New funding models for retrofitting (after the death of Green Deal and ECO?)

Futurebuild

Matthew Rhodes

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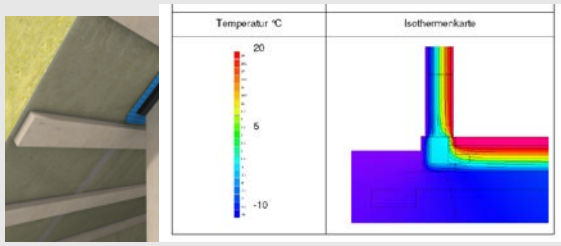

Distributed Energy

- Project development
- Finance (RHI, Green Deal, FIT, ECO)
- Feasibility and energy strategy
- Project management
- District energy
- Smart grids

Web Applications

- Gateway
- Enplanner
- RESPRO
- Survey tools

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Funding models for energy efficiency are changing

- Centralised schemes such as ECO/Green Deal have largely failed as efficient mechanisms
- Emphasis on private sector and 'community'
- DECC Community Energy Strategy
  - Slightly confused vision; a mix of
    - incentives and support for community-led, privately-financed projects
    - incentives to participate in existing (sub-optimal) market

The emphasis is now on models which can provide revenues to repay investors, rather than those designed to attract substantial grants.

This is driven by technology, not just politics

We are likely to see more and more ESCO-type models emerging

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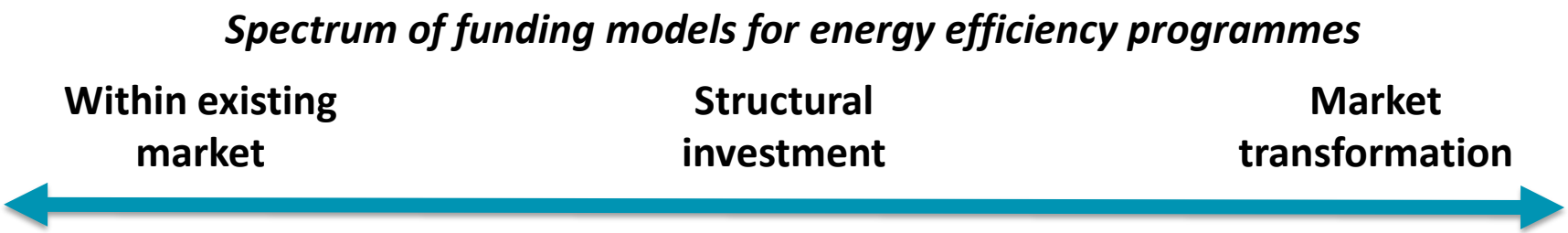
Spectrum of funding models for energy efficiency programmes



- Switching (incentives)
- Procurement savings

Marketing investment for utilities

- Energy efficiency projects (e.g., ECO-funded)

Benefits to occupants only

- Renewable projects with managed ROI (FIT/RHI)

