

**APSE Scotland Renewables and  
Energy Efficiency Advisory Group,  
26 November 2014**



# **Can local authorities be energy utilities?**

**Mark Bramah, Director of APSE  
Energy**



# 1. BACKGROUND

# APSE Energy - Our Vision



“The vision is to form an effective collaboration of a large number of local authorities to enable and facilitate the local municipalisation of energy services. **By this we mean the public and community, as well as private, ownership and managerial control of local energy generation, distribution networks and delivery of energy efficiency works.** Local authorities working together in this way would have great influence and would be able to deliver economies of scale in green energy to promote economic growth and combat fuel poverty.”

# The Holy Grail



# History of the Energy Market



1881

The world's first public electricity supply company is created for **Godalming in Surrey**. Electricity was generated by a water wheel on the **River Weyand**. This was used to power street lighting and lights in local shops and businesses.

1882

**Electric Lighting Act** allowed individuals, companies or local authorities to establish their own electricity supply systems.

Emergence of distributed energy systems

1880s – 1920s

1948

**UK electricity supply industry nationalised**. All private and community-owned electricity generation and supply utilities were replaced with the **British Electricity Authority** (responsible for all electricity generation) and fifteen **Area Electricity Boards** (responsible for supplying customers).

Note: Even today, the **Big Six** energy companies reflect the shape of the **Area Boards**, whose regions they inherited at privatisation.

1920s – 1980s

Centralisation and nationalisation

1920  
750,000 electricity customers

1926  
Government created the **Central Electricity Board** to standardise electricity supply across the UK

1926-1938  
The **CEB** brought together the various local electricity grids and established a nationwide 132,000 Volt, 50 Hertz network – the **'National Grid'**.

1938  
9 million electricity customers.

1990 – 1999

Gradual introduction of supply competition. At the point of privatisation only the largest gas and electricity customers were able to choose their supplier. The thresholds for switching gas and electricity supplier were progressively lowered and competition expanded until in 1999 all types of gas and electricity customers were finally able to freely select their energy supplier.

Privatisation and competition

1980s – 1990s

1986 – 1995  
Privatisation of the energy industry, starting with **The British Gas Corporation** in 1986. Electricity was privatised in 1989, when power generation was divided between **National Power**, **Powergen** and **Nuclear Electric**. The **AEBs** were renamed **Regional Electricity Companies (RECs)** and privatised in 1990.

**National Grid** was created as a standalone entity in 1990 but remained owned by the **RECs** until the company was floated in 1995.

1995 – 2002

Emergence of the **'Big Six'** vertically integrated energy companies.

2001 – 2004

**Market reforms**. In response to a perceived lack of price competition and few new entrants in energy supply, **Ofgem** introduced a set of reforms to the wholesale energy trading market in 2001, the **'New Energy Trading Arrangements'**. This was followed by the **'British Electricity Trading and Transmission Agreements'** in 2004, which created a single energy market covering the whole of the UK.

1990s – today

Consolidation and the re-emergence of distributed energy

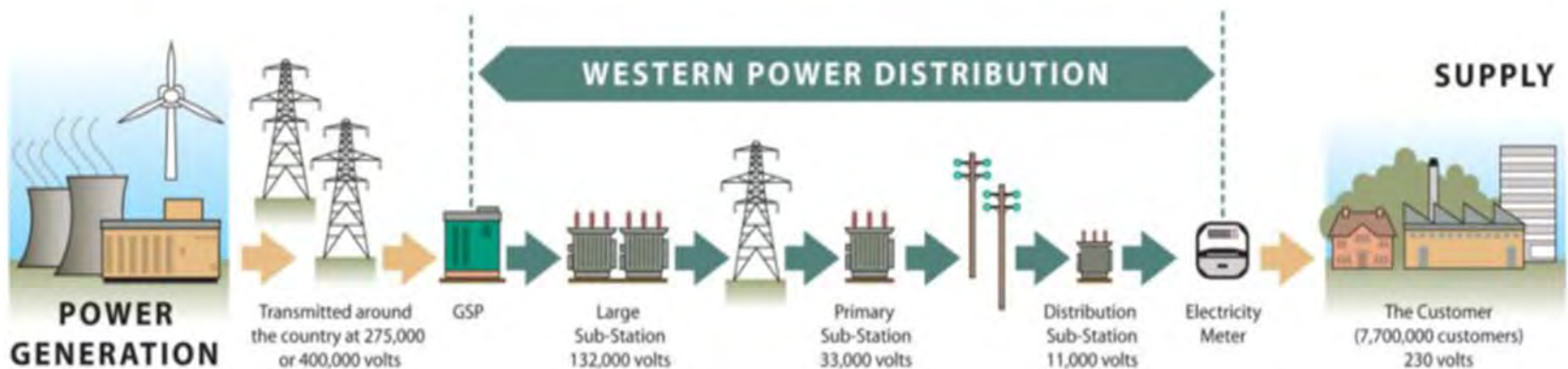
1990s – today

Greater focus on energy efficiency and the environment. In 1994 the **Energy Saving Trust** and **Ofgem** introduced **Energy Efficiency Standards of Performance**, which required energy suppliers to support their customers with energy efficiency measures. This programme has evolved into what is now the **Energy Company Obligation**.

