

Hosted by LB Islington  
Islington Town Hall  
Upper Street, London, N1 2UD



**LBEG Autumn Meeting  
Tuesday 16<sup>th</sup> October 2018**

Kindly sponsored by Connected Energy



**Minutes**

**Attendees**

<b>Name</b>	<b>Organisation</b>
Neil Luscombe	Brent
Julie Granger	Camden
Nigel Dent	Connected Energy
Risa Wilkinson	Ealing
Sarah Fletcher	GLA
Celine Vachot	Greenwich
Shaun Spencer	Hackney
Anis Robinson	Hammersmith & Fulham
Saeed Atlas	Harrow
Priti Vagadia	Harrow
Reena Govind	Harrow
Graeme Low	Islington
Rodrigo Matabuena	Islington
Andy Morgan	Kent County Council (LASER)
Jacob Adekunle	Redbridge
Martin Keane	Royal Hospital for Neuro-Disability
Alex Morgan	Salix
Ed Clark	Salix
Rachael Mills	SE <sup>2</sup>
Ian Watts	Sutton
Georgina Penfold	The Icon
Beata King	Transport For London

## Apologies

Maria Yashchanka	Greenwich
Kal Saini	Hammersmith & Fulham
Gonzalo Jimenez	Kensington & Chelsea
Richard Neal	Merton
Chris Little	Westminster

All the presentations from the meeting are available to download at:  
<https://www.lbeg.org.uk/meetings/our-last-meeting-16th-october-2018/>

### 1. LBEG update

#### Saeed Atlas, LBEG Chair

Thank you for all of those who have been able to pay membership fees: our bank balance is improving but we still need further support – it's not too late to pay if you are able to. LBEG will be writing to Borough CEOs to promote the network and encourage engagement: Borough officers will be notified and given the option to opt out. We could also look at widening our membership, perhaps to organisations like the GLA, EST and Salix. We are also promoting LBEG to the Harrow MP, who maybe able to attend our next meeting and/or host a meeting in Parliament for us.

### 2. Regional update

#### Saeed Atlas, LBEG Chair

The London Environment Strategy is worth a read if you haven't done so already: the sections on climate change and mitigation are particularly interesting. The Strategy also lists a number of funding opportunities that LAs can benefit from, including the Energy Efficiency Fund, Energy for Londoners, Greener City Fund, Urban Forest, Community Engagement, Boiler Cashback, Better Boilers and Solar Together. Saeed is planning to meet the GLA soon to discuss.

- Q1: Why has a new target been set when the previous one hasn't been met yet? The GLA will have its own version of a carbon budget to monitor.
- Q2: Who's going to deliver the strategy? It's important that the GLA attends LBEG meetings for updates and to discuss how we can work together.

### 3. National policy update

#### Georgina Penfold, The ICON

#### 3.1 Proposed Changes to Electricity Network Charging

- Network access charges (for either demand or generation) are currently on a first come first served basis, yet not all sites are using all their capacity or they have more capacity than they have permission for. Transmission costs are expected to increase by 50% in the next 5 years.
- Ofgem is consulting on revising how distribution and network costs are calculated and passed through to consumers: the network is constrained so we either need to invest or change how we use it. If the outcome will require a significant Code Review then this will be end of 2018/early 2019, with options developed through 2019.
- The options Ofgem have put forward are:
  - i) Firmness: connection agreed and no-one can mess with it. Might be willing to reduce demand with notice (therefore becoming a flexible connection (for less money))

- ii) Time profile: similar to the firm option, but flexible only within fixed timescales (eg when your building is closed)
  - iii) Fixed duration: limited agreement (eg 15 years) then renegotiated – good for leaseholders.
  - iv) Short-term access – only connected for a limited time (eg temporary installation)
  - v) Shallow access: to do with generation
- Forward looking charges – for example you pay to expand the site, even if lots of sites benefit thereafter (socialise the cost). This could maybe on a capacity or consumption basis. It would also possibly mean the end of TRIADs (which we've become too good at!)
  - CMP274 Time of Use Tariff is coming c. 2021-2023. It will allow for 2 peaks (instead of the 3 winter peaks in TRIAD): one in the morning and one in the evening, Monday to Saturday (not Monday to Friday). This will hit for example breakfast clubs, gyms, leisure centres, etc.

### 3.2 New (Voluntary) Emissions Reporting Scheme

CRC goes next year. The private sector will have a streamlined reporting process through their financial returns to Companies House. For the public sector, BEIS has introduced a voluntary Emissions Reduction Pledge: it is likely that this will become mandatory post-Brexit with transport and Scope 3 added in. Don't let this monitoring slip – it's important!