Benefits to occupants and investors

- Local energy service and supply companies

More efficient market outcomes for all

Historically most retrofit projects fall in this area

More varied funding sources

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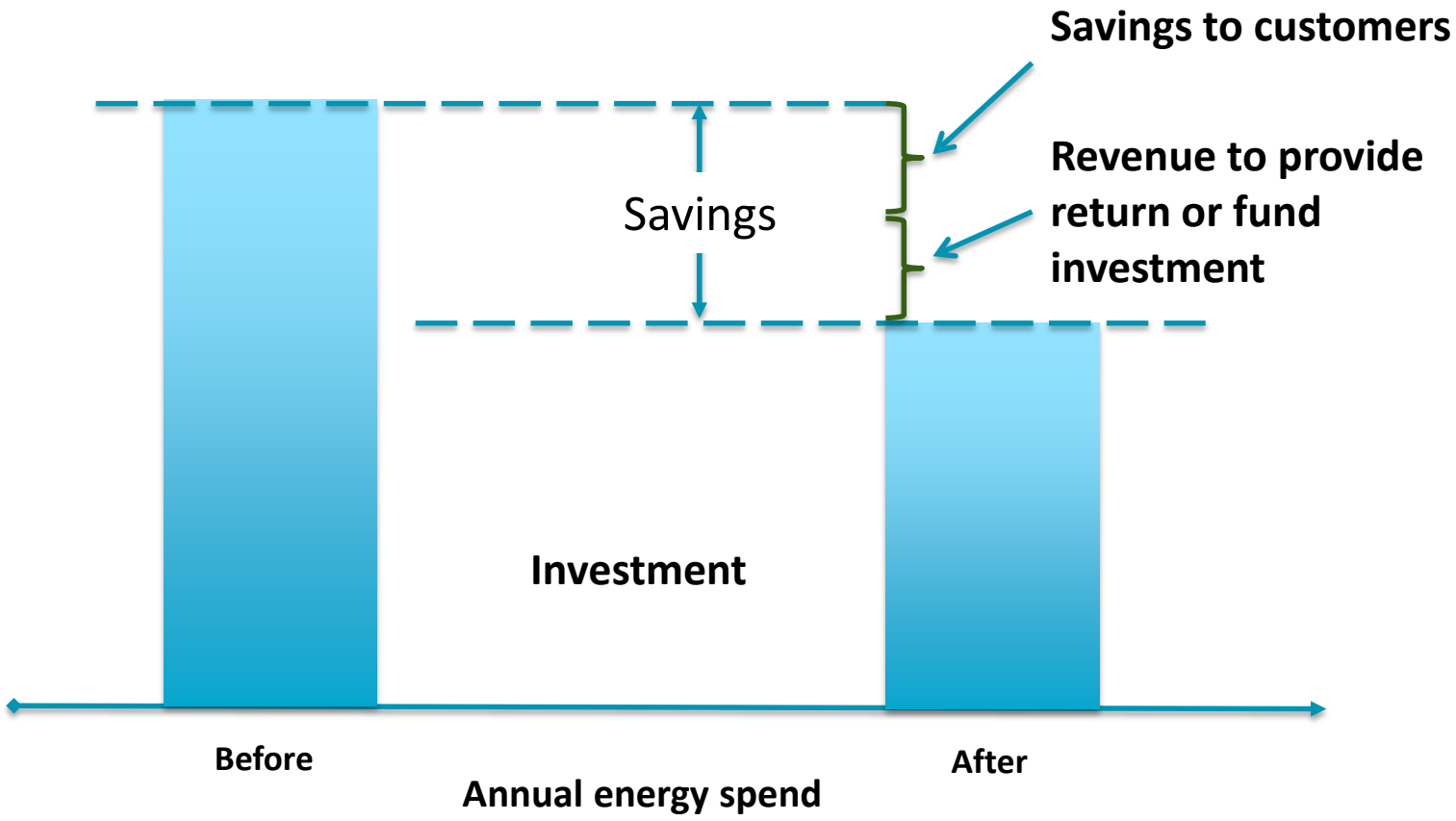
The principles of an ESCO are simple



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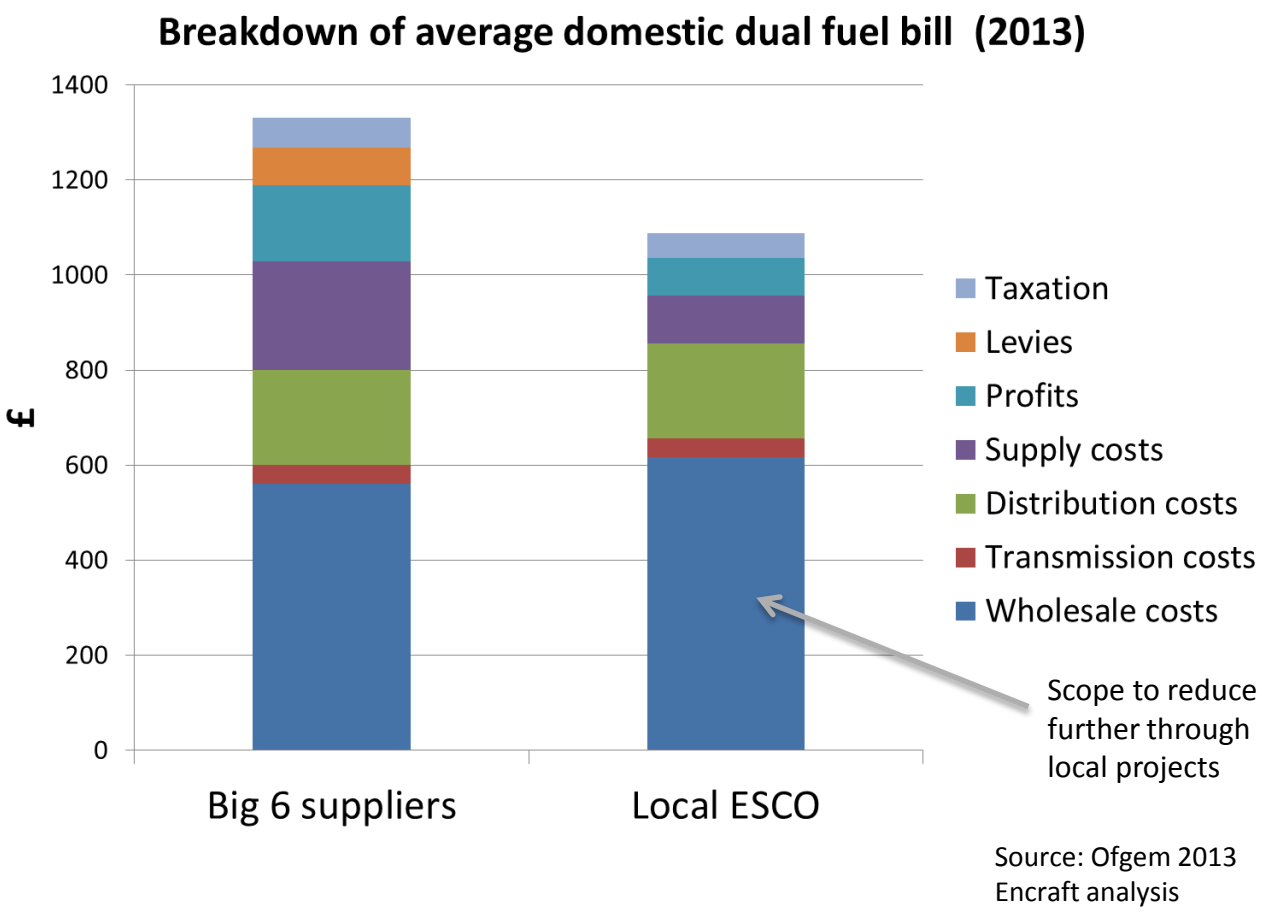
…but in practice there are lots of challenges (especially in housing)

