



southern waste region



ANTARIS

GUIDANCE | COMPLIANCE | TRUST

Oifig Fiontair Áitiúil
Local Enterprise Office



Carlow-Kilkenny
Training SKILLNET



Business cost savings through waste prevention & resource efficiency

HEALTH & SAFETY MANAGEMENT

QUALITY MANAGEMENT

ACCESSIBILITY

ENVIRONMENTAL MANAGEMENT

ENERGY MANAGEMENT



- Improves efficiency and effectiveness of business
- Encompasses the ways in which a business contributes to a better society
- Actively encourages engagement with stakeholders: business, customers, employees, share holders, local community etc
- Provides value to stakeholders
- Integrates social and environmental concerns into business operations





- Efficient use of energy, water, materials, time, effort
- Prevention of waste
- All these things cost money
- Small businesses need money/cash flow
- **So..**

.....Why don't businesses focus on Resource Efficiency?

- Too busy making products/ providing service
- Not enough staff time devoted to RE
- Capital expenditure an issue
- Confused by the variety of technologies/ solutions
- Weak environmental policy/ culture



- Cultural change, need to place greater value on resources
- Management need to be convinced to invest in RE, from a cost and market perspective
- Staff awareness
- Technology



- Measure and Report – see the value
- Prioritise – Pareto, 80/20 Rule
- Identify Cost Effective Solutions (Technical, Practical, Assistance available)
- Implement (Involve employees)
- Measure again – report the benefits



Logistics Company

- Replace high pressure mercury bulbs in warehouse with equal wattage plug-in metal halide lamps 'S' type - 45% more light and no additional control gear.

Engineering Company

- Fleet fitted with GPS systems to monitor driver speed, which is both a safety feature and a fuel-saving measure.
- Driver training - accelerate gently, drive in a high gear, brake gently, and avoid idling engines for long periods.

Various sites

- Replace T8 florescent light with T5 florescent lights.
- 40% reduction in energy

Engineering Consultancy

- Zero waste to landfill for construction projects
- High efficiency motors
- Fuel monitoring, saving and avoidance (overnight instead of long distance commuting)



- **Packaging Company Water/Gas/Electricity/Waste:**
 - Push tap replacement:: 4 - 6.5 Litres per 'push'.
 - Sensors installed in Mens' toilets to control urinal flushing Result:
 - Reduction in Water usage of ↓17% / annum. Once-off investment: €1,200.
 - Gas System managed in each area separately. Training and reinforcement of the correct use of the system led to initial reduction of ↓ 40% in Gas usage.
 - Gas line is shut off for 6 months of the year saving ↓ €2,500 / annum .
 - Investment: €140 / annum (to reopen line)
 - Night time electricity use survey
 - Timed sockets, FLT charging only when needed, old batteries replaced
 - Result: Electricity reduced by ↓11% / annum. Minimum investment.
 - Process efficiency, Scrap logs, improved segregation, other measures
 - Cost: No investment; Result: Waste is down by ↓ 26%



- Performance Plastics Company
 - Air leak detection surveys conducted using ultrasonic detectors.
 - “out of hours” surveys are used to listen for leaks, locate and tag them and ask staff to participate also. Piping/hoses, joints, drains, valves, fittings, filters and lubricators checked.
 - Shut off compressors when they are not required, e.g. during down time or lunch breaks.
 - Filter cleaning and replacement, refrigerant levels in driers, and condensate removal.
 - Cost: Minimal Savings – expected to be significant, not yet determined
 - Future retrofiting - will consider installing VSD compressors, or investigate if a VSD can be retro-fitted to the current compressors.

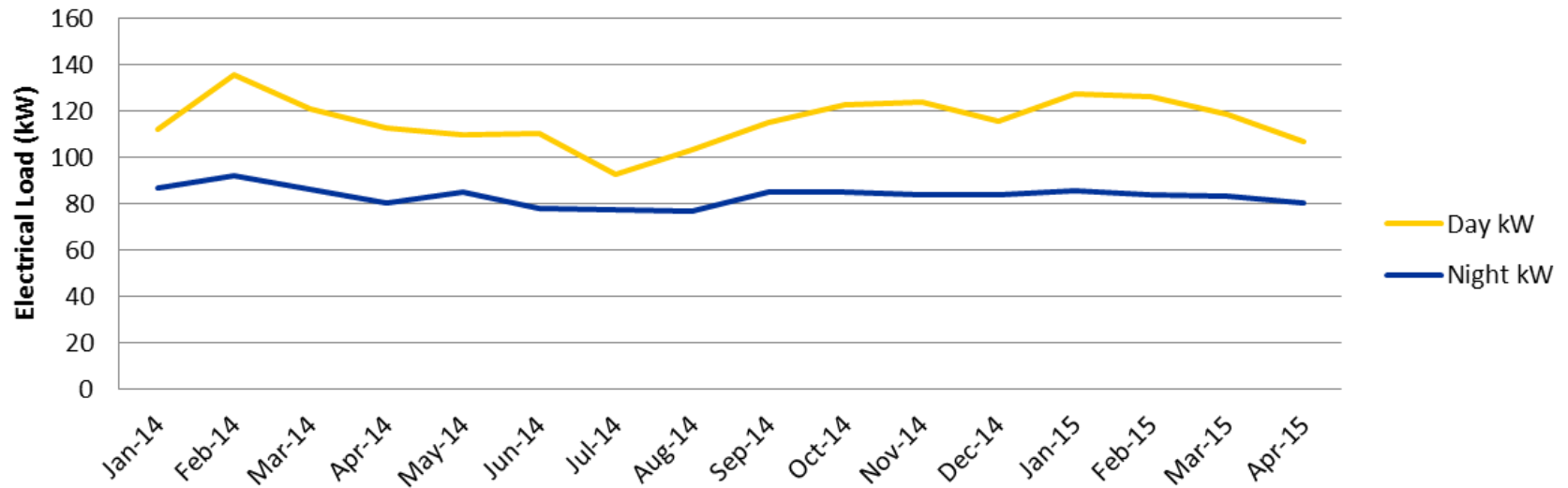


- **Organic Food Supplier**
 - Cradle to cradle approach - Local suppliers whenever possible and waste goes to local farms.
 - Potential savings for fridge and freezer use - > energy reduction in cold storage, example from previous company experience
 - Lamp Cost- €9,000, Energy Savings - €15,000
- **Transport and Delivery Companies:**
 - Driver training and fuel consumption monitoring with feedback to drivers. Typical savings c. 10-15%
 - Cost - Minimal
 - Result - Financial Benefits: Cost Savings: Usage dependent Payback: Immediate
Environmental Benefits: CO2 reduced – 10-15% p.a.
- **Car Parts Manufacturer**
 - Installation of master switch for electrical supply for scheduled downtime
 - Cost - €300
 - Result – Up to 70% of operational energy levels



Example Day/Night Comparison

Average Day & Night Load Each Month





Some other opportunities:

- Install energy & water meters to understand energy flow
- Implement monitoring and targeting – expected payback, typically 1 - 2 years
- Implement an Energy Awareness Day for employees
- Conduct an 'Out of Hours Audit' to identify night time energy users
- Load compensate boilers – 1 – 2 years payback
- Upgrade lighting, Install TRVs on radiators for temperature control
- Reduce pressure setting on compressed air c. 4% saving per bar
- Raise awareness – turn off computers, reduce driving speed, turn down radiators, A/C, etc.



- SRWMO – Project aimed at assisting SMEs with efficiency improvements
- Chambers Ireland CSR Council/ Presidents CSR awards
- Business in the Community



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