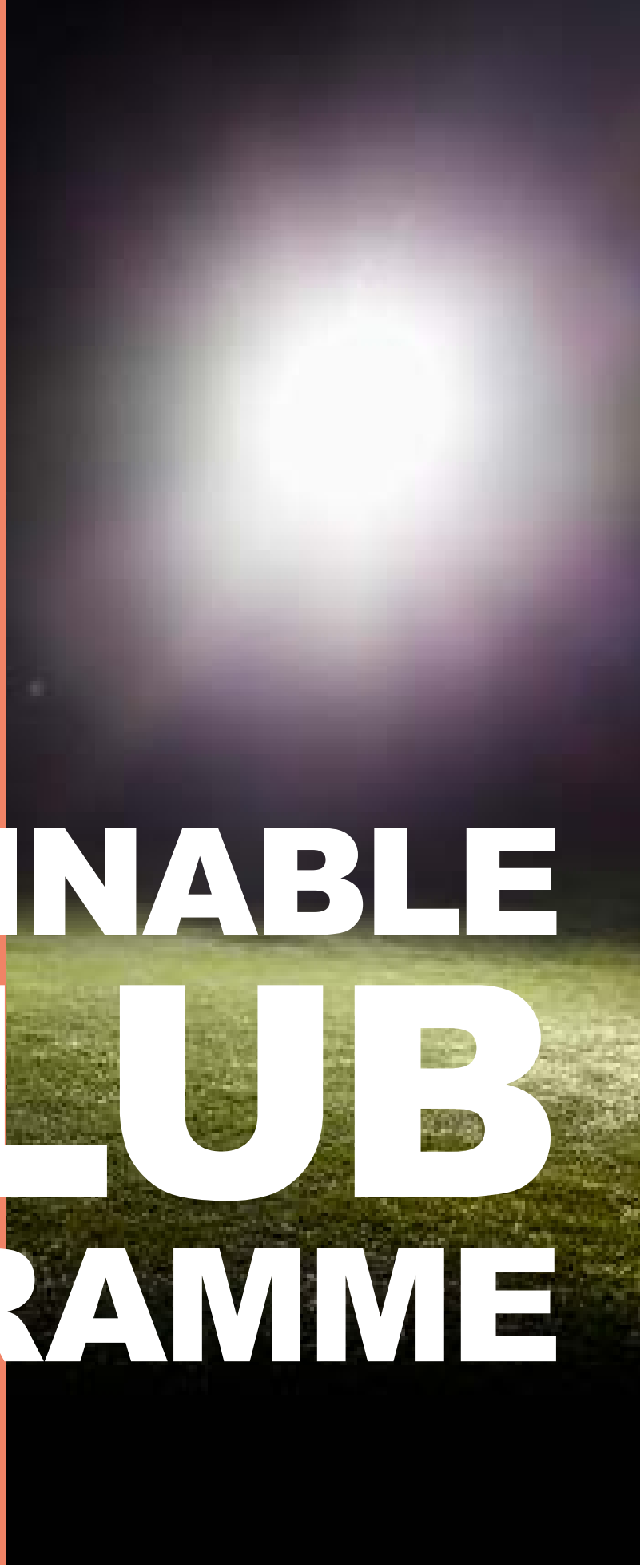
ENERGY



SUSTAINABLE CLUB PROGRAMME

Rialtas na hÉireann
Government of Ireland

The Sustainable Club Programme is an initiative of the Department of Climate, Energy and the Environment (DCEE).

WE'RE TAKING CLIMATE ACTION

HOW TO USE:
The Energy Toolkit

Energy

This Energy Toolkit contains advice on tracking our energy use and on making immediate savings through energy efficient behaviour. The 'Tips for an Efficient Clubhouse' sheet provides suggestions for immediate savings through simple low, medium and no-cost actions in your clubhouse.

The Energy Toolkit also includes information on a range of medium to long-term energy-saving and clean energy projects, from clubhouse insulation through heat pumps to solar PV generation and LED floodlight upgrades.

The Energy Toolkit is designed for clubs who are interested in learning about energy savings opportunities or are at the early stages of planning energy actions.

Clubs who have already carried out an energy audit and who have identified priority energy projects should contact a qualified independent professional for advice.

The Green Club Water Toolkit contains the following guidance sheets and resources:

ASSESS	Understanding Your Club's Energy Use.
IDENTIFY	Tips for an Energy Efficient Club House.
	Introduction to SEAI Community Energy Programmes.
	LED Floodlighting Upgrade FAQs & Checklist.
	Solar PV Infosheet & Checklist.
	Heat Pumps for Sports Clubs.
	Electric Vehicle (EV) Charge Points in your Club.
ACT	An Energy Action Plan.

TOP TIPS

Clubs interested in energy awareness and action in their club and community can join a Sustainable Energy Community. See the 'SEAI Community Energy Programmes' info sheet for details.

ASSESS:
Understanding your Club's Energy Use

Energy

The first step for a club looking to make energy savings is to understand current usage. This will allow your club to establish a usage baseline, to identify opportunities for savings and to notice any unexpected or unnecessary energy use throughout the year.

Understanding your bills

A better understanding of your energy bills can help your club manage your energy use more efficiently and can also help you identify opportunities for cost savings. Your electricity bill in particular includes significant information and charges that can affect how and what your clubs pays. Some key things to look out for on your bill are:

TARIFF

- Ensure your club is on the right tariff/price plan. There may be other tariffs or price plans that are more suitable to your club's usage.
- Check when your contract is next up for renewal and find out what other tariffs your supplier and other suppliers offer
- The more information you have on your club's current energy usage the easier it will be to find a tariff that suits your club.

READING TYPE – GAS & ELECTRICITY

Your bill can be:

- Estimated by a supplier ('E').
- Based on an actual reading taken by a technician ('A'), or
- Based on a reading provided by you, the customer ('C').
- Check your bill to establish if your readings are E, A or C. If your bills have been estimated for a considerable period, contact your energy provider to register a customer reading or to get a technician reading to ensure your club is being correctly billed.