### 3.3 Medium Combustion Plant Directive (and Specified Generators Regulations)

This is a European Directive to control CO<sub>2</sub>, SOX and particulates. It covers anything that burns – eg diesel back-up, CHP – from 1-50MWth. It applies to new plant from 20.12.18, which must be registered with the Environment Agency, and will apply to all existing plant above 5MW from 2024. The Directive requires you to monitor and report on emissions: urban targets are stricter than in rural areas. Everyone will have to comply, unless the system is properly only used for back up (<50hours/year)

### 3.4 BREXIT

Very little will change with regard to gas and electricity trading and carbon capture, even if there's no deal. The carbon floor price (as specified in the EU ETS) now flows into HMT: further details will be in the budget.

### 3.5 Unidentified Gas

Until last year, Ofgem kind of guessed how much gas was lost in the system and we all contributed. The introduction of a new computer system highlighted that the old calculations had been way out. A new method is being introduced (which will appear as a new line on gas bills) but the results are highly variable, and suppliers are having difficulty communicating about it. The suppliers, led by Total & Gaz Prom, are getting together to lobby Ofgem to stick with the old calculation method until the new method is improved. A task group is being set up.

### 3.6 Also look out for...

- Autumn budget (19<sup>th</sup> October)
- Environment Act ('autumn') – with new enviro watch dog post-Brexit
- Helm Review announcement (before 25<sup>th</sup> October) – could be pushed back a couple of weeks? (Check out the ICON webinar)
- Capacity Market Review (due 18<sup>th</sup> December)

### 3.7 You can sign up for weekly updates at [www.theicon.org.uk](http://www.theicon.org.uk)

Q1: Will the new energy efficiency scheme get rid of EPCs?

A1: It was in the consultation... there's not many drivers for improvements in the commercial sector (other than MEES). The options could be a streamlined energy and carbon report (to replace CRC) or DEC's (a visible sign of the efficiency of a

building in operation) or something new entirely (which may affect the public sector too).

Q2: What else do you know about carbon / energy reporting?

A2: It will be for listed companies and large undertakings, equivalent to ESOS. If you qualified for ESOS, it's likely that you'll qualify for reporting too.

Q3: Would the Time of Use tariff just be two bands in the winter (similar to DUOS)?

A3: Yes

#### 4. Clean Boiler Cashback

**Sarah Fletcher, GLA**

4.1 The Cleaner Heat Cashback (CHC) is the first scheme of its kind in the world aimed at the commercial sector. It's a £10m scheme targeted at SMEs that forms part of the Mayor's ambition to be zero carbon by 2050: it has both energy efficiency and air quality objectives.

4.2 To be eligible, the properties must be in London and the applicants must be SMEs who either own or rent the property (with responsibility for building maintenance or with permission from the landlord).

4.3 Boilers must replace working boilers to ensure additionality and be a minimum of 70kW. Existing gas, oil or LPG boilers must be at least 10 years old; coal and biomass boilers can be any age. Installation of renewable heating technologies are also encouraged.

4.4 Funding levels are as follows:

Old Technology	Replacement Technology	Cashback Level (% CAPEX costs)	AQFA level (% CAPEX costs)
<b>Gas/oil/coal/LPG boiler</b>	Gas boiler	30	35
	Solar thermal	35	40
	Heat pump		
	Heat network		
<b>LPG boiler</b>	LPG boiler	30	35
<b>Biomass boiler</b>	Heat pump	35	40
	Heat network		

4.5 Approved installers must be used. Two quotes must be obtained to ensure value for money (prices vary more in the commercial sector).

4.6 The cashback voucher lasts for 6 months, 12 months for GSHP due to the longer lead-in times.

4.7 Please help spread the word!

- Add details of the scheme to your own website
- Promote through social media
- Include in newsletters
- Distribute flyers
- Combine CHC with your own schemes (eg business grants, carbon offset funds)

The GLA can assist with text, leaflets, etc. Our delivery partner is the Energy Saving Trust

Q1: How long will it run for?

A1: Applications can be submitted until 31.3.20 unless the money runs out before: the vouchers are then valid for 6 months.

Q2: What's the minimum size for the boilers? Some SMEs have domestic boilers.

A2: Domestic boilers are not eligible. There is no upper kW size limit.

Q3: Is there an approved installer list?

A3: There are lists on manufacturers websites: we want to give some responsibility to the supply chain and this route was recommended to us through our stakeholder workshops. All installers must be Gas Safe, etc. The only challenge might be heat networks, which we'll consider on an individual basis.

