
Small Wind & Microgeneration –

Where small might mean big in energy policy

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‘... Householders described the sheer pleasure of creation and of self-sufficiency: “It’s like growing your own vegetables”.’

Source: Sustainable Consumption Roundtable, “Seeing the light”, October 2005

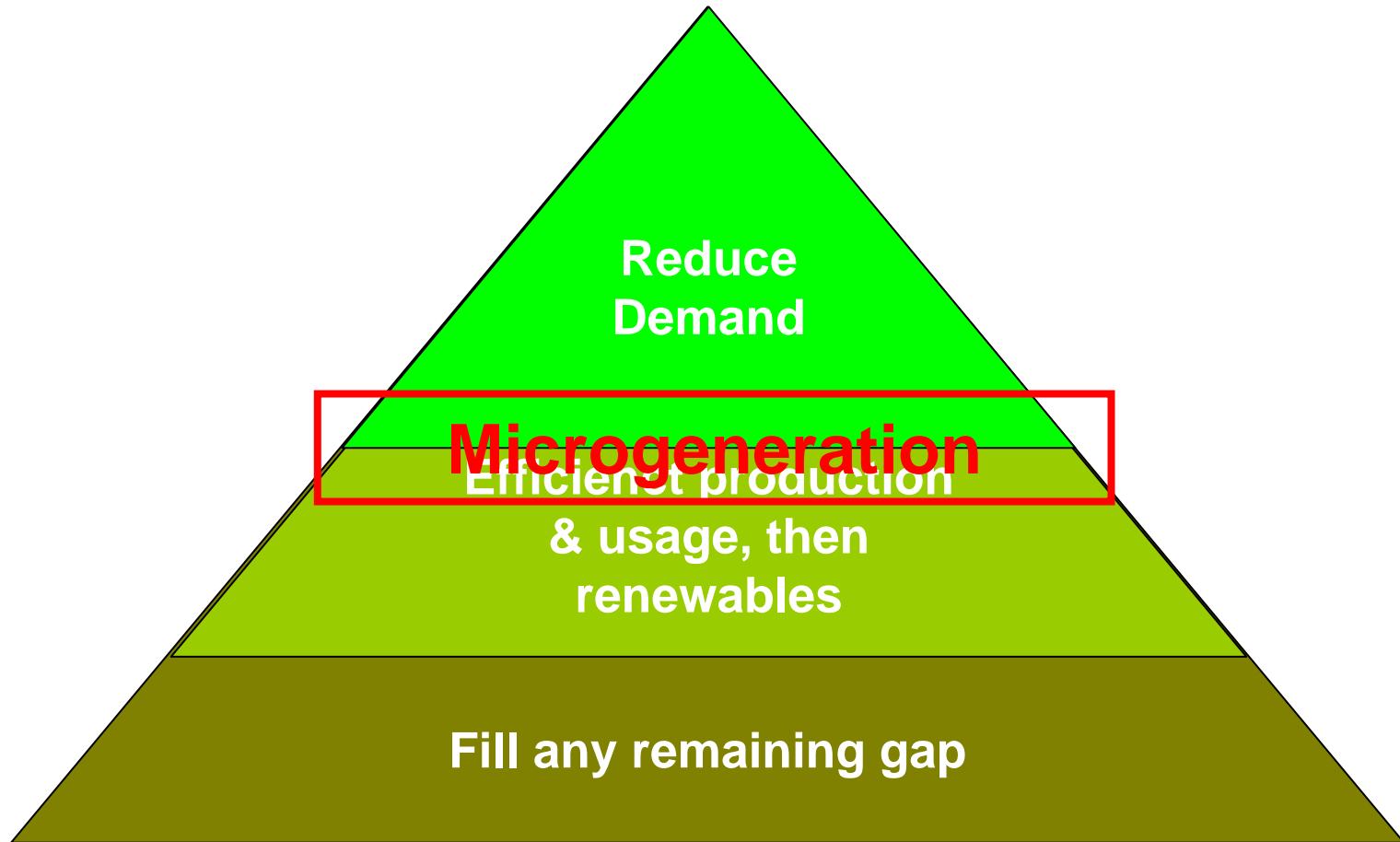
**MICRO
POWER**

Overview

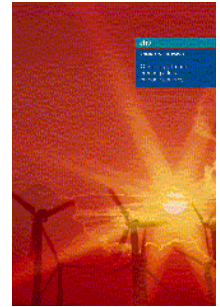
- Policy Context
- Critical Success Factors
- Policy
 - Progress so far
 - Barriers & Opportunities
- Industry's response & responsibilities