MAXIMUM IMPORT CAPACITY (MIC) - ELECTRICITY

- The MIC on your electricity bill is the maximum electrical demand you can place on the network system.
- There is a charge associated with the MIC. If the MIC is set too high, your club might be paying more than necessary in each electricity bill.
- However, if your club's electricity usage ever exceeds the MIC, you could face a substantial excess capacity charge.
- If your current MIC doesn't reflect your club's electricity usage, contact your energy provider to have it adjusted.
- Talk to your Sustainable Energy Community(SEC) mentor or to an energy expert for advice and support.

Many energy providers publish handy guides to understanding their bills:

https://www.cru.ie/home/customer-care/energy/about-my-bill/
https://www.electricireland.ie/business/help/billing/understanding-your-electric-ireland-electricity-bill
https://www.sseairtricity.com/ie/business/help-centre/understanding-your-bill/
https://www.energia.ie/business/customer-service/understanding-your-electricity-bill
https://www.bordgaisenergy.ie/business/our-tariffs

ASSESS:
Understanding your Club's Energy Use

Energy

Monitoring your energy use

Keeping regular track of your energy use and bills will help you understand your club's baseline use and to identify opportunities for savings and/or unusual or unexpected energy use.

TRACK YOUR BILLS

- Keep a folder of all your club's energy bills (in paper or digital format).
- Use the bill tracker templates at the end of this document to record usage and cost from each bill and store these along with your bills in your club's energy folder.

TAKING ELECTRICITY & GAS METER READINGS

- Recording electricity and gas meter readings will help your club identify what your major electricity users are and when the bulk of electricity and gas is used so that your club can prioritise energy-saving actions.
- Use the meter reading templates at the end of this document.
- If your energy bill is estimated, taking your own meter readings will show if your club is being charged correctly or not.
- Regular meter readings – e.g., monthly, at roughly the same time each month – will allow you to establish a baseline of expected usage and will show spikes or unexpected patterns in usage. E.g., from regular meter readings you will be able to calculate your average daily usage, which will allow your club to respond if you notice any unexplained increase in this daily usage.
- If you think there is unnecessary or unexpected usage, consider taking more frequent readings over a shorter period of time – e.g., in the evening and again in the morning if you suspect that there is unnecessary usage (e.g., heating or lighting left on) at night when the club is closed.
- If your club is interested in the energy usage of any particular area, activity or device – e.g., heating or lighting – consider taking a number of readings over a short period of time when that area or equipment is the main energy user in the club.

TOP TIPS

Check if your meter has a meter multiplier. This can sometimes be the case for clubs with high usage or a higher Maximum Import Capacity (MIC). If you have a meter multiplier in your club, it means that the units of usage on your meter should be multiplied by your multiplier factor to get your electricity usage in kilowatt hours (kWh). Contact your electricity provider if you aren't sure if your meter has a multiplier or if you have any queries on your meter multiplier.

ASSESS:
Understanding your Club's Energy Use

Energy

Monitoring your energy use

Keeping regular track of your energy use and bills will help you understand your club's baseline use and to identify opportunities for savings and/or unusual or unexpected energy use.

MONITORING OIL USAGE

- Use the bill tracker templates at the end of this document to record your oil deliveries. This can help you monitor your usage and spend as well as gain an insight into how muchoil you are using in the period between deliveries.
- Consider monitoring your own usage by dipping your tanks regularly, e.g. with a stick or piece of timber, including before and after oil deliveries, to record changes in fuel levels. (Wait an hour before dipping after delivery). You will need to know your tank dimensions to calculate your usage from your dipping levels. Inexpensive fuel tank gauges are also widely available to buy.
- If your oil is used for machinery (e.g., tractors) as well as for generators, consider timing your monitoring to estimate the percentage of fuel used for generators. Recording your lighting and generator hours and comparing these to oil use records will also give the club a clearer picture of oil use
- A sudden increase in your oil consumption might indicate a leak, that equipment or heating has been left running, that your boiler requires servicing or that there has been a theft of oil.
- See the 'Prevent & Protect' infosheet in the Water Toolkit for guidance on the safe and responsible storage of oil.

EMISSIONS CALCULATOR

- If your club Green Team is interested in estimating your greenhouse gas emissions from energy use, consider using the table below.
- Multiply the amount of energy (kWh) or fuel (litre or kg) your club uses in a year by the appropriate conversion factor to estimate your club's greenhouse gas emissions in kilogrammes (kgCO2e).
- Ensure that your units of measurement are the same as those in the table below.
- For example, using 1000 litres of diesel, which has a conversion factor of 2.55784, will result in greenhouse gas emissions of 1000 x 2.55784 = 2557.84 kgCO2e (or 2.557tonnes CO2e).
- Emissions conversion factors are updated each year – check https://www.seai.ie/data-and-insights/seai-statistics/conversion-factors/ or speak to an energy expert for updates.

Fuel Type	Unit	Conversion Factor
Grid Electricity	Kwh	0.345
Natural Gas	Kwh	0.2047
Diesel	Litres	2.55784
Petrol	Litres	2.16185
Lpg	Litres	1.55709
Gas oil	Litres	2.75857

ASSESS:
Bill Tracker - Electricity

Energy

Fill in the table from your energy bills

MRPN: _____ **Year:** _____

Billing period start	Billing period end	kWh	Reading Type (e.g. estimated, customer)	Bill cost	Notes
TOTAL:			**TOTAL COST:**		

ASSESS:
Bill Tracker - Natural Gas

Energy

Fill in the table from your energy bills

GRPN: _____ **Year:** _____

Billing period start	Billing period end	kWh	Reading Type (e.g. estimated, customer)	Bill cost	Notes
TOTAL:			**TOTAL COST:**		

ASSESS:
Bill Tracker - Diesel

Energy

Fill in the table from your energy bills

Year: _____

TOP TIPS

Consider monitoring your own usage by dipping your tanks regularly, e.g. with a stick or piece of timber, including before and after oil deliveries, to record changes in fuel levels.

Delivery date	Litres	Bill cost	Notes
TOTAL:			

ASSESS:
Bill Tracker - Oil

Energy

Fill in the table from your energy bills

Year: _____

TOP TIPS

Consider monitoring your own usage by dipping your tanks regularly, e.g. with a stick or piece of timber, including before and after oil deliveries, to record changes in fuel levels.

