

Sustainable Housing

Balancing the Big Picture



Sustainable Housing

Energy 'will be unaffordable in three years' as bills soar

Ann Robinson, from uSwitch.com, which compiled the figures, said: 'The UK is hurtling towards a cliff beyond which the price of household energy will become unaffordable.'

An estimated 6.5million people already live in fuel poverty, where they have to choose between paying for heating or for other daily essentials.

[Metro 30/05/12]

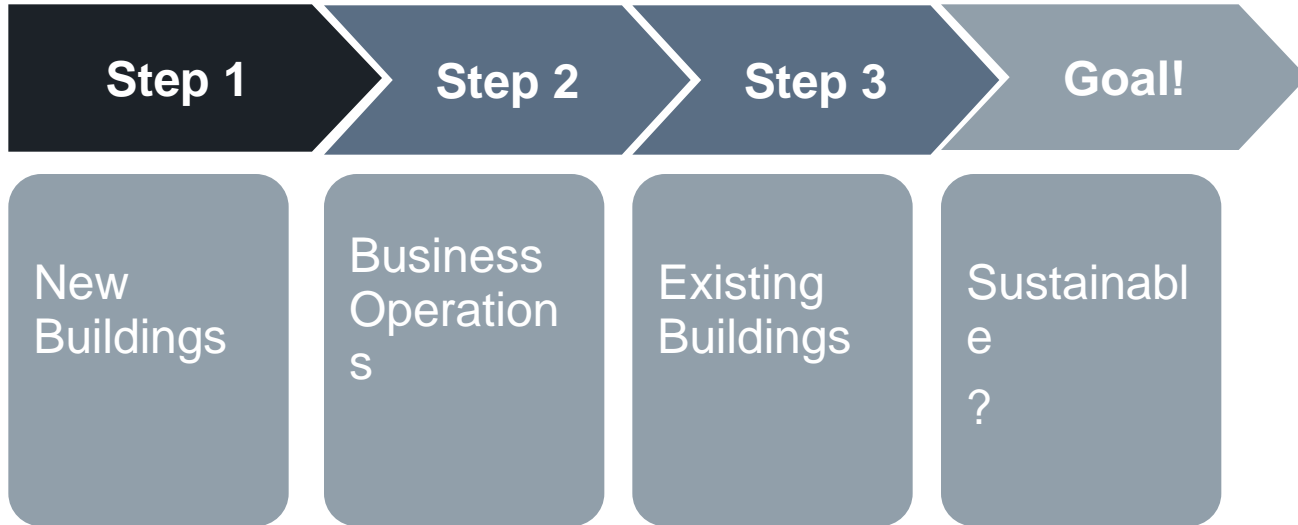
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Is Sustainability Just Energy?



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Current Policy



Sustainable Housing

Ethos

Why use Sustainable Housing?

Pros

- Reduced need for energy consumption
- Reduces waste
- Reduces impact on natural resources

Cons

- Costs more to build
- Does not consider in-bedded carbon
- Does not consider socio-economic impact

2012

Average house price	£226,887
Detached	£317,794
Semi-detached	£199,016
Terrace	£188,906
Flat	£222,123

[BBC 16/5/12]

2011

Average house price	£203,528
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[Dept Communities and Local Government 2011]

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Carbon Neutral or Quick Fix?

Photo Voltaic

Operation

60 -207g/KWh

Others

Energy Coal

850 g/KWh

Energy Hydro

5 g/KWh

Energy Nuclear

5 g/KWh

Energy Avg

460 g/KWh

Energy Gas

450 g/KWh

Energy Bio

25 g/KWh

Energy Gasification

5 g/KWh

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Carbon Neutral or Quick Fix?