The Energy Review Challenge

Minimising the Energy Gap before trying to fill it



Micropower “metrics”



- **CO2 Reduction**

- ~1MtC of annual carbon savings can be obtained by any of:
 - 1m biomass-fired heating systems or heat pumps (1 in every 26 homes);
 - 6m gas-fired microCHP (1 in every 11 homes);
 - 7m (~1kW) micro-wind, (~1kW) PV or solar hot water (1 in every 3-4 homes);
- Generation at the point of demand – reduces transmission & distribution losses
- High volume potential

- **Reliability of Supply**

- 1GW new CCGT baseload power station's electricity would be displaced by any of:
 - 1m biomass-fired heating systems or heat pumps (1 in every 26 homes);
 - 3m gas-fired microCHP (1 in every 3-5 homes)
 - 7m (~1kW) micro-wind, (~1kW) PV or solar hot water (1 in every 3-4 homes);

- **Adequate and affordable home heating**

- low lifetime cost heating systems & solutions for hard to treat homes

- **Maintain UK Competitiveness**

- Encouraging innovation & high tech employment
- UK profits & dividends
- Reduced overall energy costs & greater economic efficiency

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Cultural Change

“Seeing the light”*

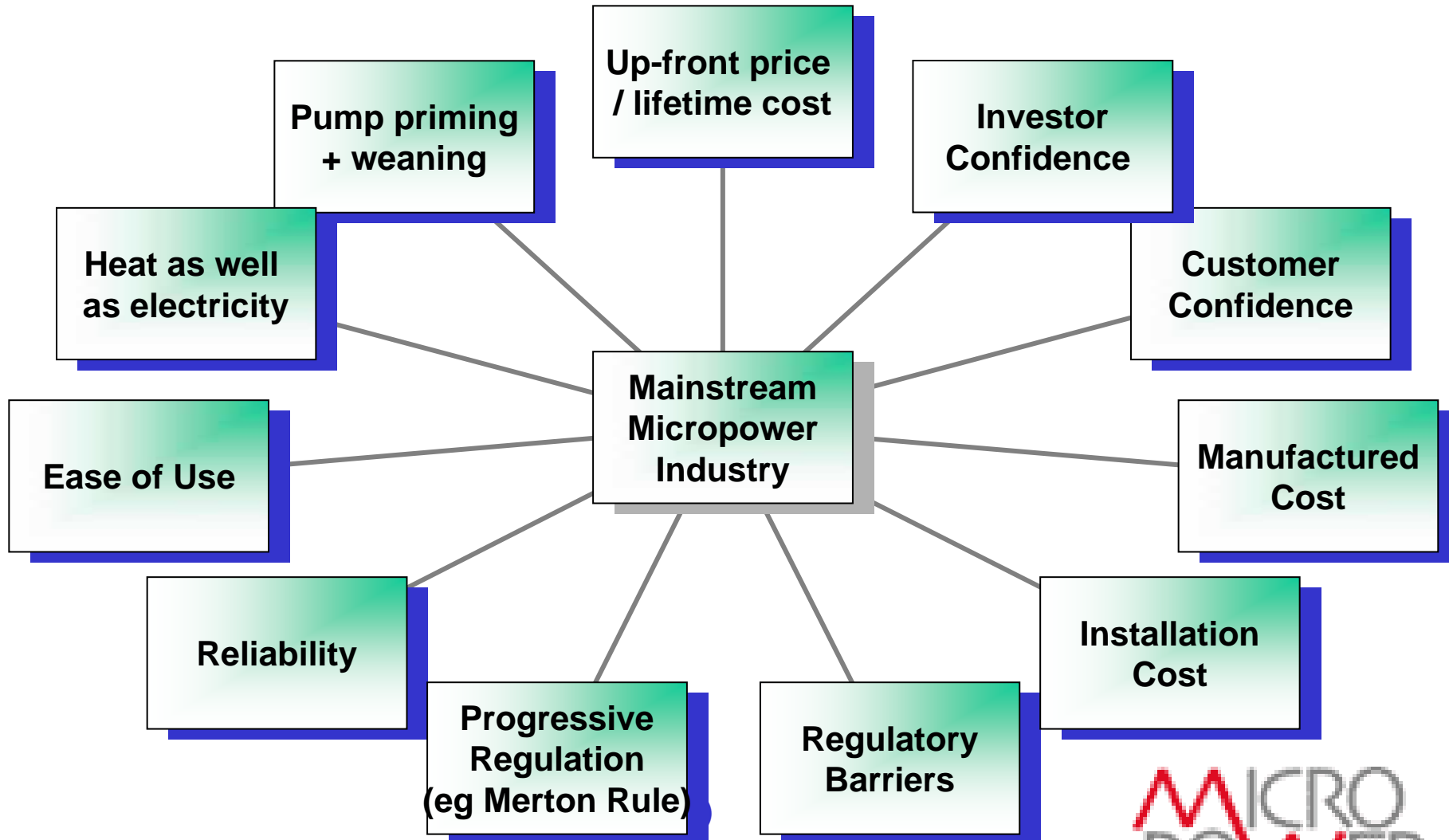
‘It seems that micro-generation provides a tangible hook to engage householders emotionally with the issue of energy use... Householders described the sheer pleasure of creation and of self-sufficiency: “It’s like growing your own vegetables”.’