2007: **EU set targets for a 20% reduction in CO<sub>2</sub>** (versus 1990 levels) and 20% of energy to come from renewable sources by 2020.

2008: **Climate Change Act**, which committed the UK government to an 80% reduction in CO<sub>2</sub> emissions by 2050

# The Energy Industry in the U.K.



## Energy suppliers generate electricity or import gas to sell to customers

- Competitive
- Prices not heavily regulated
- Own mostly generation assets
- The "Big Six" supply both electricity and gas

## Transmission operators move electricity over long distances at high voltages or gas at high pressures

- Regional monopolies
- Electricity: National Grid Electricity Transmission
- Gas: National Grid

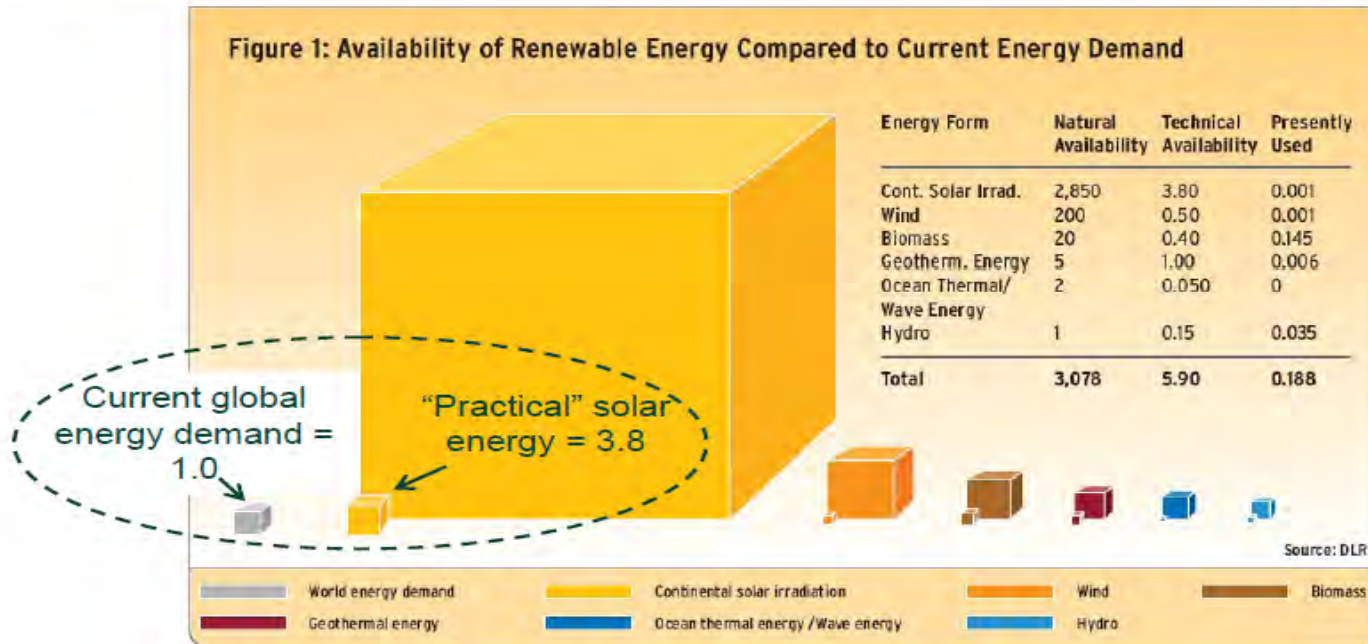
## Distribution Network Operators (DNOs) own the infrastructure that move electricity at medium voltages from transmission networks to consumer premises.

# Availability of Solar Energy



Solar is the most abundant of all renewable energy sources

Figure 1: Availability of Renewable Energy Compared to Current Energy Demand

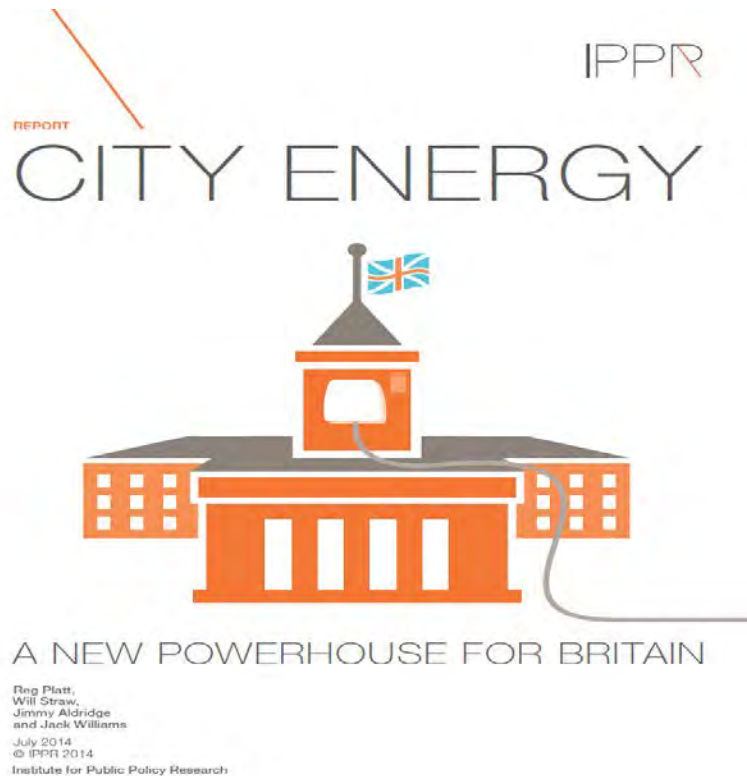


Rear cubes: The natural availability of renewable energy is extraordinarily large. Front cubes: The technically available energy in the form of electricity, heat and chemical energy carriers exceeds the present-day energy demand (grey cube, left) by a factor of six.