Delivery date	Litres	Bill cost	Notes
TOTAL:			

ASSESS:
Bill Tracker - Electricity

Energy

Fill in the table from your energy bills

MPRN: _____

Date	Time	Meter Reading	Usage Single Last Reading
TOTAL:			

ASSESS:
Bill Tracker - Gas

Energy

Fill in the table from your energy bills

GPRN: _____

Date	Time	Meter Reading	Usage Single Last Reading
TOTAL:			

ASSESS:
Self-Assessment Check-list for Clubs

Energy

The tips and tables in the 'Understand your Energy Use' Resource in the Green Club Energy Toolkit help you to gather the information needed to complete this Energy Self-Assessment.

We have calculated our total energy costs and use from our energy bills Yes ☐ No ☐

Energy data from latest available 12-month period

Date from:_____ Date to:_____

Electricity (mains)	Usage (kWh)	Cost (€)
☐ Yes ☐ No		
Gas	**Usage (kWh)**	**Cost (€)**
☐ Yes ☐ No		
Diesel	**Usage (litre)**	**Cost (€)**
☐ Yes ☐ No		
Oil (Other)	**Usage (litre)**	**Cost (€)**
☐ Yes ☐ No		

TOP TIPS

Clubs with an annual spend on electricity and heating of more than €10,000 may be eligible for a €2000 voucher towards the cost of a professional energy audit.

See https://www.seai.ie/business-andpublic-sector/small-and-mediumbusiness/ supports/energy-audits/ for more details.

Please note that VAT costs aren't covered by this voucher

WE HAVE USED OUR SMART METER OR TAKEN TIMED READINGS FROM OUR METER TO:

- Identify our major energy users (e.g., water heating, space heating, floodlighting, internal lighting)
- Calculate our day time usage and our night time usage
- Ensure that lighting, heating and equipment isn't being left on when not needed

YES ☐ NO ☐

ASSESS:
Self-Assessment Check-list for Clubs

Energy

TOP TIPS

Your club may not need a professional energy audit if:

- your energy spend is low, or you have the internal expertise within your club membership to carry out a more detailed self assessment, or you belong to an SEC

We have the following in our club:

Internal Lighting	☐	LED	☐	Non-Led	☐	n/a	
External Lighting	☐	LED	☐	Non-Led	☐	n/a	
Water Heating	☐	Gas	☐	Electric	☐	Other	☐
Space Heating	☐	Gas	☐	Non-Led	☐	n/a	
Floodlighting	☐	LED	☐	Non-Led	☐	n/a	
Solar PV	☐	Yes	☐	No			
Solar Thermal	☐	Yes	☐	No			
Heat Pump	☐	Yes	☐	No			
EV Car Charging	☐	Yes	☐	No			

Energy efficiency checklist:

(For clubs who have heating) We have insulated our clubhouse															
walls	☐	Yes	☐	No	☐	n/a	**attic/roof**	☐	Yes	☐	No	☐	n/a	**floors**	☐	Yes	☐	No	☐	n/a
We have insulated our water tank	☐	Yes	☐	No	☐	n/a														
We control energy use by:																				
conducting spot checks	☐	Yes	☐	No			using timers & sensors on interior and exterior lighting	☐	Yes	☐	No									
using timers for space and/or water heating	☐	Yes	☐	No	☐	n/a														
Our interiors and exterior lighting is LED	☐	Yes	☐	No	☐	n/a														

For clubs considering energy projects:

WE HAVE RECORDED THE FOLLOWING ADDITIONAL INFORMATION:

We have 3-phase electricity supplied to our club *Important information for clubs considering, e.g., EV charging or moving away from diesel generators as part of a floodlight upgrade*	☐	Yes	☐	No	☐ n/a
We know our Maximum Import Capacity (MIC) *This information is on your electricity bill. See 'Understanding your Club's Energy Use' in the Green Club Energy Toolkit for more on the relevance of the MIC*	☐	Yes	☐	No	☐ n/a
The power of our diesel generator is kVA	☐	Yes	☐	No	☐ n/a
The peak power capability of our solar PV array is KWp	☐	Yes	☐	No	☐ n/a

IDENTIFY:
An Energy Efficient Clubhouse

Energy

Your club can make quick and easy energy savings by taking simple actions around the clubhouse and ground. Through a mixture of behavioural changes, low-cost actions and building upgrades, your club can reduce energy use, save money on bills, and make your club buildings more comfortable for club users.

This infosheet recommends three main action areas for your club to reduce energy use and to save money on energy bills: **Energy Efficient Behaviour, Insulation and Lighting.**

Energy efficiency behaviour

There may be immediate savings that your club can make by introducing small changes to how you manage your energy.

- Establishing a baseline for your club's energy use to help you identify any unexpected, unusual or unnecessary energy use. See the 'Understand Your Usage' infosheet for more advice.
- Identify your club's major energy users – if your club's energy use is mainly on lighting and heating, small changes to timings and temperature settings could result in significant savings.
- Undertake spot checks to identify where heating, lighting and equipment is being left on unnecessarily.
- Consider reducing your heating temperature by 1°C – this could save you up to 10% on your heating.
- Block off draughts and avoid leaving windows and doors open when heating is in use.
- Regularly service and check boilers and generators to maintain efficiency. Clean filters in fridges and ventilation to limit unnecessary energy use.
- Plan your water heating to ensure that you are not wasting energy and money on hot water that isn't being used.
- Communicate your energy efficient practices to club members and to outside club users.
- Turn off for the holidays – check your bills and meter or conduct spot checks at times when the club isn't in use to make sure lighting, heating or equipment isn't left running.
- If your club is a very high energy user, consider installing an energy management system to measure and manage your energy use. Ask your SEAI mentor or an energy expert for advice.

Insulation

Save energy and money and make your clubhouse more comfortable by reducing draughts and insulating where possible.

