

# SMEs Reduce Costs Through Energy Efficiency Upgrades

## Ballon Rathoe Childcare Centre & Castlecomer Discovery Park Case Study

With energy costs making up a significant portion of their annual costs at their sites, Ballon Rathoe Childcare Centre and Castlecomer Discovery Park are concerned about promoting a sustainable energy practice while meeting their daily business objectives. The 3 Counties Energy Agency through the Sustainable Energy Authority of Ireland's Better Energy Communities programme is helping by administering state-wide funding for energy efficiency and renewable energy projects to local SMEs, sports clubs and community groups among many others.



Castlecomer Discovery Park

Company name:	Castlecomer Discovery Park
Project actions:	Energy audit, installation of roof insulation and refurbishment of geothermal heating system
Finance	Internal
Additional funding	SEAI BEC 2015
Grant amount	€7,741
Savings	€4,614

Company name:	Ballon Rathoe Childcare
Project actions	Energy audit, Installation and commissioning of high efficiency boiler, solar water heating and LED lighting upgrades
Finance:	Internal
Additional funding	SEAI BEC 2015
Grant amount	€18,412
Savings	€2,020

	Ballon Rathoe Childcare	Castlecomer Discovery Park
Total Consumption Before	61,263kWh	307,500kWh
Total Consumption After	44,549kWh	224,827kWh
Variation	▼ -27%	▼ -26%

## Background



Ballon Rathoe Childcare Centre

The Castlecomer Discovery Park is located on an 80 acre woodland site. The park is a registered charity and it operates on a not for profit basis. Ballon Rathoe Childcare Centre is located just off the main street in Ballon on the site adjacent to the old primary school. The centre provides childcare facilities.

Both facilities reached out to 3cea to conduct an energy audit at their sites.



## Project Description

3cea conducted energy audits at the Ballon Rathoe Childcare Centre and Castlecomer Discovery Park. The purpose of the audits was to assist the facilities with the identification of energy efficiency measures. 3cea identified lighting, insulation, boiler, geothermal and solar water heating upgrades among other measures which when implemented, would result in energy and cost savings at the facilities. 3cea were successful in applying for **50%** grant funding towards the capital cost of the identified energy efficiency upgrades at both sites from the SEAI.

## Completed Measures



Solar water heating



Boiler upgrade 90%+ seasonal efficiency



LED lighting retrofit



300mm+ Attic insulation



High efficiency heat pump heating system refurbishment

## Benefits

- **Solar water heating**- provides hot water throughout the year achieving reduced bills and carbon footprint.
- **Boiler Upgrade**- modern condensing boiler will achieve a seasonal efficiency of over 90% meaning that for every €1 spent on oil or gas, an equivalent of €0.90+ will be given back in heat as opposed to ~ €0.70 for older type units.
- **LED lighting**- provides same light output as traditional lighting systems at a fraction of the cost and has long lifespan which reduces maintenance costs.
- **Attic insulation**- 25% of heat losses through the roof of an uninsulated building. Roof insulation is cheap and easy to install.
- **Heat pump**- One of the most efficient heating technologies, uses electricity to absorb heat from the environment and transfers it to an occupied space. Proven efficiencies of 420% and higher.

Interested in energy efficiency projects? Get in contact with our team on [www.3cea.ie](http://www.3cea.ie)