Solar energy can supply almost 4 times total current global energy demand (including only solar energy that is practical to harness)

Source: David Owen, Solar Energy U.K.

# IPPR Report July 2014



## It is time for the cities to act

The cities want more powers from national government so that they can become powerhouses of the British economy. At the same time, the energy system is being radically transformed by the need to decarbonise and the emergence of new, clean energy technologies.

There is a clear opportunity for cities to be at the forefront of the changes that are happening in the energy sector. They can achieve this by engaging in energy supply and investing in low-carbon infrastructure. Through these actions cities can boost their local economies, demonstrate that they have the ingenuity, skills and capacity to take on more powers, and raise their influence at the national level.





# Ambitious councils



PETERBOROUGH



Blue Sky  
Green Energy

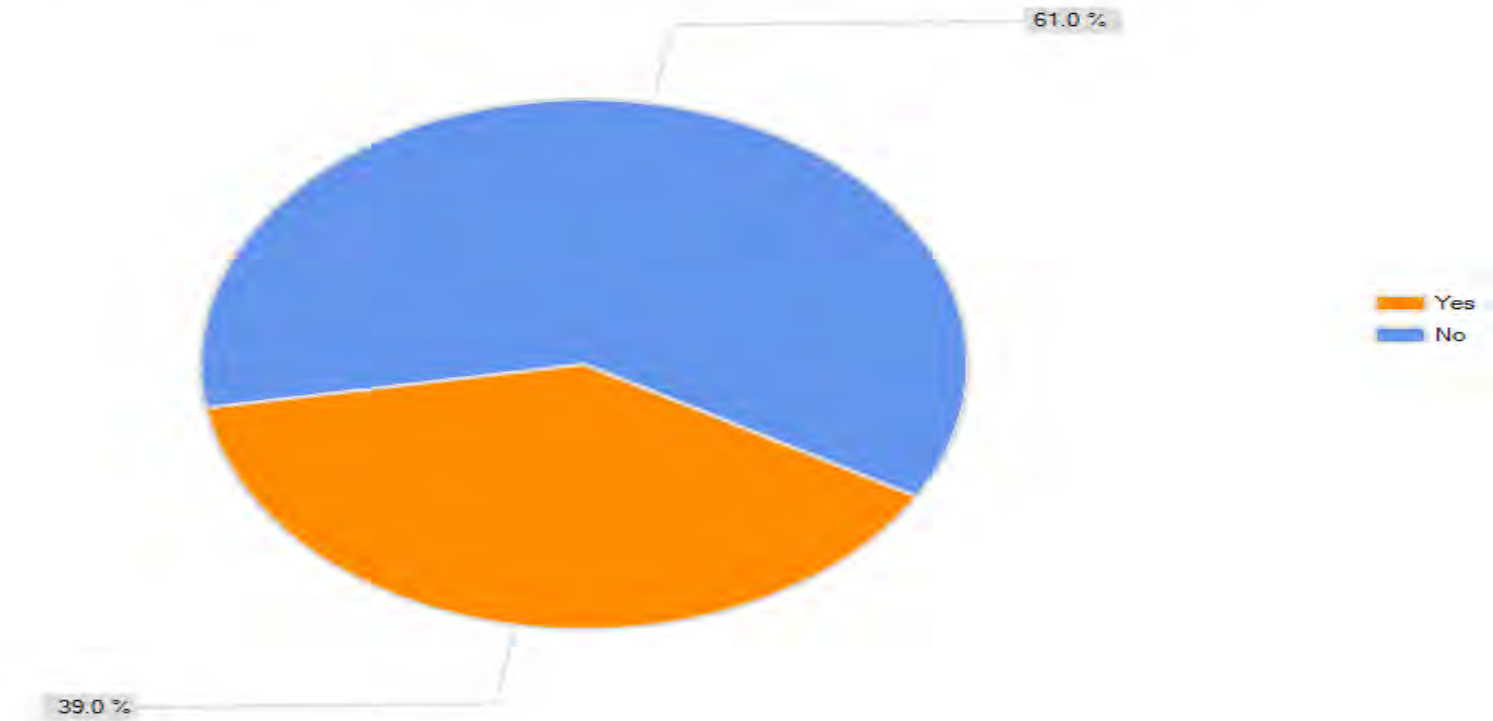


## 2. BARRIERS AND POWERS

# Survey on the barriers to local authority involvement in municipal energy schemes



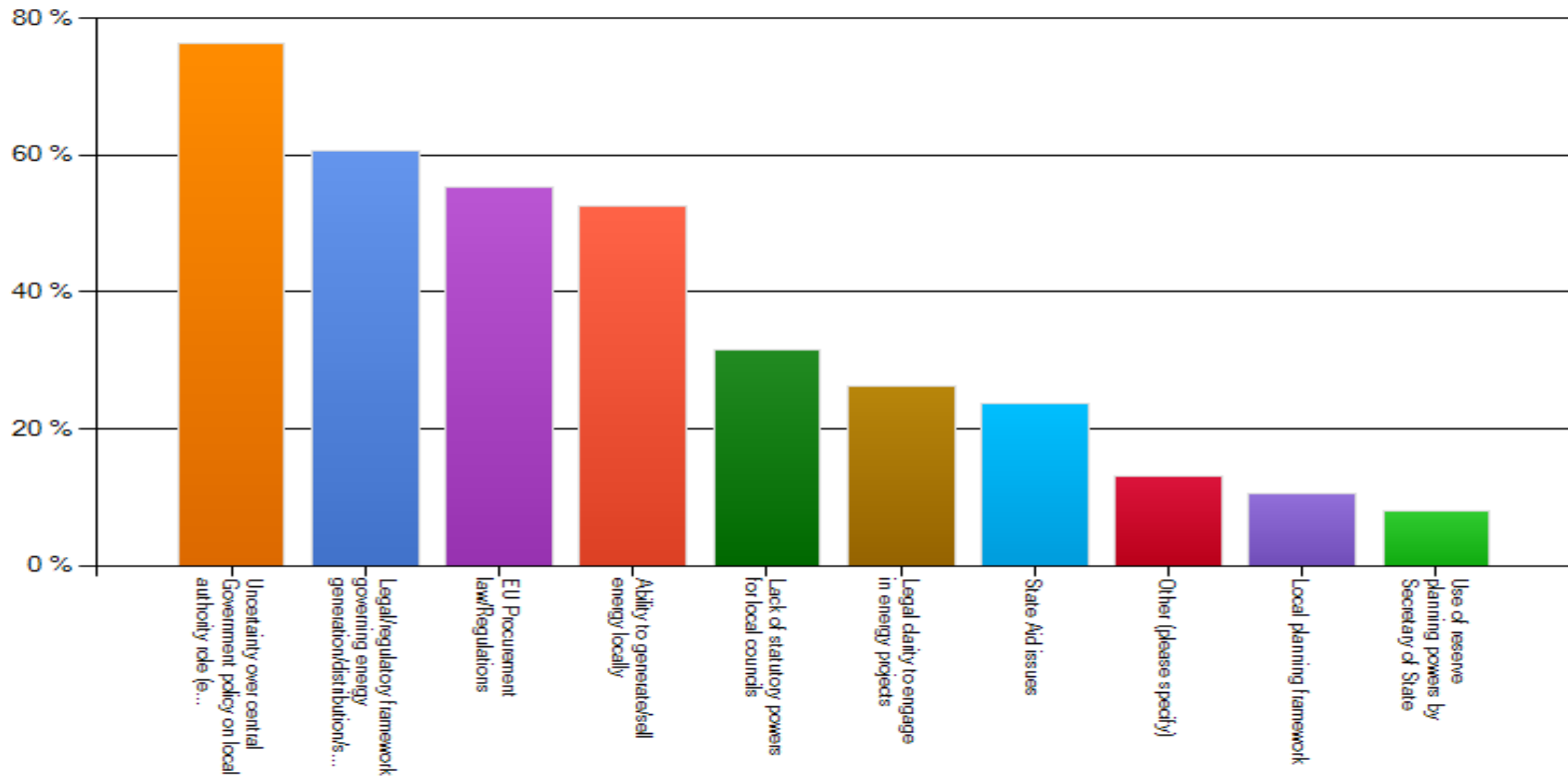
Do you feel that local authorities have sufficient statutory/legal powers available and legal certainty to undertake local energy projects?



# Survey on the barriers to local authority involvement in municipal energy schemes



What in your view are the main statutory/legal barriers facing local authorities ? (Choose up to 5 options)