- **Measurement and verification of savings**
  - weather
  - occupants
  - fuel prices
  - other investments
- **Asset ownership**
  - Energy market vs investment market competition
- **Consumer protection**
  - Consumers, producers or investors
- **Variety**
  - Every building and location has different economics

The solution is often a local ESCO

- A more cost effective approach to energy purchasing
- An investment vehicle for implementing energy efficiency measures
- **Controls bills so can recover investment**
- Can integrate existing assets into financial structure
- Supported by sensible monitoring and verification (ICP)
- Built on local trust and understanding



Source: Ofgem 2013
Encraft analysis

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A step by step approach can manage risk

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	Type 1	Type 2	Type 3
Typical activities	• Switching • Advice • Grants for insulation	• Renewables projects (FIT/RHI) • District heating • LED lighting	• Energy supply • Energy system optimisation via investments
Essential features	• Dedicated staff • Facilitation	• Clear revenue stream • Defined asset base	• Energy supply license
Typical scale	• Area to regional scale	• 20-250 homes • 1-5 renewables projects • Fixed geography	• Minimum 10,000 customers or commercial

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Geography often determines the best type 2 ESCO opportunities

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District heat

- Birmingham DEC
- Northampton Waterside
- DECC HNDU

High density housing

- Tower blocks
- Sheltered housing
- Care homes
- Lancaster co-housing

Renewables

- Community energy projects
- Solar, wind, hydro, biomass (AD)
- EIGG Electric
- BWCE, CEW

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There is still considerable funding around for well-organised and determined projects