‘The most striking finding is the difference in ‘energy intelligence’... these new DIY energy generators exhibit in general a wholly new grasp of energy issues and control over their energy use.’

‘A teenage couple...with solar hot water have actively chosen to buy A-rated appliances and investigate the environmental credentials of washable nappies

“I didn’t realise before that it was the immersion heater running away with the money. It’s made me more aware of where power is being used in my house”

Critical Success Factors



Regulation / Policy - Progress so far

Policy Framework / measures

- Microgeneration Strategy
- Climate Change and Sustainable Energy Act
- Energy Review
- Planning Guidance
- Further Energy Efficiency Commitment Changes
- Further Changes to ROCs
- Changes to the Building Act

Regulatory Specifics

- Permitted Development
- Simple metering
- Simple Grid Connection
- Boiler Efficiency Directive Changes
- 28 Day Rule waived, then scrapped
- Changes to ROCs

Public Expenditure / Financial Incentives

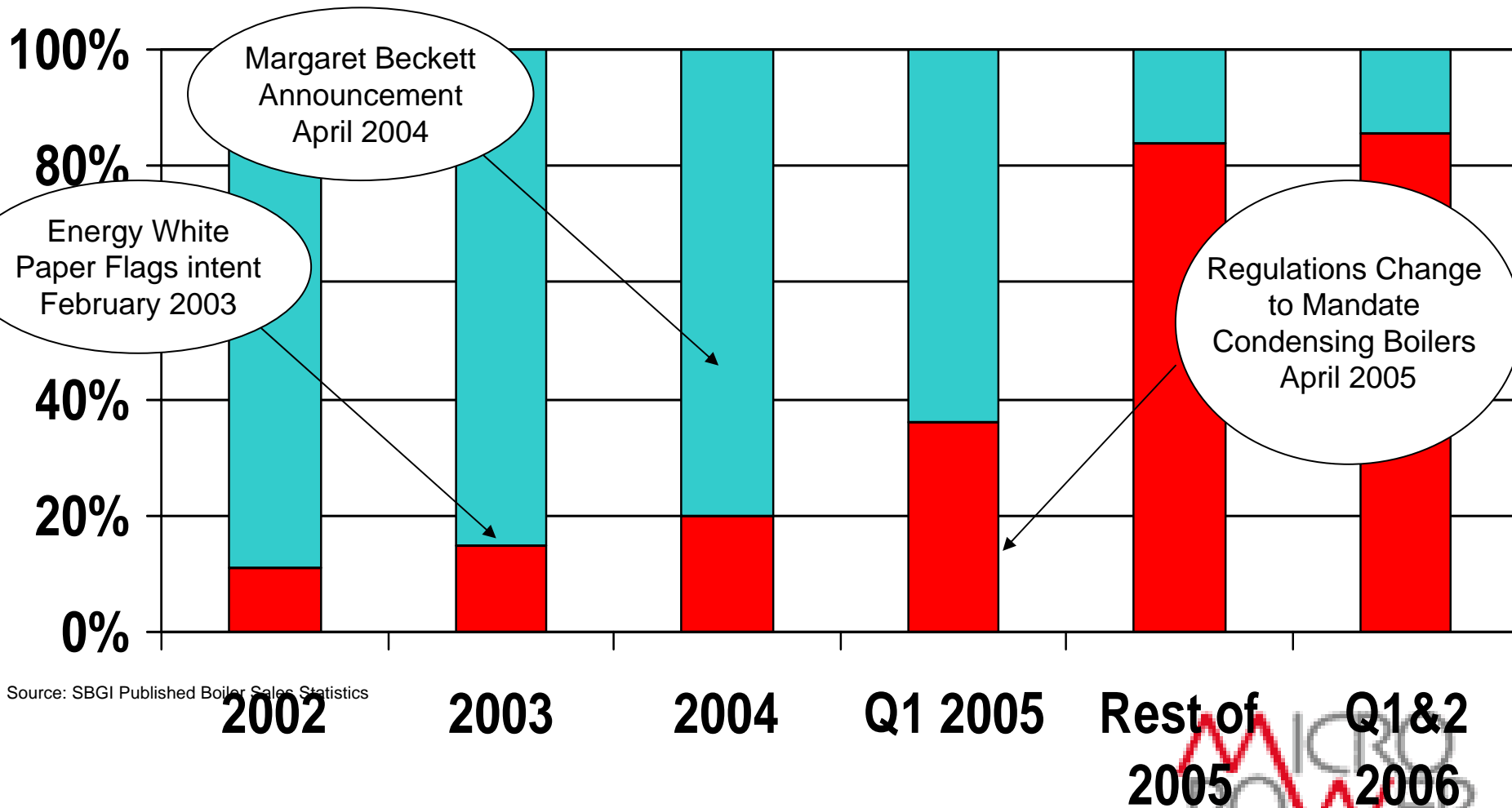
- £30m LCBP Phase I
- £50m LCBP Phase II
- £15m Fuel Cells
- 5% VAT
- EEC Enhancements

Barriers / opportunities

- Barriers
 - Planning
 - Fiscal
 - DNO Incentives
- Opportunities beyond grants
 - Planning
 - Building regulations
 - Fiscal
 - Export reward / access to ROCs