# Powers for local government



## Section 20 of the Local Government in Scotland Act 2003

- Section 20(1) provides that a local authority "has the power to do anything which it considers is likely to promote or improve the well-being of (a) its area and persons within that area; or (b) either of those".
- Section 20(3) provides that this power can be exercised in relation to or for the benefit of (a) the whole or any part of the area of the Local Authority; (b) all or some of the persons in that area.

## Local Authority Trading

- Section 8 of the LGISA2003 amends the Local Authorities (Goods and Services) Act 1970 so that the external agreements to which it applies relate only to trading operations, and defines those trading operations as those for which, under proper accounting practice, the local authority must keep trading accounts.

## .Other powers

- Section 69 of the Local Government (Scotland) Act 1973 provides that a local authority '*shall have power to do anything ... which is calculated to facilitate, or is conducive or incidental to, the discharge of any of their statutory functions*'.
- The Local Government Investments (Scotland) Regulations 2010 permit local authorities to make investments subject to them gaining the consent of Scottish Ministers. The Regulations came into force on 1 April 2010.
- Section 170A(3) of the Local Government (Scotland) Act 1973 as amended by the Electricity Act 1989 and Schedule 15, paragraph 13 of the Environmental Protection Act 1990 allows Scottish local authorities to sell electricity produced in association with heat and waste only.
- The Sale of Electricity by Local Authorities (Scotland) Regulations 2010 (2010 No.1908 (S.4). Sale of renewable electricity.

