Usage (% of total)	Energy source	Emissions per yr (t CO2e)	Comments
Space Heating	€1,500.13	9,418 kWh	90.0%	LPG	2.2 tCO2e	No breakdown available between space heating and hot water requirements
Hot water requirements	€166.68	1,046 kWh	10.0%	LPG	0.2 tCO2e	Anecdotally, hot water requirements are low.
		00 kWh				
Total	**€1,666.81**	**10,464 kWh**	**100%**		**2.4 tCO2e**	

Table 6: Significant Thermal Energy users

Vehicle type	Number of vehicles	Fuel type	Fuel cost per yr (€)	Usage per yr (litres)	Usage per yr (kWh)	Emissions per yr (t CO2e)	Usage (% of total)
No vehicles							
Total	-		€ -	0	0	0	0%

Table 7: Significant Transport Energy User

4.1 Where is your money going



- As can be seen from the chart above, LPG costs are the larger part of the energy budget.
- This corresponds with the current usage of the hall where a large proportion of activities occur in the mornings and evenings on a year round basis.

5 Electricity, heat and transport

5.1 Actions already taken

In the years leading before this energy audit, a number of energy efficiency actions actions have already been taken in order to reduce energy usage in the club.

Completed actions	Estimated impact (kWh)	Comments
Windows in old hall replaced	NA, no reference	Installed in 2016
Insulated slab (4”) on internal walls of old hall	NA, no reference	Done with upgrade of hall in 1992

Table 8: Actions already taken

5.2 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 – heating

SEAI’s Support Scheme for Renewable Heat supports renewable heating in businesses by offering a grant for heat pumps and a tariff for biomass/biogas boilers and CHP. As part of this audit, the auditor assessed your facility’s suitability for converting to renewable heat. A brief summary of this assessment is provided below. The complete renewable heat assessment tool may be found in Appendix D. Further information about the scheme may be found on the website[1] or by emailing SSRH@seai.ie

Summary of facility’s suitability for renewable heat: **NOT SUITABLE**

Overall suitability of the facility for renewable heat.	If the recommended actions to upgrade the building fabric are carried out, then the club would be a good candidate for an air to air heatpump

[1] https://www.seai.ie/business-and-public-sector/business-grants-and-supports/support-scheme-renewable-heat/

If facility is suitable for renewable heat:	
Estimated annual kWh savings	10,464
Type of energy saved	LPG
Estimated emissions saved (tCO2e)	2.40

Table 9: Impact of Renewable Heat

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 hall is an excellent candidate for an 9 kW Solar PV system.

Impact of solar PV:

If facility is suitable for expanded solar PV:	
Estimated annual kWh savings (only from PV)	8,100
Estimated emissions saved (tCO2e)	2.63

Table 10: Impact of Solar PV system

Study of Solar PV suitability and sizing

-

- the area highlighted in yellow in Figure 3 would allow for a potential 9 kW Solar PV system.
- Given the location/orientation of the roof this would produce **~8300 kWh per year** (taken from this online calculator
- This will exceed the current requirements of the hall, would cover the additional requirements of a air-to-air heat pump to replace the LPG boiler and leaves a margin for other options like community resilience, EV chargingy, e-bike charging

- Recommendation summary
  - Solar PV System size : 9 kW
  - Battery size : 20 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

5.3 Recommended actions

Your auditor has identified the top actions you should take to improve the energy efficiency of your site and save on your energy costs. These actions are listed in Table 6d below.

,	Energy savings (kWh per yr)	Type of energy saved	Cost savings (€ per yr)	Emissions reduction (t CO2e per yr)	Estimated cost of action (€)	Payback period (years)	Potential supports	Comments / Additional info	First Steps
9 kW Solar PV system	8,300	Electricity – Grid	€2,874	2.69	€14,700	5.1	Microgeneration scheme	* Assuming the system is an 9 kW of PV panels plus a 20 kWh battery system * Assuming a cost of ~€18k ex. Vat for a 9 kW system + 20kWh of batteries * Assuming an SEAI grant of €3300 * Assuming that 75% of PV production is used in the club(saving ~39c/kWh) * Assume the remaining PV production is exported at 20c/kWh * Assuming a cost of ~€18k ex. Vat for a 9 kW system + 20kWh of batteries * Assuming an SEAI grant of €3300 * Assuming that 75% of PV production is used in the club(saving ~39c/kWh) * Assume the remaining PV production is exported at 20c/kWh	* Request Quotes * Apply to SEAI
Cavity pumping of all external walls of extensions	1,046	LPG	€167	0.24	€529	3.2	Communities grant	* Assuming a 10% reduction in kWh for heating * Assuming 21m * 2.4m (50.4m2) of cavity wall to be pumped @ €15/m2 * Assume 30% funding from Community Grant scheme as worst case * Assuming 21m * 2.4m (50.4m2) of cavity wall to be pumped @ €15/m2 * Assume 30% funding from Community Grant scheme as worst case	* Engage with a Project Coordinator
Replace all windows in extension	523	LPG	€83	0.12	TBD	TBD	Communities grant	* Assuming a 5% reduction in kWh for heating * Assume 30% funding from Community Grant scheme as worst case * Assume 30% funding from Community Grant scheme as worst case	* Engage with a Project Coordinator
Replace all external doors	523	LPG	€83	0.12	TBD	TBD	Communities grant	* All external doors are non-insulated single wood-panels doors * To be replaced my draught-sealed PVC doors * Assuming a 5% reduction in kWh for heating * Assume 30%	* Engage with a Project Coordinator