- Check the seals on doors and windows to reduce draughts.
- Insulate your attic or roof space - up to 30% of heat can be lost through your clubhouse roof.
- Consider wall and floor insulation – up to 30% of heat can be lost through walls and 10% through floors.
- Insulating water tanks as well as interior and exterior water pipes will save on water heating costs and can help protect pipes from freezing in winter.
- Double or triple glazed windows will greatly reduce heat loss
- Having a well-insulated clubhouse can open up other energy saving options, like heat pumps, for your club. See the heat pump infosheet for more information.

For more information on insulation see: https://www.seai.ie/home-energy/home-upgrades/guide-to-upgrades/

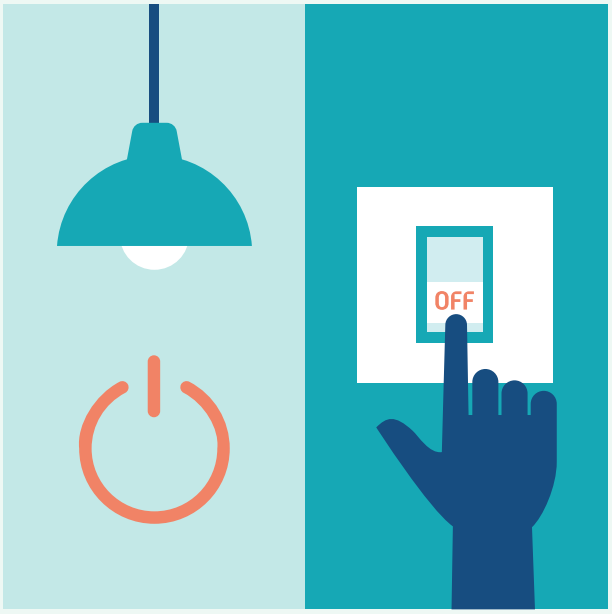
IDENTIFY:
An Energy Efficient Clubhouse

Energy

Lighting

Clubhouse lighting can account for up to 30% of clubhouse energy bills and many clubs can make savings by managing lighting use and investing in lighting upgrades.

- Dust off lights at least once a year to enhance lighting performance and maximise natural light use when possible by having blinds and curtains open in meeting rooms during daylight hours.
- Conduct spot checks to make sure lighting isn't turned on when it's not needed.
- Put posters and stickers at light switches to remind club members and external club users to turn lighting off after use.
- When replacing bulbs, choose LED alternatives where available. This will lead to immediate energy savings.



- Consider upgrading bulbs and fixtures to LED – survey the bulbs in your clubhouse and if the majority are non-LED, consider a full upgrade. Talk to your SEC mentor or to a lighting professional for advice.
- Consider the use of timers and sensors on lighting – timers are relatively low cost and result in immediate usage savings while sensors can reduce lighting usage by 30%.
- Manage your external lighting, e.g. over doors and entrances, in carparks and on walkways, to ensure it is only in use when needed (consider the use of timers or sensors) and that lighting levels are appropriate for safe use as well as for the environment. Managing use of external lighting responsibly will also reduce potential harmful impacts on local wildlife.

See:
https://www.seai.ie/publications/SEAI-Energy-Efficient-LED-Lighting-Guide.pdf
for more advice and guidance.

IDENTIFY:
SEAI Community Energy Programmes

Energy

Sustainable Energy Communities (SECs)

WHAT ARE SUSTAINABLE ENERGY COMMUNITIES?

- Sustainable Energy Communities (SECs) are composed of groups in the community who come together, supported by the Sustainable Energy Authority of Ireland (SEAI), to improve how energy is used in and for the benefit of their community.
- An SEC can be made up of different groupings within a community – e.g., householders, businesses, community groups, sports clubs.
- SECs can also be composed of groups from within a particular sector, as with a recently-established SEC for farmers in West Kerry and an SEC for GAA clubs in Mayo.

See https://www.seai.ie/community-energy/sustainable-energy-communities/ for more information.

WHAT DO SUSTAINABLE ENERGY COMMUNITIES DO?

- SECs look at how energy is currently being used and at how communities can manage energy in a sustainable, holistic way.
- SECs provide expert mentorship through the SEAI to support community groups in coming together to identify and plan towards community energy goals.
- The SEC pathway is designed around the three steps of Learn-Plan-Do and the common goals of SECs are:
  - To use less energy
  - To use clean energy
  - To use smart energy technology.

WHY SHOULD OUR CLUB JOIN AN SEC?

Clubs joining SECs will gain:

- Access to a regional and national networks of best energy practice.
- Access to an energy mentor to guide them and fellow SEC members through the programme steps and support their progress.
- Support in carrying out an energy master plan – a holistic, baseline review of the club and community's energy usage that will allow the SEC to plan its energy strategy.

By joining an SEC, the club will also have the opportunity to support its members and community in understanding their energy use and identifying opportunities for energy saving.

IDENTIFY:
SEAI Community Energy Programmes

Energy

HOW CAN WE JOIN AN SEC?

Sports clubs can:

1. Join an existing SEC. Check https://www.seai.ie/community-energy/sustainable-energy-communities/sec-map/for any existing SECs in your community.
2. Create a new SEC in your local area. Join with other local groups and individuals - ideally a mix of householders, business and community groups – and register your SEC with the SEAI https://www.seai.ie/community-energy/sustainable-energy-communities/community-network/sec-membership-registration/
3. Create a Sports Club SEC in your county. Sports clubs and grounds in a county or local area can come together to form a sports SEC. If you are looking at partnering with other clubs on an SEC, contact sec@seai.ie to register or visit https://www.seai.ie/community-energy/sustainable-energy-communities/community-network/sec-membership-registration/

Community Grants

WHO CAN APPLY FOR SEAI COMMUNITY GRANTS?

- Clubs that have assessed their energy usage and drawn up an energy action plan and/or a register of opportunities – either through their SEC or independently – can apply for funding for certain energy projects as part of a community application through the SEAI Community Grant scheme. See https://www.seai.ie/grants/community-grants/overview/
- Grants are awarded on a community basis – i.e., not to individual applicants but to multiple organisations within a community that have partnered on an application

HOW CAN OUR CLUB APPLY FOR A COMMUNITY GRANT?

