Border Ice Rink Sustainability Project



Introduction

Built in 1964 by group of local farmers to enjoy their passion for curling, run as a Ltd Company until 2024.

Background:

- BIR Ltd reserves depleted on new roof (2021) and ice plant (2024).
- COVID Impact – older players retired
- Russia/Ukraine war impact on energy costs.
- BIR Trust takeover 1st August 2024 access to grants, reduced costs and VAT on energy.
- First year of the BIR Trust (1st Aug 2024 – 31st Jul 2025) showed a small surplus after 4 years of loss.
- Future sustainability relies on cheaper energy costs, green electricity production through solar panels/battery storage, and more efficient heating.

Membership

- Border Ice Rink unique to Borders covering a population of over 91,000 - closest nearest rink is at Murrayfield
- Curling available for all ages/sexes – we have players in their late 80’s and wheelchair users!
- Great interest still in skating for all ages public sessions up to 200 people attend.
- Great interest in ice hockey
- Increasing use of summer season (mid March – mid September) for roller skating, pickleball and other community sports events.
- Community hub using the Café which is open every day for members and the general public.

Membership support PLEDGES

- Suggested at the 2024 AGM and fully supported by members.
- Initial target of £10,000 by pledges of £50 per solar panel.
- Total of 180 members contributed.
- This was further boosted by Aviva Crowdfunder, effectively doubling the pledges contribution to £15,000.
- Major contributory factor to successful grant submissions, showing BIR membership 100% behind a sustainable future for the BIR.

Grant Support:

The CARES Growth Fund from Local Energy Scotland provided the major grant of £87,000 or 80% of the cost. This required Scottish Government ministerial approval, and we were extremely lucky to receive this.

The total grants obtained are as follows:

• CARES Growth Fund	£87,771
• SBC CLLD Fund	£12,000
• Abbey St Bathan	£5,000
• Joicey Trust	£2,000
• Solar Pledges/Crowdfunder	£15,000
• TOTAL	£121,771

Financial Case for Solar

- Ice Rinks use over 80% of their energy from October through to March when solar electricity production is at its lowest.
- Exporting green electricity to the National Grid from March to September (up to £6,000) can offset the winter electricity bills.
- The investment only makes sense if you can:
  - Obtain grants
  - Obtain a long-term loan (5 Years)
  - Lease the roof to a solar company

Border Ice Rink Solar Project

- We initially installed 200 panels in December 2025 with a further 40 in April 2026 with a maximum output of 120kwp.
- BIR solar installation produced 56,000kwh (233kwh per panel) this year.
- The new ice plant uses approximately 550kwh per day to run, accounting for over 100,000kwh of energy during the season.
- The energy saving in 2026 will be 37,288 compared with 2025.
- 100kwh of battery storage was installed in a shipping container adjacent to the building – avoids fire hazard.


CLEVELAND
CONTAINERS.


KATING


SKATING


SOLAX
POWER

Performance and feedback

- Sustainable future for the ice rink in protecting against future energy surges.
- BIR Members and the general public have been fully behind the project and have benefitted from the improvements – use of the facility has increased.
- Total electricity saving for 2026 is 37,288kwh compared with 2025.
- Battery storage set to charge over night during the off-peak rate, and discharge during the day.
- Total electricity exported to the grid from 16th March – 16th September is 56,000kwh
- Monitor electricity exported to grid and ensure best SEG tariff in future years.

PHASE 2 of Project

Installation of air source heating to replace the current gas boiler system was carried out in March 2026 with 80% funding by CARES (£35,500), followed by double glazing in August in August 2026:

- **Installation of air-to-air source heating for the large BIR Club Room - more efficient for heating a large area used infrequently.**
- **Installation of air source heating system for the remaining rooms/areas replacing existing radiators**
- **All of the heat pumps were mounted externally on the west side of the building.**
- **Double glazing of the Club Room and downstairs areas ensured heat saving.**


Vaillant
aroTHERM plus


Vaillant


DAIKIN
Skyair
R32


Disabled Refuge

Advice to Other Organisations

- Get your community involved at an early stage and ask them to provide financial support.
- Ensure you have a good technical understanding of the solar PV/battery storage requirement and how it fits your premises, by doing plenty of research and ensuring your electricity figures add up
- Prepare a detailed requirement statement.
- Go to as many companies as possible to get a good understanding of the cost involved. Don’t forget, these companies have to put a lot of time and effort into their quotes, and most of the time do not get a contract out of it.
- Make sure there are no hidden costs.
- Choose a mid-way quote for the grant submission.
- Once you have a grant offer, go back to the companies for a best and final quote ensuring they can meet your timescales.
- Always have some contingency funding in place.
- Keep your grant provider informed of progress/problems at all stages.