

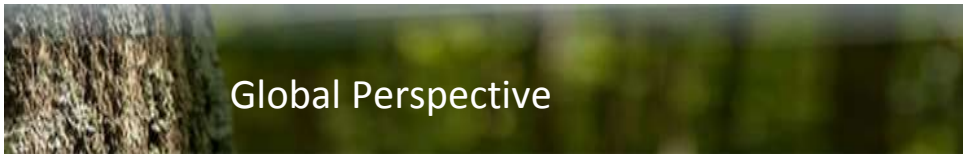


Focusing on the Environment through Energy Excellence

Presented by David Arkell,
President and CEO,
360 Energy



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Global Perspective

International Experts



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Risk of Losing Awakened Consumers



Cover collage from Deloitte & Touche "Tax Wednesday" seminar, March 26, 2008

Local and Regional Government driving changes because of the Environment

Executive summary

All 32 of Scotland's local authorities are signatories to Scotland's Climate Change Declaration (SCCD), which commits each authority to a series of actions intended to both mitigate the effects of climate change and adapt to its consequences. Good practice in energy management in local authority buildings is key to reducing carbon emissions from local authority activities.

Active senior commitment

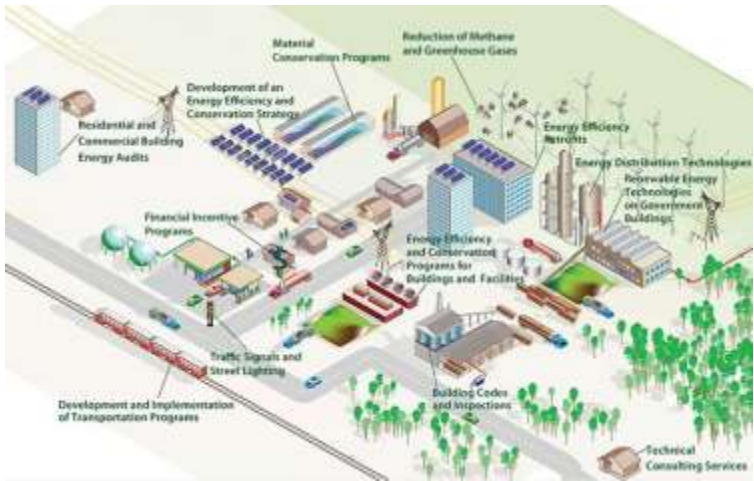
Successful energy management in any organisation comes from the top. Without the active involvement and support of the most senior managers in the local authority, energy management will fail to meet its potential however committed and active the Energy Manager and team. Active commitment means more than simply signing declarations and 'making the right noises', it requires tangible actions from those in influential positions.

Region of Peel
 rethinking energy. *energy management* *empowering Peel*
 Ontario Demand: 16,600 MW
 Wholesale Price: 3.22¢ / kWh
 (MERC, 2010) (Source: IESO)
 Energy and Environment at Peel
 Conservation
 Renewable Energy
 News and Events
 Finance
 Energy at Peel
 Conservation
 Renewable Energy
 News and Events
 Your Comments?
 Subscribe to our newsletter

TOWN OF CALEDON
 Caledon Farmers Market
 Planning & Development
 Office of Environmental Progress
 (905) 884-6292 ext. 4249
 Monday to Friday, 9:30 am to 4:30 pm
 Open House: Environmental Progress Office
 January 18-20, 2011, Energy & Environment Coordinator
 2011 Environmental Action Report
 Environmental Progress Action Plan
 Highlights
 Government Focus in Ontario
 Community Environmental Groups
 Letter
 Caledon has many sources of renewable energy. Find out how

Creating a Greener, Healthier & Energy Efficient Hamilton
 Leading by example through:
 • Energy conservation and demand management
 • Energy efficiency
 • Renewable energy
 • Education and information

Municipality Energy Management Activity



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Development of a Plan

Sustainable Energy Plan- Template

Contents

Executive Summary

- Scorecard Results
- Baseline Energy Use
- Key Actions
- Savings Estimate & Financial Evaluation
- Goals and Measures

1. **Baseline Energy Use
- GHG Inventory**
2. **Savings Opportunity Assessment**
3. **Objectives & Goals**
4. **Planned Actions**
5. **Financial Assessment**
6. **Budget**
7. **Energy Mandate**