# What is an Energy Services Company (ESCO)?



An entity which provides energy and related services (usually for specific projects but may also provide more general energy efficiency/energy management services)

- Designs, builds, operates and maintains a facility
- Offers performance and operating guarantees
- May also guarantee energy cost savings/CO2 emissions reductions
- May sit in the private sector, or in the public sector or be a public private partnership (PPP)

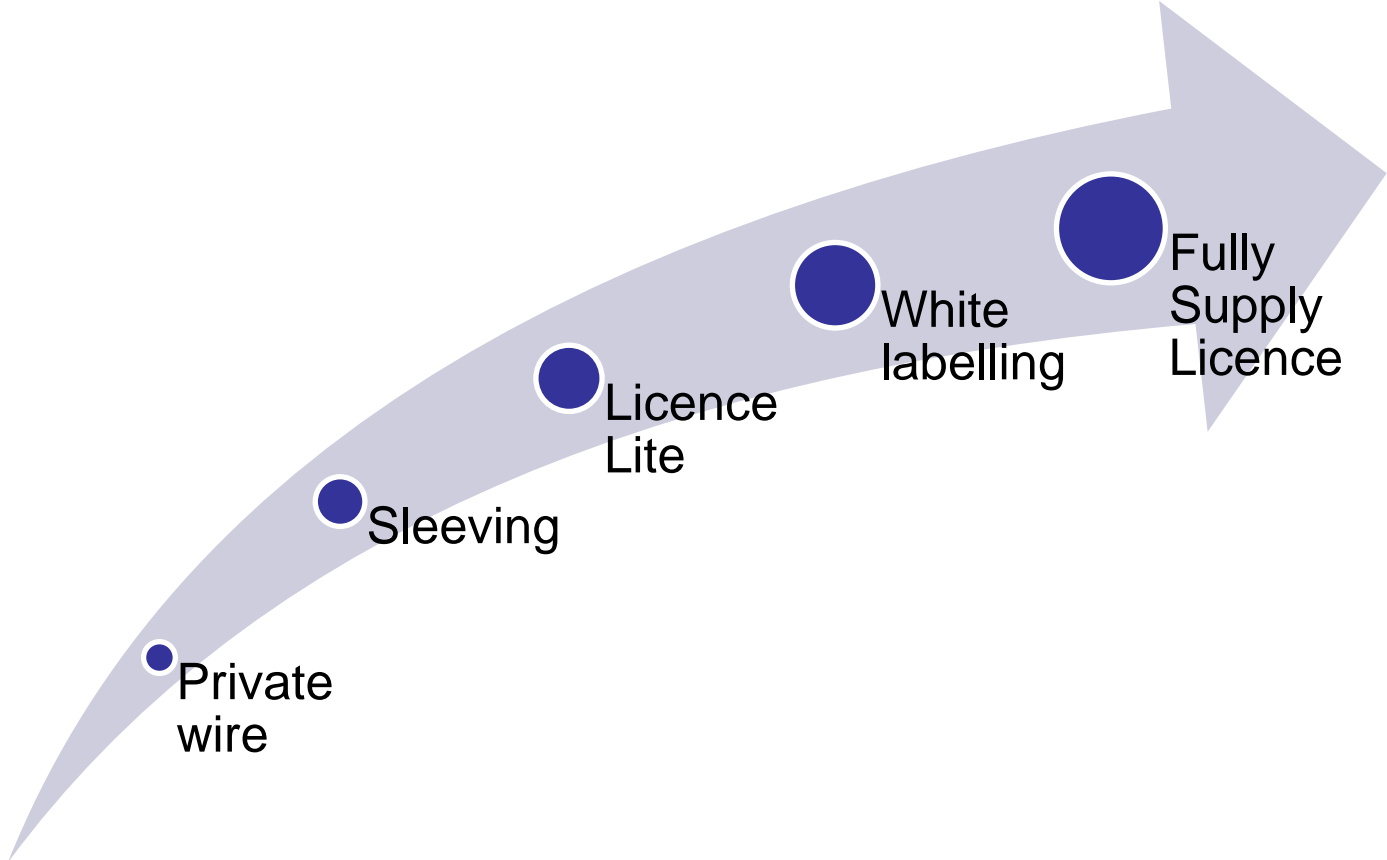
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# 3. OPTIONS FOR ENERGY SUPPLY