£3,000 Photo Voltaic

PV cost 0.55p KWh

69000 MW equals

£38 million

Approx 39,000 people

£20 million Gasification

220 tonnes per day or 68,000
tonnes per year plant

69000 MW/year or 345MW/day

290 million tonnes equals 4.75
tonnes per person per year

14315 people

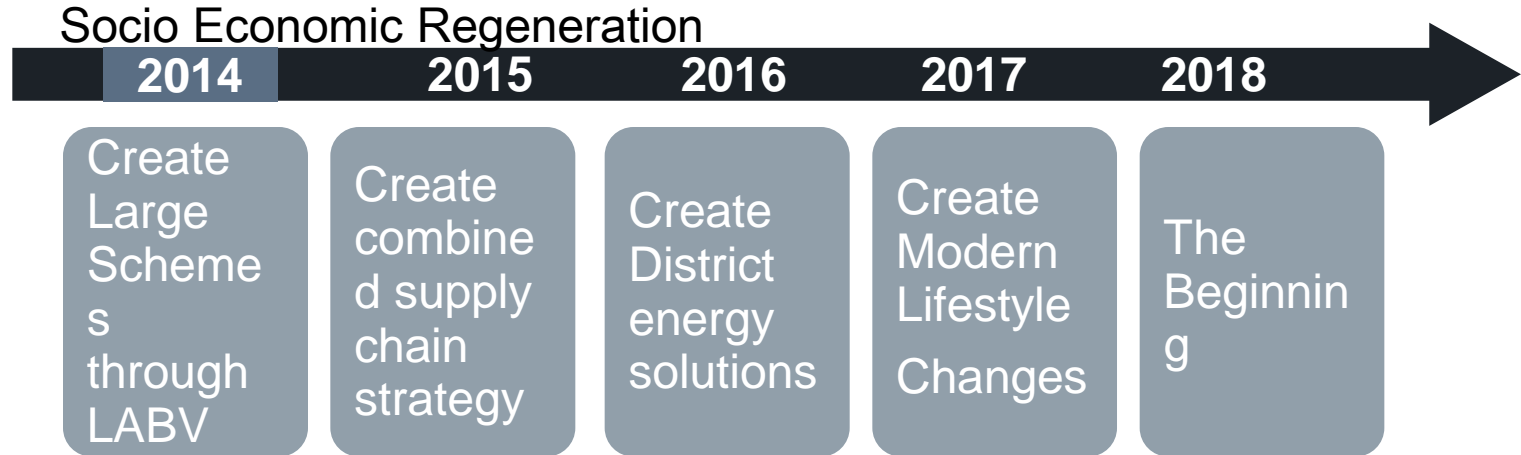
9.06 MW/year or
25KW/day per person
7505 people

0.01p KWh

50% of power consumption

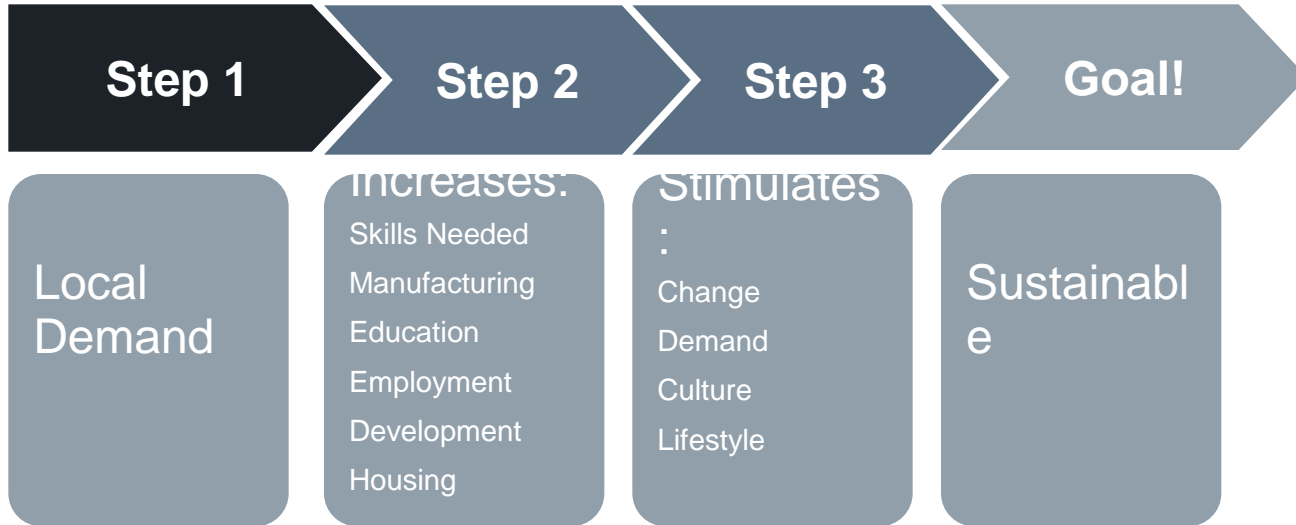
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Forming the Sustainable Community



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Community



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Forming the Sustainable Community

Why use Housing and Construction to drive sustainability?

Construction

- Impacts indirectly on 25% of the UK economy
- Sustainability agenda for the government already active
- Largest potential demand both in public and private sector

Water

- Aquifers in the South East will be exhausted within 10 years
- Water takes 5000 years to replenish

Energy

- Energy from waste plants generate 0.5MW of energy per ton of waste
- Gasification produces 1.1MW of energy per ton of waste
- PV needs to be replaced by BIPV (Building Integrated Photo Voltaic)

Materials

- Copper will be depleted by 2020 at current rates of consumption
- 30% of the worlds oil has been harvested

Pollution

- Only 7% of the worlds CO2 emissions are man made
- In bedded carbon is not currently calculated

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Forming the Sustainable Community

Benefits of a Sustainable Community

- Increases Local demands
- Boosts Manufacturing
- Reduces reliance on UK economy for export
- Boosts UK service industry
- Provides “safe haven” investment for pensions and sovereign wealth funds
- Creates Social Benefits
- Creates Economic Benefits
- Creates Jobs
- Creates Community Investment
- Creates Local Investment

Thank you !