## **5. The Power of Battery Storage** **Nigel Dent, Connected Energy**

5.1 Connected Energy use second life car batteries (Renault, Nissan, Jaguar Landrover) for future life. We work with high energy user to help them with energy use and costs.

5.2 The new energy infrastructure will see more renewables. But these can be intermittent and sometimes there is too much generation. Battery storage provides load to the user or a sink to the Grid at times of stress: they can absorb over generation or over demand and balance the grid through frequency / demand response at 50hertz.

5.3 There are several opportunities for energy users:

- a) Behind the meter, where a modularised container battery sits onsite (eg at a leisure centre or LA HQ). The benefits are TRIAD avoidance (leave things as they are and the battery provides the load rather than the grid; accounts for 6.8% of the average electricity bill), TRIAD benefit (return excess to the grid and get a small payment), offset DUOS charges (account for about 16% of fixed electricity bill charges) and capacity market charge avoidance.

We'd:

- i) Look at your half-hourly usage profile
- ii) Match this against TRIAD & DUOS
- iii) Match the batteries to your profile and revenue

We:

- Run the batteries conservatively to prolong life (c 8 year onward life)
- Fully charge from the grid if there's new renewables
- Discharge during TRIAD
- Then cycle back

This process has about a 5.5year payback

- b) Aggregator portfolio, where you enter into a contract for a monthly revenue payment and they pull together other sites, go out to market and get the best price.

5.4 Other applications:

- Renewable load optimisation (store instead of export)
- EV charging under import capacity constraints
- Grid constraints – can see red areas on your DNO website. Can help to expand site when no extra KVA capacity is available.
- Load shifting and peak load trimming: charge battery when available capacity and discharge when there's not

5.5 Case studies:

- Netherlands (Engie): battery takes load from grid and absorbs load from site. Engie is the in-house aggregator.
- Virtual Power Plant, Wales – 60kW/90kWh. Proof of concept. Charging/discharging depending on energy cost forecasting.
- Renewable Load Utilisation (DECC funding – became Connected Energy). Microgrid balancing; power to EV or manufacturer on site (Lotus). Batteries look for renewable charge first and demand will use battery first: the grid comes second – all happen automatically / dynamically.
- Dundee City Council: 30kW PV car park canopy. Power goes purely into batteries (and when full, into the Council building). Provides load to EV charging. Payback is about 8 years (6 years without the EV charging costs). Batteries costs £60-70k; PV costs about £30k.

5.6 We've done lots of modelling for local authorities, schools and universities for both behind the meter savings and grid services. From the Midlands south, the payback is about 5.5 years for a £170k investment (15 year lifetime, with batteries replaced in year 8. These costs could come down in the near future as more second life batteries come onto the market.

5.7 We are on the LASER battery storage framework (the standstill period has just finished). Other providers will be on there too, but we might be the only one providing second life batteries.

Q1: How is the load switching operated?

A1: It's all done through our power control system. There's no formal switching between the battery and grid, so you wouldn't notice if there was no battery: it all happens on the distribution system. You can contract this out to an aggregator.

Q2: What's the battery capacity?

A2: 60kW for EV charging (90kWh). 150kW+ for Council sites. Fully charged to fully discharged takes about 80 minutes. A 20ft container can house about 360kWh.

Q3: What are the benefits of second life batteries?

A3: You can run them harder and change them sooner. They're cheaper to replace, and will be even cheaper in 8 years' time: they account for 10% of the project cost rather than 40% for new batteries.

## 6. Salix Finance

**Alex Morgan and Ed Clark, Salix**

6.1 We are independent and not-for-profit. We work throughout the UK with the public sector. We provide loans for energy efficiency projects with the aim of cutting carbon in the public sector. Savings made by installing the technology are used to repay the loan.

6.2 There's a full list of technologies we support on our website, but the popular ones include boiler replacements, building energy management systems, CHP, heat recovery, heat networks, heating and hot water upgrades, building fabric insulation, lighting upgrades, street lighting and solar & battery storage.

6.3 We've just had clarification from Ofgem that Salix funding does not count as double-funding for solar & battery storage alongside FITs. So far we've only funded batteries within a solar project as carbon savings have to be proved, although they do have other benefits such as resilience. We're looking to pilot stand-alone batteries through a BEIS pilot – please express your interest to help build the case!

6.4 A public sector body has to benefit from the funding. A full list of the eligible areas of the estate are on our website, but include council offices, car parks, communal areas of social housing, depots and warehousing, external building lighting and floodlighting, street lighting, leisure centres, libraries, traffic lighting, museums and theatres, parks and playgrounds, and schools and academies.