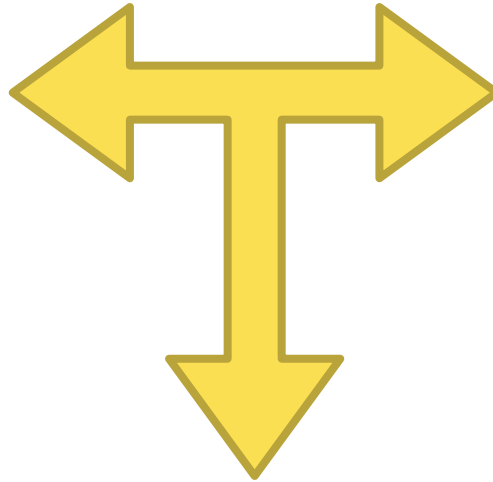
# Options for selling electricity



# Private wire network



Electricity Generation facility



Consumer

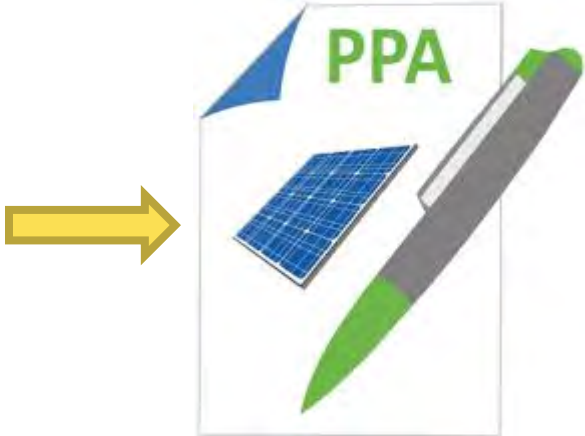


DNO

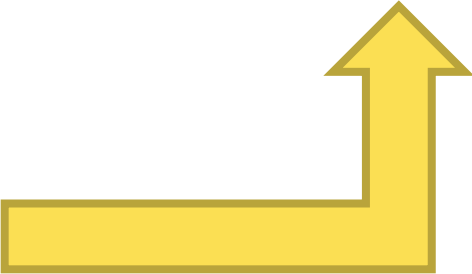
# Third party netting or sleeving



Third party generator



Consumer



# License Lite



Third party generator



GREATER  
**LONDON**  
AUTHORITY

Electricity supply  
license



Consumer



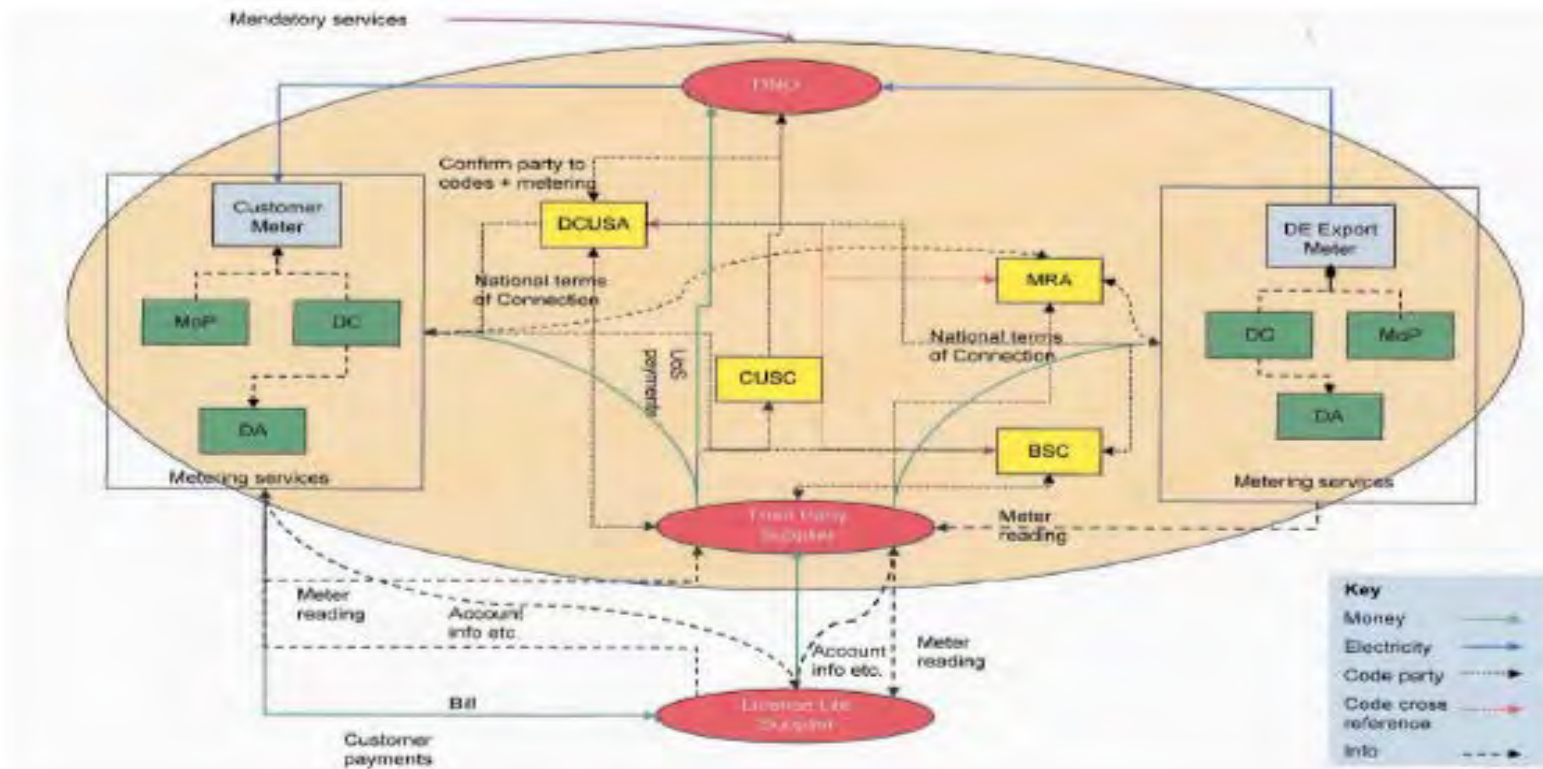
Fully licensed supplier

# Development of Licence Lite



- Nov 2006 – DECC/OFGEM Review distributed energy generation.
- May 2007 – Energy White paper “*meeting the energy challenge*”.
- Dec 2007 – Consultation on flexible market and licencing arrangements.
- June 2008 – Offtake arrangements and market access for small distributed energy generators.
- June 2008 – Further consultation on licensing and flexible market arrangements.
- Feb 2009 – Final ‘Licence Lite’ proposals and statutory consultation.
- March 2009 – Electricity supply licence modified to permit ‘Licence Lite’.
- March 2013 – GLA applies to OFGEM for licence Lite
- March 2014 – OFGEM call for evidence on ‘White label providers’.
- 2015 – GLA becomes Licence Lite supplier ????????????