								funding from Community Grant scheme as worst case * To be replaced my draught-sealed PVC doors * Assuming a 5% reduction in kWh for heating * Assume 30% funding from Community Grant scheme as worst case	
Add internal door between hall and extension	523	LPG	€83	0.12	TBD	TBD	Communities grant	* Assuming a 5% reduction in kWh for heating * Avoid heating main hall and extension when only one area is in use * Assume 30% funding from Community Grant scheme as worst case * Avoid heating main hall and extension when only one area is in use * Assume 30% funding from Community Grant scheme as worst case	* Engage with a Project Coordinator
Improve attic insulation in extension	209	LPG	€33	0.05	€840	25.2	Communities grant	* Assuming that attic insulation in the extension (60m2) will need to be improved (brought up to 300mm) @ cost of €20/m2 * Assuming that the old hall attic cannot be accessed and thus improved (already 4”insulated slab) * Assuming a 2% reduction in kWh for heating * Assume 30% funding from Community Grant scheme as worst case * Assuming that the old hall attic cannot be accessed and thus improved (already 4”insulated slab) * Assuming a 2% reduction in kWh for heating * Assume 30% funding from Community Grant scheme as worst case	* Engage with a Project Coordinator
Replace Gas boiler by Air-to-air heatpump	7,639	LPG	€1,217	1.75	€8,400	6.9	Communities grant	* Assuming that all heat-loss actions have been done * Assuming this totally removes LPG usage * Assuming that kWh required will be reduced by 75% * Assuming the remaining electrical load will either be met by Solar PV or night-rate electricity via batteries * Assume cost of €12k with grant of 30% * Assuming this totally removes LPG usage * Assuming that kWh required will be reduced by 75% * Assuming the remaining electrical load will either be met by Solar PV or night-rate	* Engage with a Project Coordinator

								electricity via batteries * Assume cost of €12k with grant of 30%	

Table 11: Recommended Actions

Appendix D – Renewable Heat Assessment

	Result	Comments
Is the client using fossil fuel for heating purposes?	Yes	LPG
Suitability for heat pump		
Could a heat pump offer an alternative? e.g. does the facility have a steady low/medium heating requirement?	Yes	The Hall has a relatively low heating requirement considering the size of the building and the given usage patterns
o If yes for space heating: Is it likely that the building will achieve the required U values for a heat pump to operate effectively?	Yes	Assuming that upgrade actions are carrie dout as specified
o If yes for space heating: What fabric and ventilation upgrades may be required? If "Other" please specify in Comments	Other	Attic sealing and insulation Pumped cavity insulation Note that all doors/windows are less than 10 years old. No upgrades required for the 2010 part of the school, focus on the 1985 and 2004 parts
Rank heat pump readiness for space heating: 1 – major upgrades required to all/most building elements, 2- major upgrades required to one building element, 3 – minor upgrades required to all/most building elements, 4 – minor upgrade required to one building element, 5 – heat pump ready	3	See above
o If yes for process heating: Is it likely that a heat pump could deliver the heat requirement?	N/A	N/A
Estimate of emissions reduction for heat pump conversion	Yes	Assuming a minum COP of 3, reducing the heat kWh by 15000, see EE Actions. The remaining 41 000 kWh of heat could be met with 14000 kWh of electricity Even if this is 100% from grid , this would give an emissions saving of 7 tCO”e

Table 12: Renewable Heat Assessment

Suitability for biomass		
Could biomass/biogas offer an alternative? i.e. does the facility have high peak loads?	N	The labour requirements render this unattractive for the hall
o If yes, are there any space constraints, e.g. for the boiler/CHP unit, and the delivery and/or storage of fuel? If "other" please specify in comments	Y	No storage area available
o If yes, are there any local supply of waste biomass or local biomass enterprises that can provide fuel stock? Please specify in comments	N	
o If yes, are there dedicated maintenance personnel on site?	N	

Table 13: Suitability for biomass

Appendix E – Solar photovoltaic assessment

Suitability for solar PV	Result	Comments
Does the client use electricity from non-renewable sources?	Yes	Normal supply from national grid
Does the client appear to have a suitable roof for the installation of solar photovoltaic panels? Consider size, tilt angle, orientation and shading.	Yes	The south facing roof would be suitable for at least a 9 kW Solar PV system
If the roof is not suitable, is there an alternative location available?	N/A	See above
If solar PV is feasible, what is the client's estimated required power output?	9 kWp	This will give an annual output of ~8.3 MWh which would cover the entire energy requirement of the hall (electricity and heating)
Estimate the proportion of the client's electricity requirements that could be met through installing solar PV	> 100%	The system would cover the entire electricity need and would also cover a medium term switch from LPG heating to an air-to-water heatpump