Building Regulations – the condensing boiler experience

Gas Condensing Boiler UK Sales, 2002 - 2006



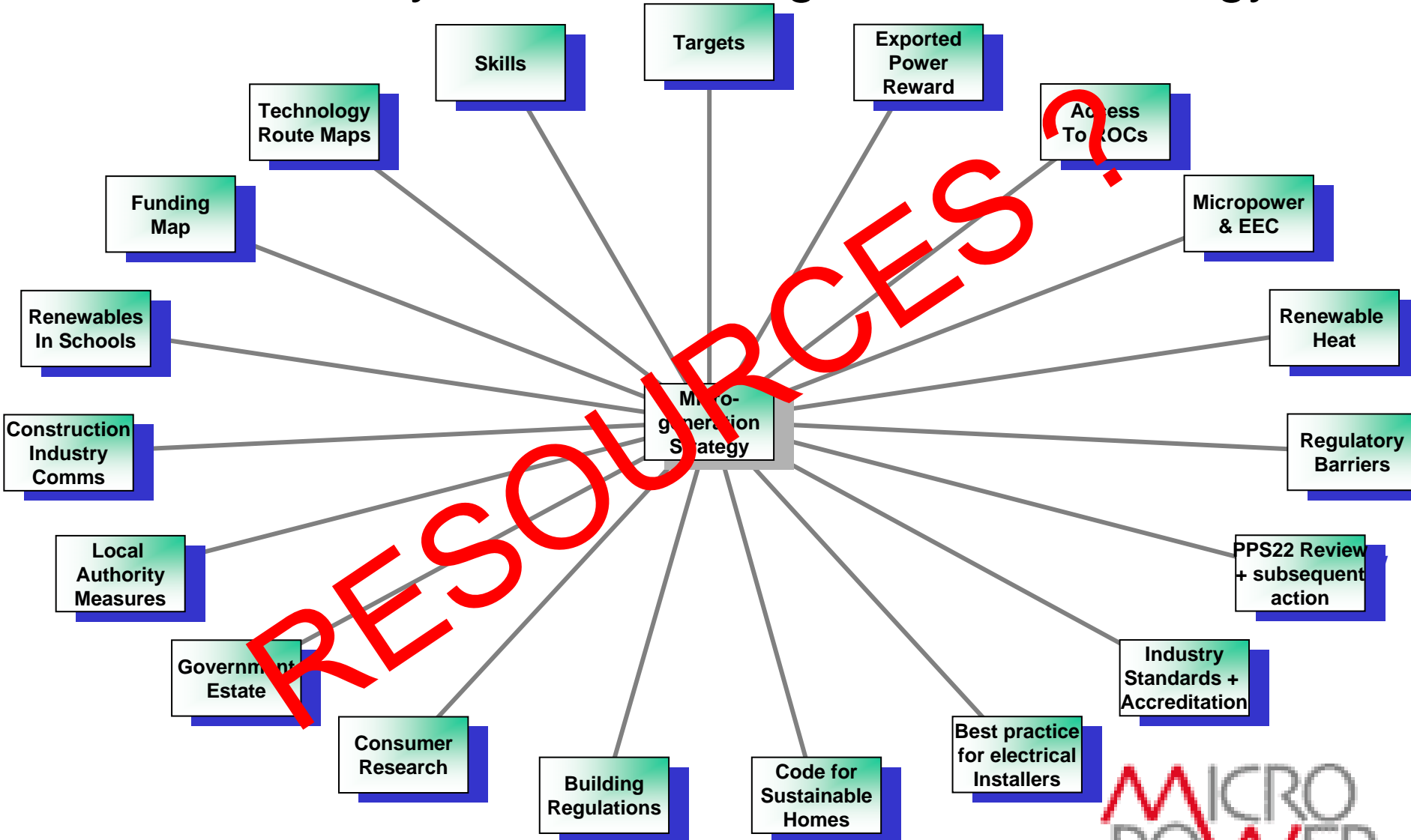
Source: SBGI Published Boiler Sales Statistics

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Building Regulations in the meantime...

- Climate Change and Sustainable Energy Act 2006
 - Creates new power for Building Regs chapter for microgeneration
- Code for Sustainable Homes
 - Used to promote microgeneration (Yvette Cooper, Hansard col 660, 11 November 2005).
 - Micropower Council proposal – glidepath towards Building Regs
 - Micropower required to qualify for level 5, progressing to level 3 over a period
 - Minimum percentage of homes to be at exemplar (level 5) immediately
- DCLG Review of household energy performance – opportunities:
 - Start to link house prices to running costs / energy performance
 - Home energy ratings – duty on estate agents
 - Requirement for green mortgages

Other Policy Areas - Microgeneration Strategy



...and also – spotlight on industry



- Delivery, delivery, delivery
 - Product availability
 - Product price
 - Installer & servicing infrastructure
- Ethical Sales
 - Fitness for purpose
 - “It does exactly what it says on the tin”
 - Over-hyped? Insufficient evidence either way, but solved by:
- Industry standards
 - BRE safety **and performance** Accreditation scheme, underpinned by performance monitoring
 - REAL Code

Can small mean big in Energy Policy?

Yes, but.....

- Regulation / Policy
 - Good progress, more to do, but commitments to do so
 - Implementation of Microgeneration Strategy key
- Industry's Challenge
 - Delivery
 - Standards
 - Mass market transition