- Contact a project coordinator: https://www.seai.ie/grants/community-grants/project-coordinator/ Your project coordinator will advise you on your club's project and can build the community partnership for the grant application.
- Some local authorities can also act as SEAI Community Grant project coordinators. Your local authority point of contact can advise you on whether your local authority is currently involved in SEAI Community Grant coordination.

TOP TIPS

Applications to Community Grant Schemes are stronger when there are a diverse range of groups involved. Consider approaching local businesses, sponsors and other community groups in the area who are interested in energy projects about partnering in your application. Talk to your project coordinator for advice and guidance on this. https://www.seai.ie/grants/community-grants/project-coordinator/

IDENTIFY:

LED Floodlighting Upgrade FAQs & Checklist

Energy

Upgrading your floodlights to LED can reduce your club's energy use, save money on lighting maintenance and improve the quality of lighting on your pitches. The Green Club Floodlighting FAQs and Green Club LED Floodlighting Planning Checklist are designed as an introduction to LED floodlighting upgrades for interested clubs. Seek professional advice before starting your planning of any energy project.

Why update to LED?

- LED floodlights use up to three times less energy than traditional metal halide or other high-energy bulbs and last four to five times longer.

Where should we start?

- Your first port of call when planning a major energy project in your club should be to talk to reputable energy consultant or energy expert.
- Gather all the information you can on your club's energy use from the past number of years – calculate the running time of your lights and the energy (e.g., electricity or diesel) and maintenance (e.g., lights and generator) costs. This will help you calculate the payback period for your LED upgrade.
- Clubs who are members of a Sustainable Energy Community (SEC) can engage with their energy mentor for support in understanding their energy data – see the Green Club SEAI Community Programmes pages for more details.

What lighting levels do we need?

- Different recommendations for lighting (Lux) levels exist across different codes. Your club should be to talk to reputable energy consultant or energy expert to understand the lighting levels required for your club's facilities.

Should we run our LED lights off our generator or off the mains?

- It is far less harmful to the environment and often more cost efficient to run your floodlights off mains electricity. Talk to your energy consultant about your options and check with the ESB about your power capacity to run floodlights off mains electricity.

How much will an LED upgrade of our floodlights cost?

- Costs will vary from club to club but can include planning, civil works, pole installation, wiring and costs for installation and commissioning of the new lights. Work with your energy consultant to calculate the full costs.

Is there funding for LED floodlighting?

- If you are upgrading existing floodlights to LED, there can be funding available from the SEAI through the Community Energy Grant programme https://www.seai.ie/grants/community-grants/. LED upgrades can also be included in Sports Capital Programme, LEADER, and other community and facility development fund applications.

IDENTIFY:

LED Floodlighting Upgrade FAQs & Checklist

Energy

Will we need planning permission?

- If your club is upgrading existing floodlights to LED you won't need planning permission, unless there are significant physical changes to your floodlighting installation as part of your upgrade – e.g., an increase in the height of lighting poles. If in doubt, check it out.
- If your club is installing new floodlights, planning permission will be required.

What else do we need to know?

Check your MIC

If you are planning to run your lights off the mains, talk to your electricity provider to ensure that the Maximum Import Capacity (MIC) for your club is appropriate. An unnecessarily high MIC for your club use will result in higher monthly bills while if your MIC is too low you risk a heavy charge if your electricity use ever goes above the MIC defined in your electricity contract.

Ensure that all documentation is in order

Ensure all works are carried out by specialist and experienced contractors, that you have examined their previous work, that all insurance and paperwork is in place and that relvenant individual in your sports association are aware of the work.

Be aware of your impact

Lighting of your pitches, walkways, clubhouse, car parks and grounds can have an impact on your neighbours and on biodiversity – planning your lighting use and timing carefully and thoughtfully can save money for your club and minimise disruption to your local community and to local wildlife. https://www.darksky.ie/

Plan ahead for safety

If your club hosts evening matches, you should make provisions to have emergency lighting systems installed to ensure that spectators can leave the ground safely in the event of a mains power or generator failure.

IDENTIFY:

Green LED Floodlighting Planning Checklist

Energy

This is a non-exhaustive list designed as a guide for clubs in the early stages of considering a floodlighting upgrade or installation

For clubs planning an LED floodlighting upgrade or installation:

- [ ] We know the lighting (lux) level we want for our pitch.
- [ ] We have sought independent advice – e.g., from an energy consultant,
- [ ] Sustainable Energy Community (SEC) mentor or an energy expert in the club or community – as a first step in our planning.
- [ ] We have calculated the full cost of the project, including civil works, pole installation, wiring and installation and commissioning of the new lights.
- [ ] We have calculated the ongoing costs and savings, from energy use, maintenance and carbon emissions.
- [ ] We have explored funding options, e.g., through the SEAI Community Energy Grants programme, community and facility development grants (e.g., Sports Capital or LEADER funding) or as identified by our energy consultant.

For clubs currently running lights off diesel generators:

- [ ] We have carried out a financial and environmental cost-benefit analysis of powering our new lights off mains electricity instead.

For clubs planning to run their LED floodlights off mains electricity:

- [ ] We have confirmed with our energy consultant, electricity provider and/or ESB that we have the correct electricity supply to power our new floodlights.
- [ ] We have contacted our electricity provider to inform them of our plans and to ensure our Maximum Import Capacity (MIC), bill charges and contract conditions are appropriately set to our club circumstances and our expected usage.

For clubs planning a new LED floodlighting installation project:

- [ ] We have calculated the additional costs to our annual energy bills.
- [ ] We are aware of the requirement to apply for planning permission for our new floodlights.
- [ ] We are satisfied that our pitch can withstand the increased activity that new floodlighting will bring.

IDENTIFY:
Solar PV Infosheet & Checklist

Energy

This is an introduction to solar PV for Sports Clubs. See: https://www.seai.ie/publications/SEAI-Solar-PV-Guide-For-Business.pdf for more information and advice.

What is solar PV?

The photovoltaic (PV) effect occurs when light from the sun is converted to electricity. Solar PV panels can be installed on the roof of buildings like club houses to capture the light from the sun and convert it into the electricity that is used to power a building's activities.

Is solar PV a good option for my club?