Table 14: Suitability for Solar PV

Appendix F – Glossary of terms

Term	Definition
biogas	Biogas is a form of renewable energy. Biogas is produced through the anaerobic digestion or fermentation of organic feedstocks including biomass, sewage and agricultural and municipal wastes. The biogas can then be burnt as a renewable fuel.
biomass	Biomass fuel is a form of renewable energy generated from burning organic material such as wood, poultry litter, and straw
CHP	Combined Heat and Power: an energy efficient way to generate electricity whilst capturing and using the heat that would otherwise be wasted.
CO_2e	Carbon dioxide equivalent: a standard unit for measuring emissions by expressing the impact of all greenhouse gases (including carbon dioxide, methane and nitrous oxide) in terms of the amount of carbon dioxide that would create the same amount of atmospheric warming
electricity imported	Electricity that has been generated offsite for use at your facility
energy efficiency	Using less energy to perform the same task, i.e. reducing energy waste
fossil fuel	Carbon-based fuels from fossil hydrocarbon deposits, including coal, peat, oil, and natural gas. Fossil fuels produce carbon dioxide (CO_2) when burned, which is a greenhouse gas
GPRN	Gas Point Registration Number (GPRN): a unique reference number assigned to every gas point on the natural gas network. A gas point is a point where gas is taken from the gas network system, measured by a meter and consumed by an end user. Each individual gas point has its own GPRN. GPRNs have up to 7 digits.
heat pump	Electrical devices which convert energy from the air outside of your home into useful heat, in the same way a fridge extracts heat from its inside. Different types of heat pump draw heat from different sources: air, water or the ground.
kWh	Kilowatt hour: a unit of energy, equivalent to operating a 1,000 watt appliance running for one hour.
LPG	Liquefied Petroleum Gas is manufactured in oil refining, crude oil stabilisation and natural gas processing plants and consists of propane and/or butane gases. Typically used in boilers and for cooking.
Maximum Import Capacity (MIC)	The upper limit on the total electrical demand that a consumer can place on the network system.
MPRN	A Meter Point Reference Number (MPRN) is a unique 11-digit number assigned to every single electricity connection and meter in the country. Each individual meter has its own MPRN.
natural gas	Natural gas is a naturally occurring fossil fuel that is composed mainly of methane. It is piped through a national gas transmission & distribution network (in gaseous form, under pressure) directly to end users in the industrial, power generation, services and domestic sectors.
renewable energy	Energy from renewable non-fossil fuel sources, e.g. wind, solar (both solar thermal and solar photovoltaic) and geothermal energy, ambient energy, tide, wave and other ocean energy, hydropower, biomass, and biogas
solar photovoltaics	Also called “solar PV”, solar panels that generate electricity when exposed to sunlight
thermal energy	Thermal energy refers to all solid, liquid and gas fuels used for non-transport purposes. This includes both fossil and renewable fuels used in boilers, space & process heating systems, catering, fuel-based electricity generators (onsite), CHP and in all plant, equipment & other non-road mobile vehicles.

Appendix G – Completion of Works form

A. Audit Details

Business/Organisation Name	
Applicant SSEA ID	
Facility MPRN	
Facility Address	
Facility Eircode	

B. Auditor declaration

By signing this Completion of Works, the undersigned states that:

- The Energy Audit carried out at the above Facility Address has been delivered according to the SSEA Terms and Conditions and SSEA Guidance for Auditors.
- The information provided in this Energy Audit is true and correct to the best of my knowledge.

Signed	
Date	
Name	COLM GARVEY , CLARE ENERGY AGENCY
Date SSEA site visit was carried out	
Total cost of this SSEA Energy Audit, including the Voucher	NA

C. Applicant declaration:

By signing this Completion of Works, the undersigned states on behalf of the Business/Organisation named above that:

- A visit to the above Facility Address was carried on the date referred to in Section B by the Auditor referred to in Section B for the purpose of completing an energy audit,
- I have received a copy of the SSEA Report from the Auditor,
- I understand the Report's findings, and
- I am satisfied with the site visit and with the quality of the Energy Audit Report

Signed	
Date	
Name	
Title/Position in Business/Organisation*	

* Must be signed by a Director or Senior Manager (or equivalent level) of the business/ organisation referenced below.

NOTE: This Completion of Works form should be returned with all other completed documents relating to this application. If any form is incomplete or missing, then the request for payment will be returned.

Notice for Applicants

Applicants please note:

This document was prepared by a Registered Energy Auditor and recommends practical ways that you can improve the energy performance of your business, using information gathered from an assessment of your business's current energy performance. Please seek professional advice before undertaking any energy upgrade works.

Sustainable Energy Authority of Ireland

SEAI is Ireland's national energy authority investing in, and delivering, appropriate, effective, and sustainable solutions to help Ireland's transition to a clean energy future. We work with the public, businesses, communities, and the Government to achieve this, through expertise, funding, educational programmes, policy advice, research and the development of new technologies.

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