6.5 The loans are interest-free and based on the predicted energy savings of the measures: the savings you make through reduced maintenance costs are additional savings for you. We recycle the loan fund out of funds repaid.

6.6 We've traditionally looked at 5-year paybacks, but now we can look at longer term payback periods (eg 10 years) if the loan is paid back in 5 years. The loan can be blended without funding. 8-year payback are allowable in schools as they have fewer operational hours.

6.7 The application process is straight forward:

- i) You can apply online any time through our website, which also hosts a compliance tool. If your application is for more than £100K you'll also need to submit a business case.
- ii) Salix carries out a technical assessment, where we check the pricing against market rates. This usually takes about 2 weeks (although can be quicker). Applications for over £100k are externally assessed. You are also provided with a dedicated contact at Salix.
- iii) Funds are committed: you can start straight away or take the commitment to Cabinet.
- iv) Loans are paid out on completion, but you can have interim payments on larger projects (eg street lighting). Repayments start 6 months later and are made twice a year by direct debit.

6.8 Recipients can also access an online knowledge sharing area and workshops.

Q1: Are the revolving funds going to be re-introduced?

A1: Yes – we've just opened an Expression of Interest for revolving funds again. They'll be best for people with a lot of pipeline / lots of asset with energy efficiency works over the given period. It can save multiple applications to Salix, but the Council must put in 50%. We need to know how much you want, what your pipeline is, the approvals process and what match funding is in place. We submit our overall EOI to BEIS by the end of February and expect a response from BEIS by the end of the financial year.

Comment: It's an incentive to keep energy efficiency projects rolling in or the money goes away.

Q2: Can you fund newbuilds?

A2: Yes – but it has to be over and above legislation / Building Regs, for example solar panels or more efficient lightings.

Q3: What's the repayment profile on revolving funds?

A3: You can delay repayments for up to 1 year.

## **7. Angelic Energy**

### **Graeme Low, London Borough of Islington**

7.1 Angelic Energy is a not-for-profit energy provider started by Islington Council, in partnership with Robin Hood Energy, that offers low cost energy to Londoners. Angelic Energy has now been running for a year and has over 2250 customers. We are now inviting other London Boroughs to partner with us.

7.2 We offer fair and competitive resident tariffs (consistently cheaper than the Big 6), have a UK call centre, help to cut energy use and are committed to tackling fuel poverty. We have voluntarily signed up to pay the Warm Home Discount. Our electricity is 100% green and we have prioritised SMETS2 smart meter roll-out. There may be cheaper tariffs, but we are a trusted brand.

7.3 The benefits of other LAs joining Angelic Energy are:

- You will have the opportunity to have a share in commission income generated from sign ups that can be used to reinvest.
- Be seen and heard – we will help with your marketing and communication plan.
- You will benefit from the use of a strong and well recognised brand. Over 2,250 customers on supply as we approach our first anniversary.
- Hassle-free: we will assist every step of the way

7.4 We can take away the pain and cost if you are thinking of a white label option. There are 5 steps to getting started:

1. Negotiate terms and conditions with key stakeholders and partners
2. Develop marketing and communication plan
3. Sign the legal agreements
4. Initiate new voids and new builds contracts
5. Start promoting partnership and signing up residents

Q1: What are the average savings for householders?

A1: If you haven't switched before it's about £240/year for dual fuel. We are competitive with the Big 6 and monitor our prices on a monthly basis. We also monitor new entrants to the market: many are cheap but don't have the same trust and fold quickly.

Q2: Do you have special tariff for the vulnerable?

A2: No, but they can benefit from the Warm Home Discount. The tariffs we offer are a 12-month fixed, variable, dual fuel and Pay As You Go. We can supply anywhere within the M25.

Q3: Does it need officer resource?

A3: It would need some resource but it can be flexible and is probably less than 1FTE, although you could do more if you wanted

Q4: Are you looking at new billing approaches? For example, billing for students 3-times a year to fit with their funding, or special billing for self-employed people?

A4: I'm not aware of this, but I can feed back to Robin Hood.

## 8. AOB

8.1 The GLA published their Carbon Offset Guidance last week:

[https://www.london.gov.uk/sites/default/files/carbon\\_offset\\_funds\\_guidance\\_2018.pdf](https://www.london.gov.uk/sites/default/files/carbon_offset_funds_guidance_2018.pdf).

How much interest is there among LBEG members? They could raise £30-40m/year with spending on local energy efficiency a priority. Is there any way that inner London Boroughs could use the funds to invest in solar farms on land owned by the outer Boroughs?

8.2 Our next meeting will be at Kensington Town Hall on Tuesday 12<sup>th</sup> February. We'll include time to discuss/share our own projects and innovation.