APPENDICES

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Supply

-Installing new generation



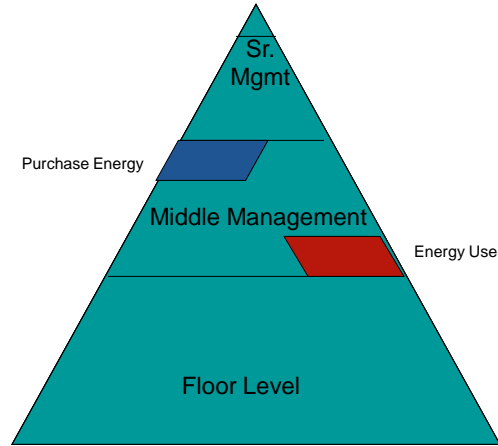
Demand

-Waste
-Conservation
- Demand Management

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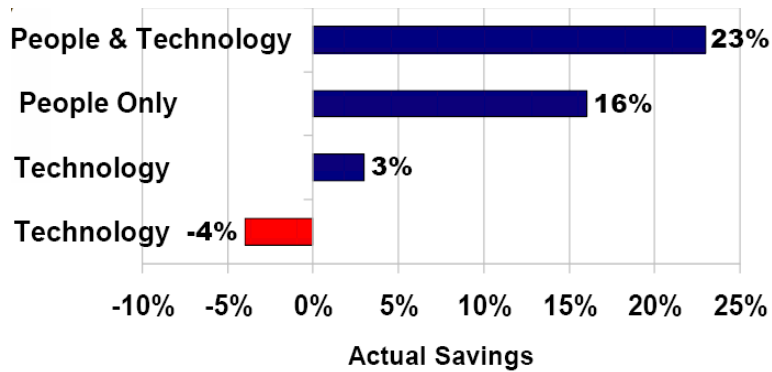
Change required to create sustainable energy/environmental management within organization



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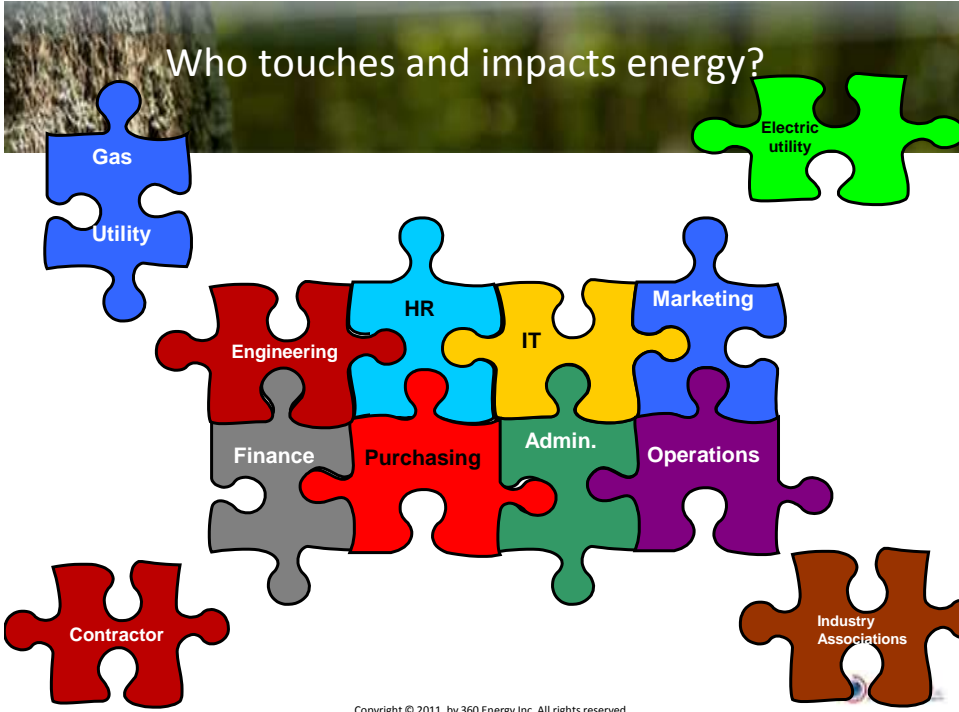
People and Technology are Required



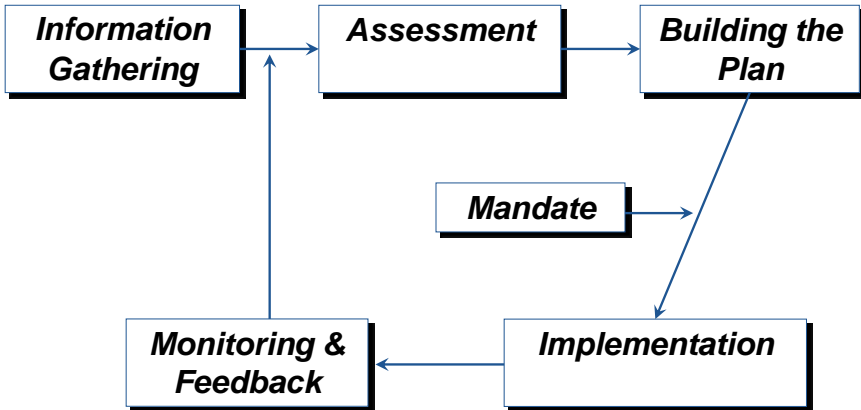
Source: Good Practice Guide 84 Managing and Motivating Staff to Save Energy

