Energy Management Practices
In Australian Industry

Carl Barrett, Group Risk and Sustainability Manager

Energy Management Action Network
Guilin, China, 15 November 2011
Scope of energy use

- Asphalt
- Bricks (clay & AAC)
- Cement
- Civil and Mine Engineering
- Commercial Constructions
- Concrete
- Fibre Cement
- Insulation
- Metal Roofing

- Pavers
- Plasterboard
- Plumbing
- Quarries
- Residential Construction
- Roof Tiles
- Steel
- Transport
- Windows
Why Energy Management?

**Government Regulation**
- 1999 Voluntary Programs
- 2006 Energy Efficiency Opportunity Act
- 2007 National Greenhouse & Energy Reporting Act
- Nov 2011 Clean Energy Legislation Bill Passed

**Strategic Advantage**
- Diesel Price Volatility
- Gas International Price Parity
- Electricity Price Reflectivity
- Carbon Price Risk
- Green(er) consumers

Source: www.lenovoblogs.com
Energy Efficiency Opportunities Program

Rigorous and Comprehensive Assessments

• 5 year Plan
• 80% coverage of energy use
• Evidence based

Leadership
People
Information, Data & Analysis
Opportunity Identification & Evaluation
Decision Making
Communicating outcomes

Six key elements
Leadership

- Managing Director
- Corporate Resources
- Divisional Managers
- Operations Managers

Source: unicus2010.files.wordpress.com
People

因人成事 - Success through the help of others

• Small coordinating teams
• Skilled, influential people
• Large implementing teams
• Diversity of people
Information, Data, Analysis

井底之蛙

Source: thefinancialphilosopher.com
Case Study: Business Units
Case Study: Facility

- Kilns: 79.1%
- Dryers: 11.2%
- Rest of Plant: 8.3%
- Transport: 1.4%
Case Study: Process
Case Study: Interaction of Processes
= Energy Mass Balance
Case Study: Facility

- Kilns: 79.1%
- Dryers: 11.2%
- Rest of Plant: 8.3%
- Transport: 1.4%
Case Study: Interaction of Processes
= Energy Mass Balance
Opportunity Identification and Evaluation

• Opportunity Identification Workshops
  • Invitation from General Manager
  • Participants with diverse backgrounds
  • Present and discuss data
  • All ideas welcome

• Evaluation
  • Multi-criteria decision analysis tool
  • Consider resource constraints
  • Cost benefit analysis – Pay Back Period
  • Leverage other benefits eg. Contracts, Grants
Decision Making and Communication

• Decision Making
  • Formal project proposals
  • Involve decision maker early
  • Links to other business priorities

• Communication
  • ‘Tool-box’ Updates
  • Management Updates
  • Promote Success

Source: mobilephun.com
Results

- 200+ Ideas
- 95 Opportunities
- 47% Implementation commenced or Implemented
- Already achieved ~ $13.2m RMB / yr

Additional Leverage

- Reduced energy leakage – theft, waste, cost
- Substantial improvement in Energy Contracts
- We now get paid to be energy efficient!
- Built Internal Capacity
- Award Winner for Energy Efficient Homes
Future Directions?

- Suggest Communications Strategy

Source: risingsunkayaks.com

[Image of a blue lake with green islands and mountains in the background.]
Questions?

Source: thinkthinks.com
Thank you for Listening
and
Good Luck on your Journey

谢谢, 祝各位好运