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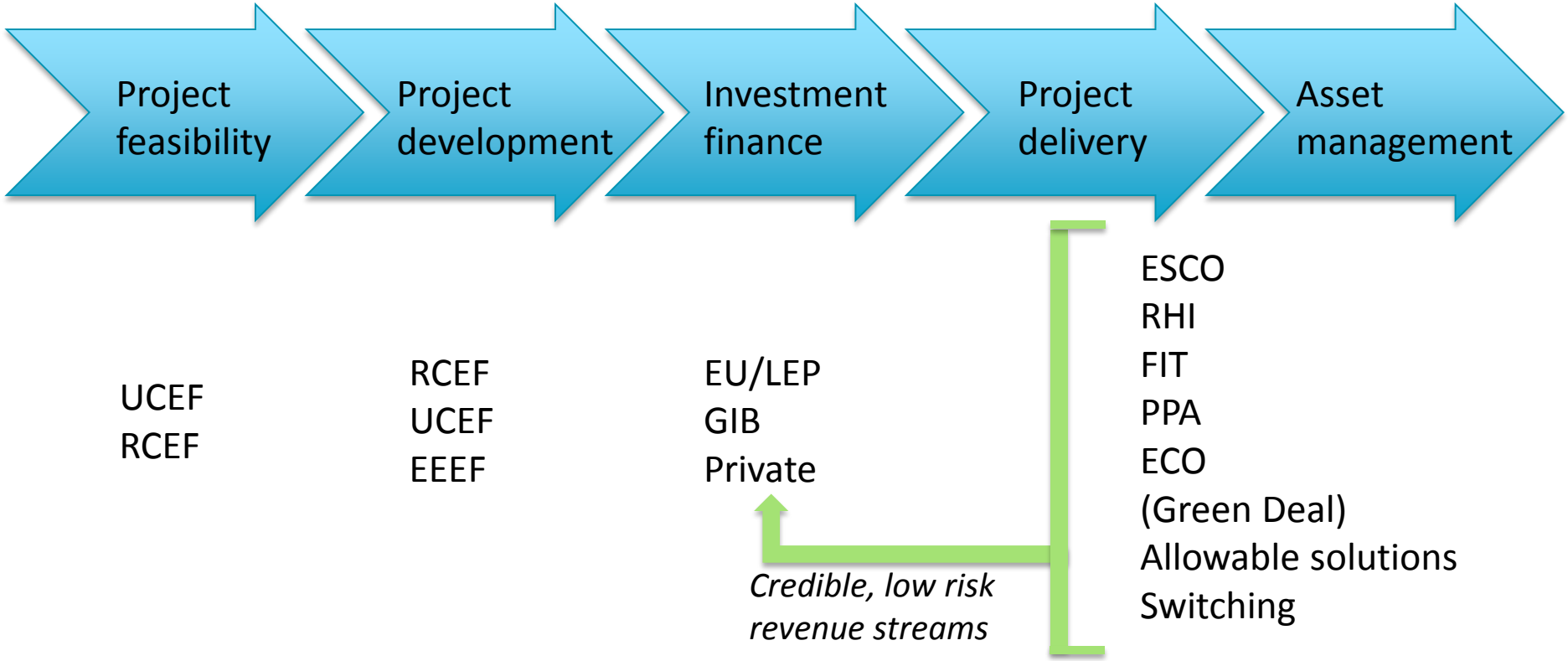
Local objectives and needs



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City and region-wide initiatives provide sensible vehicles to channel funding

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Independent models

- Community Energy Solutions CIC

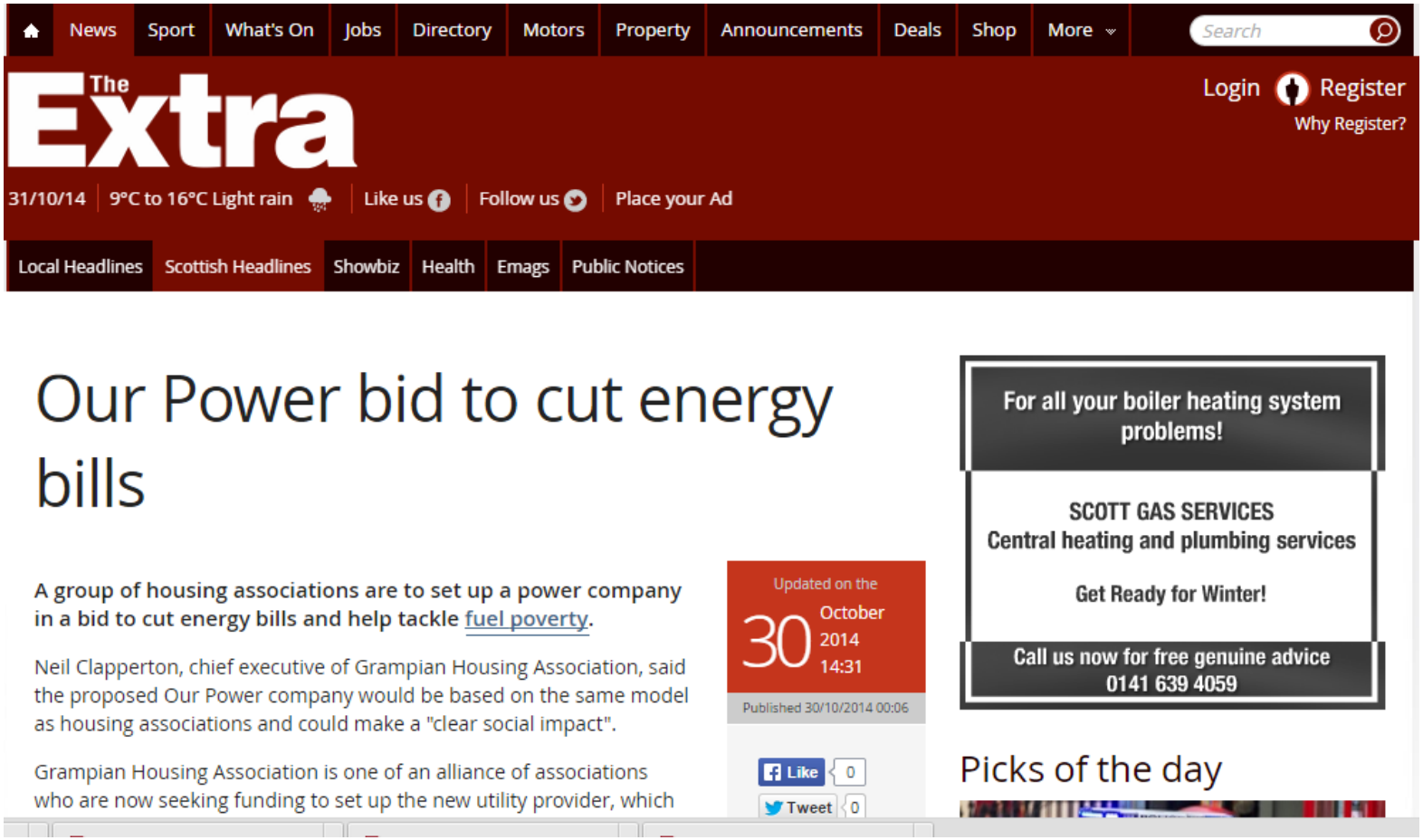
Outsourced to energy provider or similar