# Licence Lite contractual matrix headache



# “White labelling”



M&S  
Energy

Unlicensed company



Licensed supplier





# Virtual Energy Company



## Option 1: Full Service Energy

- You choose what to offer, to whom, and at what price; we provide all the services you need to deliver your offer

## Option 2: Customer Partnership

- The same as option 1, except you take responsibility for frontline customer service and written communication with customers

## Option 3: Your own licence

- You apply for your own licence (full licence or Licence Lite) and we provide any services you need, including power procurement and trading



# OVO Community energy partnerships



Monday 10th November 2014, Hastings:  
OVO Energy today announced its second 'OVO Communities' partnership, with Community Energy South, as part of its ground-breaking plan to democratise the energy market. The news follows just one month after OVO revealed plans for its first partnership with Plymouth Energy Community.

"We are planning to form OVO Energy's first 'Ovo Communities' partnership. OVO Communities is an 'out of the box' solution for communities which want to cut out the middle man and become an energy company themselves – from supply and generation, to smart technology and energy efficiency. Once the partnership is confirmed, we will be able to offer the people of Plymouth the opportunity to buy energy from us, ensuring that we have tariffs that best suit our city."



# Local authority Energy supply company



- Customer base.
- Generation capacity.
- Balancing and settlement.
- Risk.
- Competition and state aid.
- Reaction of the big six.
- Local Tariff.
- Economic development and regeneration.

# Building a customer base



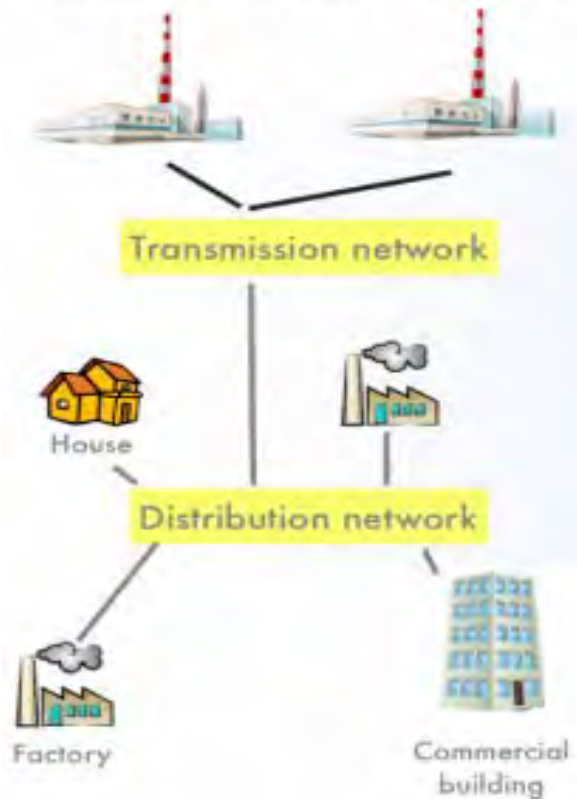
# Building generation capacity





## **4. WHERE THINGS MIGHT BE HEADING?**

# Yesterday Centralized Power



# Tomorrow Clean, local power



# 2015 Game Changer?



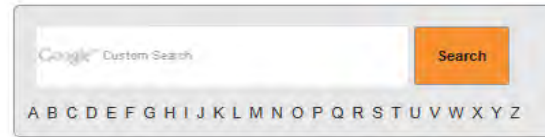
- Plymouth Energy Community & OVO Energy
- Greater London Authority – Licence Lite.
- Nottingham Energy Supply Company – Full supply licence (177,000 households)
- Our power – Industrial and Provident Society (9 housing Associations, local authorities, community organisations 133,000 potential customers)

# Nottingham Energy Supply Company



**Nottingham**  
**City Council**

A safe, clean, ambitious Nottingham. **A city we're all proud of**



You are here → [Homepage](#) → [Job Opportunities](#) → [Join Nottingham City Council](#) → [Senior Vacancies](#) → [Head of New Energy Company with](#)

## Head of New Energy Company with Energy, drive, flair and much more .....

**Salary £57,288 - £66,762**

A dynamic opportunity has arisen to lead Nottingham's new energy supply company in a city which is a great place to live, work and play. A wholly owned Local Authority energy supplier, this new energy supply company will supply gas and electricity locally and nationally.

For this new and hugely exciting venture, we need an individual with exceptional vision, a strategic thinker with proven commercial experience in the energy sector, to take this start-up business from strength to strength. We are looking not only for exceptional business acumen and sales capability, but also an inspirational leader.

You will lead the new energy company in a highly competitive and commercially driven sector not only in Nottingham but across the U.K and for this you will need significant experience in the energy sector. You will have a natural flair for networking and the ability to represent the company on a local and national level and be responsible for ensuring that the company operates within the energy legal framework and that it remains commercially viable.