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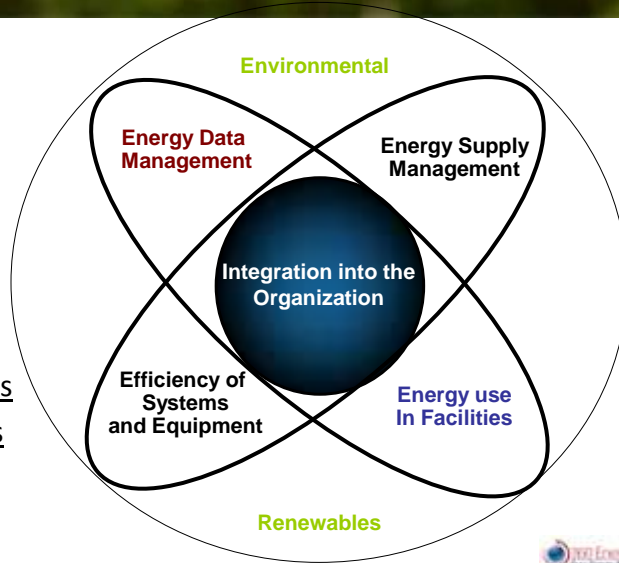
A Systematic, Process-Driven Approach



Energy Management Best Practices

- Five focus areas

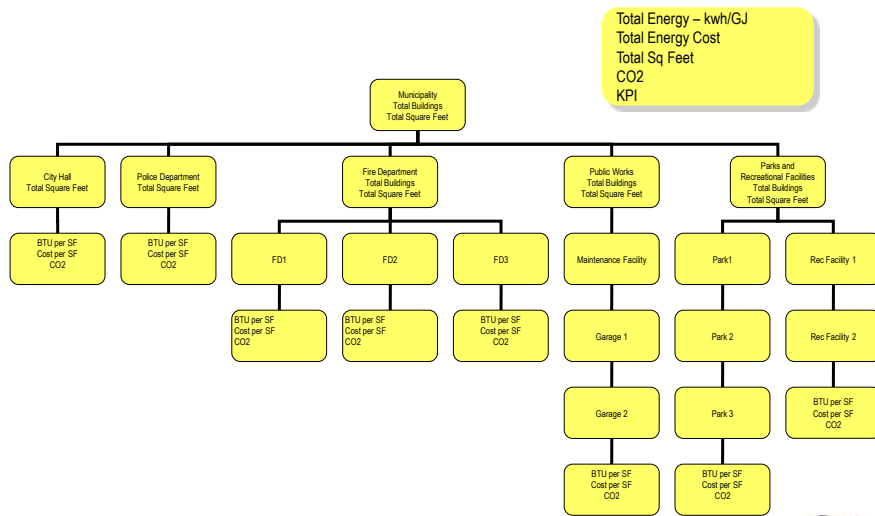
Basic processes
 Advanced programs
 Aggressive projects



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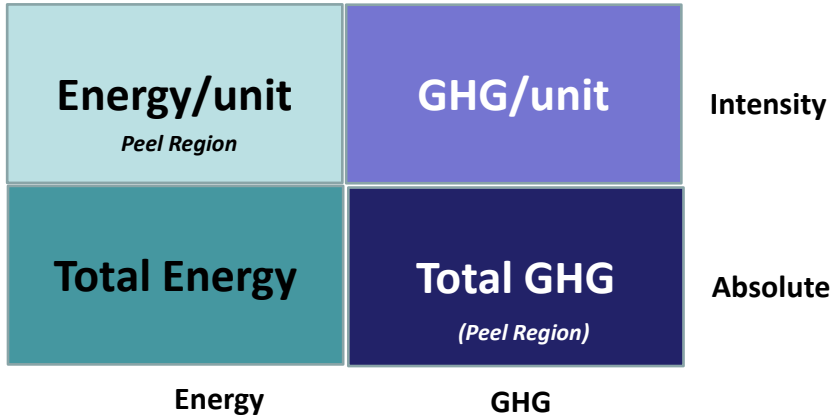
Municipality



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Performance Metrics



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Constant Monitoring and Reporting is required to all

* Carbon Emissions *

Building Code & Name	MMBTU Avoided	Same As	
		Cars Removed	Trees Planted
Police Department	147 MMBTU	6 cars	12 acres
Water & Waste Water	22,379 MMBTU	918 cars	1,902 acres
Fire department	2,381 MMBTU	98 cars	202 acres
Street LIGHTS	3,209 MMBTU	132 cars	273 acres
Government Assisted Housing	8,765 MMBTU	358 cars	745 acres
RES	1,145 MMBTU	47 cars	97 acres
SCMS	3,908 MMBTU	160 cars	332 acres
City Hall	11,556 MMBTU	474 cars	982 acres
Parks and Recreation	6,472 MMBTU	265 cars	550 acres
VES	3,137 MMBTU	129 cars	267 acres
TOTALS:	63,099 MMBTU	2,587 cars	5,363 acres



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Managing Energy/Environment

- Requires leadership, on going support, data management and organizational integration

When done right returns far exceed investment



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