- Birmingham Energy Savers
- Warm Up North
- RE:NEW
- Northamptonshire/BG Partnership

Key success factors

- Sustained focus
- Specialist expertise
- Flexibility
- Responsiveness
- Local leadership
- Local ownership
- Local supply chain

But local energy supply companies are the future



More information

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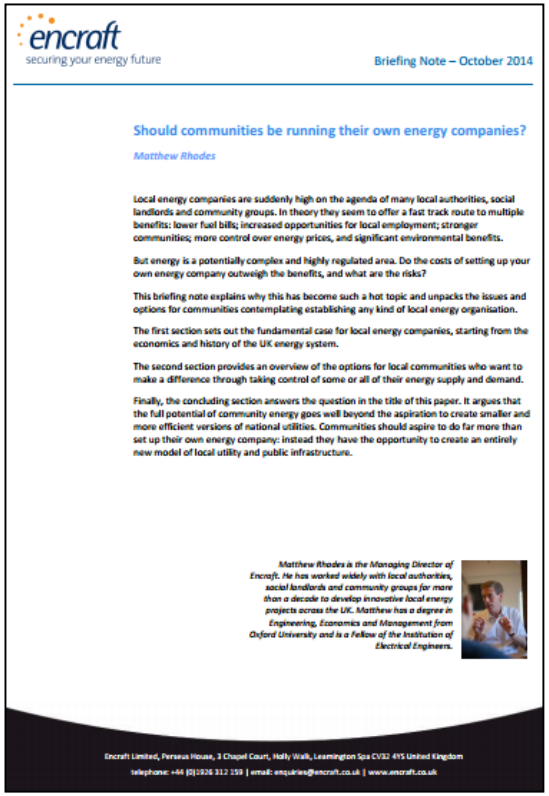

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Briefing Note – October 2014

Should communities be running their own energy companies?

Matthew Rhodes

Local energy companies are suddenly high on the agenda of many local authorities, social landlords and community groups. In theory they seem to offer a fast track route to multiple benefits: lower fuel bills; increased opportunities for local employment; stronger communities; more control over energy prices, and significant environmental benefits.

But energy is a potentially complex and highly regulated area. Do the costs of setting up your own energy company outweigh the benefits, and what are the risks?

This briefing note explains why this has become such a hot topic and unpacks the issues and options for communities contemplating establishing any kind of local energy organisation.

The first section sets out the fundamental case for local energy companies, starting from the economics and history of the UK energy system.

The second section provides an overview of the options for local communities who want to make a difference through taking control of some or all of their energy supply and demand.

Finally, the concluding section answers the question in the title of this paper. It argues that the full potential of community energy goes well beyond the aspiration to create smaller and more efficient versions of national utilities. Communities should aspire to do far more than set up their own energy company: instead they have the opportunity to create an entirely new model of local utility and public infrastructure.

Matthew Rhodes is the Managing Director of Encraft. He has worked widely with local authorities, social landlords and community groups for more than a decade to develop innovative local energy projects across the UK. Matthew has a degree in Engineering, Economics and Management from Oxford University and is a Fellow of the Institution of Electrical Engineers.

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