Having solar can be a great option for generating green electricity and saving money on electricity. However, how suitable solar PV is for your club depends on two main factors

1. **Your club's current energy usage patterns.**
2. **The orientation of your roof space.**

Why do our energy usage patterns matter?

Solar PV works best where buildings have a steady daytime electricity demand. Solar PV generates electricity during sunlight hours and will generate approximately five times more electricity on a summer day (May/June) than on a winter day (Dec/Jan).

This suits clubs that have activity in their building and grounds during the day rather than clubs where activities are mostly after dark.

Our club doesn't have a huge amount of daytime activity but we are still interested in solar PV. Are there options for us?

- **Battery storage** allows users to store or divert electricity generated during the day and then utilise it during the evenings when needed. However, this can add considerably to the cost of installation and would need careful analysis in advance.
- **A hot water immersion diverter** can be used to divert electricity to an electric immersion in your water tank to heat hot water. This might suit a club where showers are often in use in the evening.
- Talk to your energy consultant, Sustainable Energy Community mentor or installer about the feasibility and value for your club of these options.

TOP TIPS

To make sure Solar PV is the right investment for your club, establish a good understanding of your current energy use by:

- Collecting and analysing your energy bills
- Taking meter readings in the morning and late afternoon/early evening (e.g., 6pm) to see how much your building is using during the daylight hours.
- Considering the installation of a simple electricity monitor. This is a very simple way to get a real-life profile of your electricity demand.

IDENTIFY:
Solar PV Infosheet & Checklist

Energy

No planning permission is required for most rooftop solar installations on the island of Ireland.

Why does the orientation of our roof space matter?

The best rooftops for maximising electricity generation are those that are:

- south-facing
- in good condition, and
- with minimal shading from trees or adjacent structures.

The optimum tilt angle of solar PV panels in Ireland for year-round solar gain is 35–40 degrees.

Our club roof space isn't suitable for solar PV panels. Are there other options?

Ground-mounted solar PV panels can be an option for clubs that have sufficient ground space.

Will we need planning permission for a solar PV installation?

No planning permission is required for most rooftop solar installations on the island of Ireland or for many smaller ground installations. There are some zones where restrictions do apply. Check with your installer, contact your local planning office or, see https://www.gov.ie/en/publication/00203-solar-planning-exemptions/

Is there grant funding available for solar PV installations?

There is a grant scheme for club house solar installations: https://www.seai.ie/business-and-public-sector/business-grants-and-supports/commercial-solar-pv/

Can we earn money from exporting surplus electricity from our solar PV panels?

Clubs can benefit from a Clean Export Guarantee (CEG) tariff or a Clean Export Premium (CEP) tariff. Ask your Sustainable Energy Community (SEC) mentor, contact your energy supplier or visit https://www.gov.ie/en/publication/b1fbe-micro-generation/ for more details.

Our club is interested in solar panels. What should we do next?

- Gather as much information as possible – e.g., bills, meter readings, clubhouse activities records –on your club energy use and your clubhouse activity.
- Seek professional advice from an energy consultant, an energy expert in your club or community or your SEC mentor to assess the costs, benefits and suitability of solar PV for your club.
- Identify a specialist contractor. A list of SEAI-registered Solar PV companies is available at https://www.seai.ie/grants/home-energy-grants/solar-electricity-grant/solar-pv-installers-and-c/ Ensure that you have examined their previous work and that all insurance and paperwork is in place.
- Inform the ESB of any solar PV installation in your club.
- See https://www.seai.ie/publications/SEAI-Solar-PV-Guide-For-Business.pdf for more details.

IDENTIFY:
Green Club Solar PV Checklist

Energy

This is a non-exhaustive list designed as a guide for clubs in the early stages of considering a solar PV installation

- [ ] **We have calculated our annual electricity usage across the 12-months of the year.**
  Around 75% of the annual energy from a solar PV system is produced from May to September.

We have identified which of the following applies more to our club:

- [ ] 1. We have regular, steady daytime electricity usage.
  Solar PV works best where clubs have a steady daytime electricity demand.
- [ ] 2. We use most of our electricity in the evenings and at weekends.
  Solar PV may be an option if battery storage or load shifting – e.g., to water heating or electric vehicle charging – is included in the system design.

Our clubhouse roof is in good condition:

- [ ] The inclination and orientation of our roof is suitable for solar PV.
  Optimal orientation for Solar PV is South, South-west or South-east. Optimal tilt angle of solar PV panels is 35-40 degrees.
- [ ] Our roof is not shaded by trees or other buildings/structures.
- [ ] We have checked out the planning requirements for our planned system.
- [ ] We have checked out the electricity grid requirements for our system.
- [ ] We have sought independent advice – e.g., from an energy consultant, Sustainable Energy Community (SEC) mentor or an energy expert in the club or community – as a first step in our planning.
- [ ] Our system will be installed by a competent contractor.
- [ ] We have explored funding options through the SEAI Non-Domestic Microgen Grant or community and facility development grants.
- [ ] We have contacted our energy supplier or talked to our SEC mentor about benefitting from electricity export tariffs.
- [ ] We will inform the ESB or Northern Ireland Energy if we go ahead with installation.

IDENTIFY:
Heat Pumps for Sports Clubs

Energy

What are heat pumps and what kind of energy do they use?

A heat pump is an electrical device that captures heat from outside and moves it into a building. Heat pumps can heat both space and water.

Heat pumps use electricity to capture heat from outside the building but the heat energy delivered to a building is much more than the electrical energy used to power the heat pump. Typically, a heat pump will produce 3 to 4 units of heat for every unit of electricity consumed.

Heat pump systems should only be considered for clubs that have excellent insulation and airtightness. Talk to an energy expert if your are considering a heat pump for your clubhouse.

What type of heat pumps are available?

AIR SOURCE

- Extracts heat from external air
- The most common type of system and generally cheaper and easier to install than other options.
- Less efficient than other heat pumps in colder weather.

GROUND SOURCE

- Extracts heat from the ground through vertical or horizontal pipework.
- Particularly suitable for new club building developments and/or for clubs with sufficient available ground around their building.
- High levels of efficiency all year round.

