

# Energy Efficiency for Enterprises



**SevernWye**  
ENERGY AGENCY

## Experience from Great Britain

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Intelligent Energy Europe

## Contents

Why?

Why not?

The national context

National level action

Best practice examples

Lessons learned

Solutions still needed



Intelligent Energy Europe

## Why?

### **Business concerns:**

- Cost reduction
- Co-benefits

### **Government drivers:**

- Energy security
- Carbon reduction

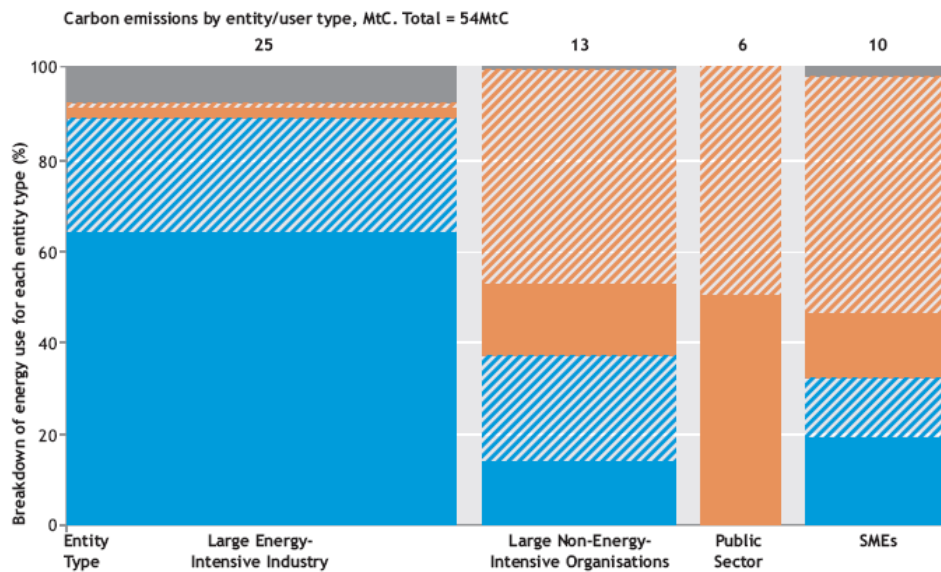


## Why not?

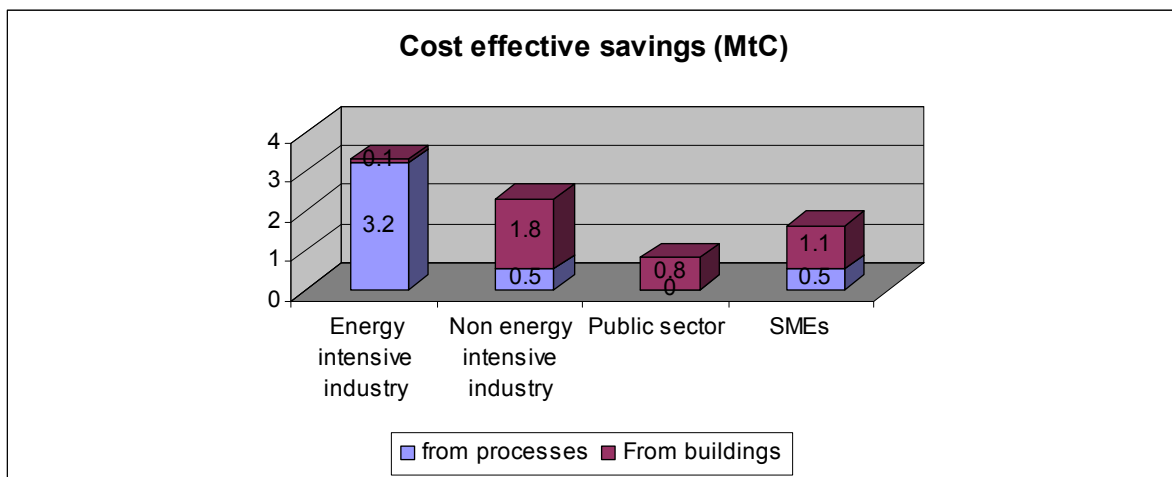
- Investment costs
- Hidden costs
- Transaction costs
- Market failures
- Ignorance, Inertia, Internal structures



# The national context



# The national context



## The national context

EU Emissions Trading Scheme

Climate Change Levy

Climate Change Agreements

Energy Performance of Buildings Directive



## The national context

**The Carbon Trust**

Formerly

**Action Energy**

Formerly

**Energy Efficiency Best**

**Practice Programme (EEBPP)**



# The national context

## UK EEBPP

### How do I compare with others?

- Benchmarking, guide to further action

### What are others doing?

- Good Practice Guides and Case Studies : Established technologies and techniques with further potential

### What's new?

- New Practice Case Studies : Newly developed technologies and techniques

### What of the future?

- Future Practice : Research and Development



# National level action

SME sector:

Diversity

Lack of time

Lack of resources

Lack of expertise



## National level action

SME energy efficiency aids:

Improved product standards & labels

Tax breaks: Enhanced Capital Allowances

Carbon Trust advice and 0% finance

Public sector leadership



## Best Practice Examples

Dairy Farms - Annual energy consumption:

Typical: 400kWh/cow

Good practice: 200kWh/cow

Typical use:

$\frac{1}{3}$  hot water,  $\frac{1}{3}$  cooling,  $\frac{1}{3}$  milking, lighting,  
auxiliary equipment



## Best Practice Examples

Stroud District,  
Gloucestershire:  
200 head dairy farm,  
initial consumption  
340kWh/cow.



## Best Practice Examples

Spring water milk pre-cooling  
optimised: 20% cooling  
energy saving

Variable Speed drive  
vacuum milking pump: 40%  
more efficient than existing  
pump

Heat recovery unit on  
cooling compressors to  
preheat hot water: 8%  
reduction in energy use



## Best Practice Examples

Golf Club: A combination of restaurant, bar, shop, sports changing accommodation, and offices: Has features common to all SMEs: Heating, hot water, lighting, cooling, office equipment, catering, building fabric



## Best Practice Examples

Golf Club,  
Gloucestershire:  
Heating management  
Cooling management  
Insulation  
Energy efficient lighting  
and controls  
Condensing gas boiler



## Best Practice Examples

Golf Club,  
Gloucestershire:  
30% less gas use  
20% less electricity  
More comfortable  
More controllable  
More reliable



## Lessons Learned

Someone must be  
responsible for  
energy  
Rewards must follow  
savings  
Energy use must be  
measured



## Solutions still needed:

Market failures: Tenant/Landlord,  
Builder/buyer, Utility/customer

Transaction costs for non core business  
very high for SMEs



## Summary

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National level action

Best practice examples

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