

Clare Local Development Company LEADER & Lahinch Seaworld & Leisure Centre

Renewable Energy Project

A Community-Led Transition to Sustainable Energy

220 t

CO₂ saved/yr

76%

thermal reduction

A3

energy rating



The Starting Point

A Community Asset Under Pressure



Built mid-20th century — Built in the mid-20th century as a dance hall, converted into an indoor leisure centre in 1996. In 2018, plans were developed for a major refurbishment and redevelopment project valued at over €3 million.



Oil-based heating system — high fossil fuel dependency, no gas alternative in the area



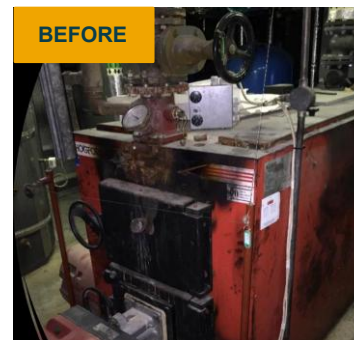
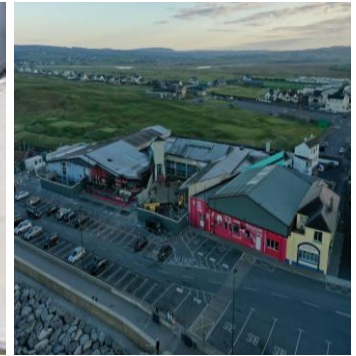
3,079m² building — poor insulation, little to no thermal fabric throughout



Rising energy costs — long-term financial viability at serious risk



20,000 catchment population — a critical community resource on west Clare coast



"This wasn't just an upgrade — it was about securing the long-term viability of a critical community asset."

Engagement and Development Process

From Audit to Action: How This Project Developed

01

Energy Audit

In 2019 Tipperary Energy Agency carried out a detailed energy audit identifying the scale of the problem and the renewable opportunity.

02

Promoter Engagement

Close engagement between CLDC & Joe Garrihy (GM) throughout. Commitment to renewables was central from day one — not an after thought. Very strong collaborate Community approach

03

Technical Design

TEA provided cost estimates. GSHP (15 boreholes × 150m) + 123kWp Solar PV with 30kWh battery storage designed and costed.

04

LEADER Application

Submitted under CLDC LEADER RDP 2014–2020. LEADER 50% . Additional support from philanthropic resources 50%

Key principle: evidence-based decision making + strong promoter engagement = project success

The Project: What Was Done

A Complete Renewable Energy Transition

Not a minor upgrade — a fundamental shift in how the facility is powered.

⚡ Ground Source Heat Pump

79kW · 2 Geothermal Heat Pumps

- 15 vertical boreholes × 150m depth
- Main pool, jacuzzi, steam room, sauna
- Domestic hot water + underfloor heating
- Fan coil units & cassettes throughout
- 2 biomass wood pellet boilers (backup)

☀️ Solar PV + Battery Storage

123kWp System · 30kWh Battery · 140 Panels

- 138,468 kWh generated on-site annually
- Covers 26% of all site electricity
- Smart LED lighting upgrade throughout
- Full BMS controls upgrade
- 17 VSD building services pump upgrades



Pool now heated renewably



Accessible, inclusive facility for all

Policy and LDS Alignment

Strategic Alignment at Every Level

This project is a direct local delivery mechanism for national and EU climate obligations.

EU & National

- EU Renewable Energy Directive
- Ireland Climate Action Plan 2024
- 80% renewable electricity target by 2030
- Renewable Heat Obligation Scheme
- Ireland's 51% emissions reduction target

LEADER LDS (Clare)

- Rural Infrastructure & Services
- Climate Action & Sustainability Theme
- Community Resilience Priority
- Social enterprise sustainability
- Energy transition for rural communities

Community Level

- Secures long-term viability of asset
- Social enterprise — profits reinvested locally –
- Serves 20,000 catchment pop
- Community Hub (during storms opened to the whole community for shelter & power)
- Accessible to all community groups, yoga, basketball, etc

"Powering a swimming pool renewably remains rare in Ireland — this project sets the standard." — LEADER Application

Impact and Benefits

Real, Measurable Impact

220

TONNES —
CO₂ saved annually

76%

REDUCTION —
Thermal energy consumption

A3

RATING —
NZEB standard achieved

Environmental

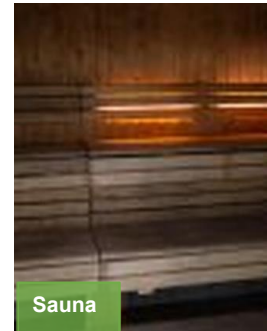
- Fossil fuel dependency eliminated
- 138,468 kWh produced on-site yr
- TCO₂ projected <200 in 2025

Economic

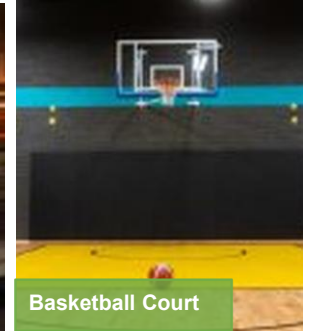
- Major energy cost savings
- Long-term financial viability
- Protected from fossil fuel risk

Community

- Key community facility secured for all
- Profits reinvested locally (SE)
- Support Local Tourism



Sauna



Basketball Court

Operational: 336 kWh/m²/yr (was 1,707) · 800m² extra conditioned space · BMS, LED, VSD pumps all upgraded

Climate Action LEADER project

A Model Worth Replicating

01

Community-Led Social Enterprise

Profits reinvested locally. Community retains a critical facility with high levels of local ownership.

02

High Climate Impact

~220t CO₂ saved annually. A3 NZEB rating. Sets the standard for large-energy-use facilities in Clare.

03

Clear LDS Alignment

Directly delivers LEADER Rural Infrastructure, Climate Action, and Community Resilience priorities.

04

Replicable Model

Rare example of renewably powering a leisure centre. Applicable to sports halls, community centres.

05

Real-World Learning

60% downtime reduction post-training. €69k maintenance costs shown honestly — both matter for replication.

06

People + Technology

Technology alone is not enough — capacity building, staff training and monitoring are essential co-investments.

Their mission continues, to empower, motivate, support and include all individuals and community groups within the surrounding communities to better health and wellbeing