WATER SOURCE

- Extracts water from open water (e.g., lakes, rivers, streams) through collector pipework.
- Potentially suitable for clubs adjacent to water bodies.
- High levels of efficiency all year round.

Why might a heat pump be a good option for our club buildings?

- In well-insulated buildings, heat pumps are a highly efficient alternative to oil, gas, solid fuels and direct electrical heating systems.
- Installing an appropriately designed heat pump system can result in significant savings in energy, operating costs and carbon emissions.
- A heat pump needs to be appropriately designed and this can be complex. Ensure your club gets independent professional advice.

SEAI Support Scheme

- Clubs may be eligible for funding of their heat pump system installation under a support scheme for renewable heat. The current scheme includes up to 30% funding of installation cost for heat pumps. See https://www.seai.ie/business-and-public-sector/business-grants-and-supports/support-scheme-renewable-heat for more details

IDENTIFY:
Heat Pumps for Sports Clubs

Energy

What is building fabric and why is it important for heat pump installation?

'Building Fabric' refers to the structure and materials of a building – e.g., walls, floors, roof, windows and doors.

Improving the building fabric insulation and airtightness (e.g., of windows, doors, seals, ventilation) to minimise heat loss from your building will allow a heat pump system to operate more efficiently. Before considering a heat pump system, your club should look at the airtightness and insulation of your building. A well-insulated building will have lower running costs and better heating efficiency. Talk to an independent energy professional for advice.

We're considering getting a heat pump for our club. What do we need to think about?

AS PART OF A NEW BUILD:

- A new building will be built to very high insulation and airtightness standards, making a heat pump system a worthwhile energy- and money-saving option for your club.
- A calculation of the heating requirements of your new club building will be needed to design the system efficiently – get independent professional advice to check that a heat pump is a good option for your club and to ensure you get the most appropriate heat pump system for your club needs.

FOR AN EXISTING CLUB BUILDING:

- Improve your building insulation and airtightness (e.g., windows, doors, seals, ventilation) first – this will allow your heat pump to operate more efficiently.
- Heat pumps work better in buildings that are frequently in use – they are less efficient where heating is needed only for short periods.
- Ensure you get an independent professional assessment as to whether a heat pump is a good option for your club building.

For more information on heat pumps see
https://www.seai.ie/publications/Homeowners-Guide-To-Heat-Pump-Systems.pdf/

IDENTIFY:

Electric Vehicles (EV) Charge Points in Your Club

Energy

Questions to consider when planning to install an electric vehicle (EV) charger in your club

- **Who will the main users of your club's EV charge point be?**
- **What is the existing electrical supply and system in your club?**
- **What site works will be involved?**

If you club is planning an EV charger installation, ensure you contact an independent professional for advice before proceeding with your installation.

Who will the main users of your club's EV charge point be?

1. CLUB USERS, MEMBERS OF STAFF ON-SITE FOR A WHOLE DAY

If your primary users can charge their vehicles for six hours or more, a home charger or low-power (7kW) commercial charger could be an option for your club.

2. CLUB PLAYERS, MEMBERS, SUPPORTERS AND VISITORS WHO WILL BE ON-SITE FOR A COUPLE OF HOURS AT MOST.

A commercial 11 to 22kW charger will provide a meaningful charge or top-up for club members who are on-site for training, a match or a club meeting or event.

3. MEMBERS OF THE WIDER COMMUNITY WHO WILL USE THE CLUB EV CHARGEPOINT AS A 'DESTINATION CHARGER' FOR TWO HOURS OR MORE.

A commercial 11 to 22kW charger will provide a meaningful charge or top-up to the user.

What is the existing electrical supply and system in your club?

Establish if you have single-phase or 3-phase power: For AC charging of 11kW or more, 3-phase power is required. Contact an independent professional for advice.

Check what your Maximum Import Capacity(MIC) is. You will find your club's MIC on your electricity bill. The MIC is the maximum electrical demand you can place on the network system. If you club exceeds its MIC, you can incur significant charges. Talk to your energy provider and to an independent professional before installing an EV charger to ensure that your MIC is suitable for your requirements. You will also need to consider what your site's other electrical demands, e.g., floodlighting, might be when the EV point is in use.

What site works will be involved?

- Installation of the EV Charge Point is likely to involve other works such as cabling and ground works.
- Keeping the location of the EV charging parking space(s) close to your electrical distribution board will reduce cabling costs.
- Mounting charge points on a wall may be cheaper than having to install a foundation base.
- If you have any larger construction works planned, consider including the charge point installation as part of these to reduce your costs.
- Ensure that dedicated EV charging parking spaces are clearly marked out.

TYPES OF EV CHARGE POINTS:

Charging Connection	kW	Charge Duration
AC Single Phase	3-7 kW	6-8 hrs to full charge
AC 3-Phase	22 kW	3-6 hrs to full charge
Fast AC or DC *	43kW AC or 50+kW	30-40 mins to 80% capacity