Now is a truly fantastic time to join our energy company - we offer an exciting opportunity to join an ambitious company seeking to penetrate and challenge the electricity and gas markets. This is a UK first and is your opportunity to work with Nottingham to develop a unique company and for the right energy professional this is a once in a life time opportunity.



# Our Power – Community Energy Scotland



THE INDEPENDENT MONDAY 17 NOVEMBER 2014



Marriott  
REWARDS

BE PART OF IT AND  
EARN YOUR FREE NIGHT

JOIN IN

NEWS VIDEO PEOPLE VOICES SPORT TECH LIFE PROPERTY ARTS + ENTS TRAVEL MOI

UK / World / Business / People / Science / Environment / Media / Technology / Education / Images / Obits

News > Business > Business News

## Power to the people: a revolution in Britain's energy market



Councils and social housing landlords unite to challenge dominance of Big Six

[www.apse.org.uk](http://www.apse.org.uk)

*“A consortium of eight Scottish housing associations and a renewable energy charity is close to signing a financing deal which would allow it to supply power to tens of thousands of households. Last month, the independent supplier Ovo signed a deal with Plymouth council that will allow the city to become the first in the UK to provide its residents with energy. It believes that as many as one million customers could be served in the next few years by local authorities with the company’s help in setting up as energy providers. By 2020, it hopes that as many as 500 partnerships could be formed across the country.*”

*The Scottish consortium is well on the way to securing a licence to operate from regulator Ofgem and plans to launch next year. It already includes the Berwickshire Housing Association and the West of Scotland Housing Association and is in discussions with a further 27 social housing landlords, representing more than 100,000 homes.”*

# Looking to the future



- Energy security
- Increased distributed energy capacity
- Smart Grid technology.
- Energy storage.
- Local grids.
- Devolution.
- SMART Cities/Combined authorities.



# 5. JOIN THE ENERGY REVOLUTION

# APSE Energy – House of Commons launch 11 June 2011



- Over 60 people from a range of organisations including member local authorities, DECC, TCPA, LGA, Climate U.K. IPPR attended the launch.
- Addressed by Rt. Hon Ed Davey M.P. Secretary of State for Energy and Climate Change and Dr. Alan Whitehead M.P. the Chair of the All-party Parliamentary Renewables and Sustainable Energy Group (PRASEG).



# Aims



The aims of **APSE energy** are to support councils to deliver the local municipalisation of energy services and in doing so:

- address social objectives and deliver community benefits, such as a reduction in fuel poverty and increases in jobs and skills;
- save money and make money for local authorities to safeguard local services.



# Aims

- People
- Poverty
- Pounds

# Members of APSE Energy



1. Aberdeen City Council
2. Barnsley Metropolitan Borough Council
3. Bradford City Council
4. Bridgend County Borough Council
5. Buckinghamshire County Council
6. Cardiff City Council
7. City of Edinburgh Council
8. Cumbria County Council
9. Darlington Borough Council
10. Doncaster Metropolitan Borough Council
11. Derbyshire County Council
12. Dudley Metropolitan Borough Council
13. East Dunbartonshire Council
14. East Riding Council
15. Flintshire County Council
16. Gedling Borough Council
17. Guildford Borough Council
18. Knowsley Metropolitan Borough Council
19. Lancaster City Council
20. Middlesbrough Council
21. Newcastle City Council
22. Nottingham City Council
23. Nottinghamshire County Council
24. North Ayrshire Council
25. Northumberland County Council
26. Oxford City Council
27. Peterborough City Council
28. Portsmouth City Council
29. Preston City Council
30. Reading Borough Council
31. Stevenage Borough Council
32. Southampton City Council
33. South Lanarkshire Council
34. Stockton-On-Tees Borough Council
35. Swansea City and County Council
36. Warwickshire County Council
37. Wolverhampton City Council
38. York City Council

# APSE Energy Events and activities



**apse** Energy Scotland official launch and workshop

## Distributed Energy: An opportunity for Councils

APSE Energy Scotland launch and workshop, taking place at South Hall, John McIntyre Conference Centre Campus, Edinburgh, Thursday, 27 November 2014



[www.apse.org.uk](http://www.apse.org.uk)

**apse** energy

## APSE Energy Seminar

From industrial legacy to future energy: Transforming the use of former industrial land for energy projects

Free event for members of APSE Energy and the Derbyshire and Nottinghamshire LAEP





Image:  
Hamburg Energy Hill

A working seminar organised by APSE Energy in partnership with the Town and Country Planning Association SPECIAL project and the Nottinghamshire and Derbyshire Local Authority Energy Partnership (LAEP)

Thursday 3 July 2014, County Hall, Matlock, Derbyshire

Supported by:




**apse** energy

## Social finance for solar energy


Approaches to financing large scale solar pv for local authorities and communities

A half day workshop organised in partnership with Gen Community and British Gas Solar, Thursday, 30 October 2014

Centrica British Gas, 1600 Parkway Court, John Smith Drive, Oxford, Oxfordshire OX4 2JY



Supported by:







# Contact details

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INVESTOR IN PEOPLE



ISO 14001  
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ISO 9001  
REGISTERED FIRM

**GB 11132**



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**GB 14074**