lyit | Institiúid Teicneolaíochta Leitir Ceanainn
Letterkenny Institute of Technology

EAUC

November 2015

LYIT

- Letterkenny Campus – 97 acres
- Killybegs Campus – 5 acres
- 3,200 Full Time Students
- 30,000 sq m Buildings

Energy Use 2014

	kWh	Cost €	% Total Energy
Gas (LPG)	746,084	€42,997	13
Oil	1,299,744	€87,058	22.5
Electricity	1,997,663	€268,216	64.5
Total	**4,043,471**	**€398,271**	**100**

2020 Target SEAI M&R

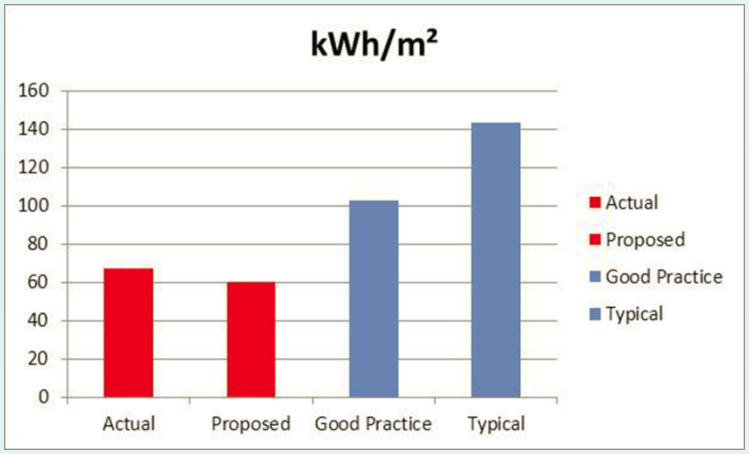
- 41.5% savings since baseline
- 2,046 kWh/FTE Student (TPER)
- Best performer public bodies and 3rd level

Biomass Project – SEAI Exemplar

- Biomass District Heating Scheme.
- LESC contract - Design, Finance, Install, Commission, Operate including fuel supply.
- Campus wide except Sports/Multi-purpose building
- Ex. boilers 20 years old (5 x 575kW+2 x 332kW+2 x 190kW) in need of replacement + new gas 460kW condensing boiler (2012) retained as backup/peak demand.
- SRC Willow plantation established on 23 ac/9.5ha. = to expand to 50 ac./20ha. – potential to supply 45% of heat required pending willing LESC contractor. Harvest 2017.
- Project on hold pending RHI/Tax/Current low gas & oil prices

Feasibility Report Findings 1

- LYIT Heat Load EnPI Fossil Fuel 67kWh/m^2 DEC C2
- Benchmark non-res. University103kWh/m2.
- LYIT below good practice benchmark for type
- Heat Load not expected to change with project.



Feasibility Report Findings (2)

- New 450kW Biomass boiler
- Capital cost €455k
- System Lifetime 20 yrs
- Estimated Output 1,025,250kWh
- CO_2 savings 303 tonnes
- Total savings per year €47,000 fuel/172,297kWh boiler efficiency (assumes 4.5cent/kWh Biomass Heat Supply contract)
- Simple Payback 10 years

Waste Management

- Waste Recycling off campus – 90%
- Segregation on site - bottles, aluminium cans, batteries.

Sustainability Priorities & Objectives

Achieve further Energy Savings, through:

- LED lighting
- Conversion oil to LPG
- Biomass & District Heating project
- Staff awareness and training
- Improved design of new buildings
- Fabric upgrade of existing buildings

Suggested Activities EAUC

- Information sharing
- Knowledge
- Benchmarking
- Increased sustainability profile