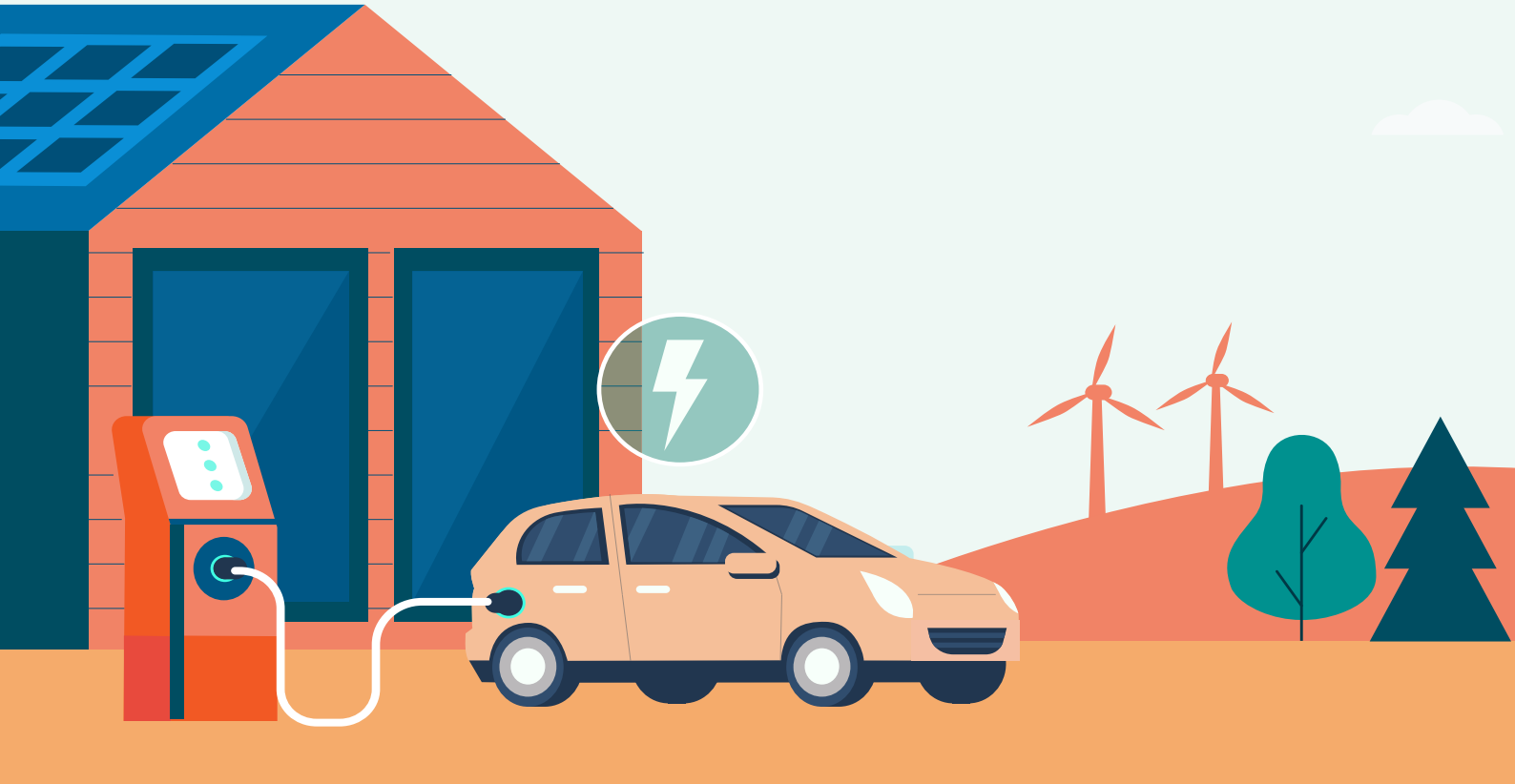
*Due to the high power requirements, fast EV charging will be unsuitable for most clubs and grounds.

TOP TIPS

Each installation will have different requirements so it is important to complete a site survey with a provider or independent professional before purchasing equipment or starting an installation.

Other considerations:

- **Number of outlets:** EV Charge Points can be supplied with one or two outlets. Choosing a two-outlet point may be more cost-effective in the long run. Plan your EV charging spaces and electricity management accordingly.
- **Payment system:** Consider whether your club will implement a payment system for users of your charge points. This can be a source of revenue for clubs who install charge points as destination chargers. Talk to your EV charger provide about the different payment options and facilities and seek independent advice on what approach works best for your club.
- **Energy management:** An energy management system can help to control peaks in power demand, keeping the overall demand below the MIC level and thus avoiding penalties. Talk to your provider or independent professional for advice.
- **E-bike charging:** Investigate whether your charge point can include charging facilities for other e-vehicles, e.g., e-bikes, to support active travel to your club grounds.



ACT:
Energy Action Plan

Energy

This Energy Plan is intended for very early-stage planning for Green Teams interested in better understanding and managing energy use in their club.

Clubs embarking on energy management projects should seek expert auditing and action-planning advice from their Sustainable Energy Community mentor (26-counties only – see the 'SEAI Community Energy Programmes' infosheet) or from an independent professional.

Advice and guidance is also available from:

https://www.seai.ie/publications/Energy-Management-Guide-for-SMEs.pdf
https://www.seai.ie/publications/Energy-Management-Workbook-SMEs.pdf
https://www.seai.ie/publications/Energy-Management-Workbook-Example-SMEs.pdf

Club Name: _____ Date: _____

No.	Action Details	Person (s) Responsible	Targeted Completion Date
Understanding our club's energy use			

ACT:
Energy Action Plan *SAMPLE*

Energy

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https://www.seai.ie/publications/Energy-Management-Workbook-SMEs.pdf
https://www.seai.ie/publications/Energy-Management-Workbook-Example-SMEs.pdf

Club Name: _____ Date: _____

No.	Action Details	Person (s) Responsible	Targeted Completion Date
Understanding our club's energy use			
1	Set up an energy file in the club office with all the energy billing data (electricity, gas and oil) from the past two years. Update with each incoming bill.	T.O'N	January 2025
2	Take weekly readings of the electricity meter and gas meter record readings in the energy file.	C.H	From January 2025
3	Join the town Sustainable Energy Community.	T.O'N & C.H	February 2025

ACT:
Energy Action Plan

Energy

Club Name: _____ Date: _____

No.	Action Details	Person (s) Responsible	Targeted Completion Date
Quick win energy savings			
Exploring energy opportunities			

Completed by: _____

ACT:
Energy Action Plan *SAMPLE*

Energy

Club Name: _____ Date: _____

No.	Action Details	Person (s) Responsible	Targeted Completion Date
Quick win energy savings			
4	Put up posters and stickers at the lighting switches in changing rooms; install a sensor on the external lighting.	C.H	January 2025
5	Reduce the heating in the meeting rooms by 1oC to 2°C.	T.O'N	January 2025
6	Do up a schedule for energy spot checks (heating, lighting, equipment).	E.T	To run from 1 – 14 February 2025
Exploring energy opportunities			
7	Do a survey of clubhouse lighting to identify how many bulbs and fixtures are LED.	E.T & M Ní B	February 2025
8	Seek expert advice on solar panels for clubhouse; check out grant and funding opportunities	T.O'N	March 2025

Completed by: _____