What’s an ideal energy efficiency project?
The Supermarket Industry
Supermarket Industry

• The Project

• The Challenges

• The Benefits
How it started
The Project

• Supermarkets – built to waste
• No natural lighting or poor design
• Excessive artificial lighting
• Open refrigerated cabinets
• Massive heat/cool fighting
What does this cause?

• Very large lighting loads
• Increased glare
• Huge refrigeration loads
• Cold customers
• Increased space heating
• Poor product temperature control
What did we do?

- Natural lighting
- Automated lighting controls
- Doors on fridges
- Refrigeration heat recovery
Skylights – Your trump card

• Shown to increase sales
• Improves customer experience
• Increase staff morale/retention
• Highly visible for customers
• Can reduce lighting loads by 50%
• Brings the natural environment into the store
Before.......
After.....
Project Results

• 38% verified energy savings
• Reduced maintenance costs
• Improved product shelf life
• Improved customer and staff comfort
• Increased staff morale
• Total store sales increased by 6%
The Challenges

• Turnover vs. energy savings

• Doors vs. sales

• Natural lighting
Turnover vs Energy Savings

- Energy costs small compared to turnover (less than 0.5%)

- Minor reduction in sales will wipe out substantial energy savings
Doors vs Sales

- Reduced sales perception
- Complex issue depends on product, display, position & lighting
- Pick your battles – Prioritize
- Trial installations
Natural Lighting

• Preconceptions
  • Introduce UV light
  • Cause glare
  • Increase cooling load
  • Potential leaks

• Bad design
The Benefits

• 50% plus energy savings
• Increased sales
• Improved product shelf life
• Reduced maintenance costs
• Environmental credentials
• Comfortable customers and staff
• Improved morale
The ‘Super’ Market

• Supermarket industry
• Already proven results
• More opportunities available
• Challenges can be overcome
• Financial, environmental and community benefits
‘Super’ Market of opportunity