Meeting	Date
Policy and Resources Committee	7 June 2018
Subject Renewable Electricity Policy and Sourcing Strategy	**Public**
Report of Town Clerk, Chamberlain and City Surveyor	
Report Author Chris Bell, Commercial Director; James Rooke, Energy Manager and Kate Smith, Head of Corporate Strategy & Performance	**For Decision**

Summary

The City of London Corporation ('the Corporation') currently spends approximately £12.6m per annum on energy supply across its portfolio. The newly awarded Energy Buying and Management Service contract presents an opportunity to leverage this investment to better effect; using it to create a positive impact and improving financial resilience through the sourcing of renewable electricity.

This paper proposes a new Renewable Electricity Policy: that the Corporation will source 100% renewable[1] electricity from 2018 onwards.

It is proposed that this be realised through a Renewable Electricity Sourcing Strategy that involves three parallel workstreams: (A) on-site generation, (B) off-site generation and (C) certified renewable electricity. This combined approach aims to provide energy resilience, carbon reduction, reputational benefits, cost certainty and the opportunity to make long term savings on energy commodity costs.

Recommendation
That Members:-

- Approve the proposed Renewable Electricity Policy & Sourcing Strategy.
- Approve a budget of £25,000 from Policy Committee contingency for the implementation of the Renewable Electricity Policy in 2018-19.
- Approve a permanent increase in the baseline budget of up to £50,000 per annum from 2019/20 onwards to fund the renewable electricity premium, subject to the approval of the Corporate Asset Sub Committee

Main Report

Background

1. The renewable electricity referred to in this report only relates to the imported electricity associated with our energy supply contract and is totally separate from energy supplied by the Citigen CHP Unit, which is powered by natural gas.

2. The Corporation's approximate current spend through our energy supply contract is £12.6m per annum (approximately £11.4m electricity, £1.2m gas) across the portfolio of housing, schools, markets, investment properties, open spaces facilities and other corporate buildings.

3. Renewable electricity was not stipulated as part of the previous energy supply contract. There is now the opportunity to source 100% renewable electricity to better align with the Corporation's responsible business aspirations and this should be reviewed as a policy decision.

4. Research and soft market testing was undertaken by City Procurement and City Surveyors over 18 months to address this issue. Responsible procurement mechanisms were then used to ensure that the Corporation would have the opportunity to source renewable electricity as part of the new energy contract. It was found that it was possible and offered a range of benefits.

Methodology: Renewable Energy Policy & Sourcing Strategy

5. The proposed Renewable Electricity Policy & Sourcing Strategy is based on the findings of this research, industry intelligence, market testing and supplier evaluation responses within the energy buying and managed service tender.

Renewable Electricity Policy: The City of London Corporation will source 100% renewable electricity from October 2018 onwards.

It is proposed that the Strategy be comprised of three parallel workstreams. Appendix 1 provides more detail about the benefits and limitations of each approach, justifying the use of all three in combination.

Renewable Electricity Sourcing Strategy:

6. **On-site [Workstream A]:** Generating a relatively small proportion (~1%+) of renewable electricity on Corporation sites, using up front funding that is paid back through savings in imported electricity. Key benefits include:

- long-term cost savings
- Reduced grid reliance
- a visible demonstration of commitment to sustainable development

7. The Corporation already generates renewable electricity at various sites; currently ~0.1% total energy. Installations include photovoltaic (PV) panels, some of which were granted up-front costs through the internal Energy Efficiency Loan scheme[2] (EEL), but the number of additional viable sites are limited. Also, the current thresholds set by the EEL limit the competitiveness of renewables installations over energy efficiency projects. Lastly, the EEL has historically been under-utilised by departments who have the opportunity to bid.

8. **Next steps:** No immediate action required: some renewables projects are already being funded by the EEL. An additional ring-fenced fund for installations would increase the number of projects if this route is elected as a priority. The proportion of on-site generation could also be increased in the longer term when a wider range of viable innovative technologies can be exploited. The investigation into these initiatives is being led by Dept. Built Environment.

9. **Off-site [Workstream B]:** Sourcing a more significant proportion of renewable electricity through investment in external generation. A likely mechanism would be to use Power Purchase Agreements (PPAs)[3]; long term (20-25 year) agreements designed to provide the following benefits:

   - Financial resilience: protection against price volatility and the potential to make long term cost savings. Whole sale and non-commodity costs are set to go up year on year for the foreseeable future.
   - Additional renewable energy added to the grid, contributing to domestic energy resilience i.e. 'additionality'.
   - If just 5% of electricity were sourced in this way, it would allow the Guildhall to be publicised as a flagship edifice run on "zero carbon" electricity.
   - A proportionate reduction in carbon emissions associated with imported electricity and help meet internal Carbon Descent Plan targets.
   - Enhanced reputation associated with an innovative initiative, providing a demonstrable and defensible commitment to carbon reduction

10. **Next steps:** A Transformation Fund bid will be prepared to make a business case for commissioning an expert consultant to research, analyse and present all viable options for the Corporation to invest in off-site renewable energy.

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11. **Certified [Workstream C]:** The remaining proportion of renewable electricity will be secured by purchasing Renewable Energy Guarantees of Origin (REGOs) associated with our imported supply. This is certifiable renewable electricity that is already available on the market and can be bought for a small centrally funded premium. This would incur a maximum cost premium of an estimated £50,000 per annum, off-set by the main benefit:

    - An immediate gain in recognition and reputation, especially if the Corporation chose to join leading Square Mile businesses in e.g. RE100[4].

    Next steps: Policy & Resources Committee are asked to endorse the allocation of an estimated £50k a year for four years from Oct 18 – Sept 22 to fund the purchase of REGOs in support of the Corporation's Corporate Plan commitment to the Responsible Business[5] agenda. It is proposed that the funding for this initiative is sought from Policy Committee contingency for the remainder of 2018-19 and by means of a permanent increase in the baseline budget of up to £50,000 per annum from 2019/20 onwards. There is a strong wish to avoid passing on costs to low income households and small businesses, or individual departments as this would involve disproportionately onerous consultation and administrative burdens.

Corporate and Strategic Implications

12. Ambitious international and national targets have been set for increasing the proportion of renewables into the energy mix, supporting climate change mitigation and energy resilience[5]. As a result, many organisations are buying renewable energy through various mechanisms as part of their commitment to responsible business principles.

13. The Corporation aims to support a thriving economy in the UK, as well as a flourishing society and outstanding environments. In order to do this, the Corporate Plan has identified a key outcome that 'Businesses are trusted and socially and environmentally responsible.' Following from this outcome, a new Corporate Responsible Business Strategy is being developed which aims to bring coherence between our outward role as a champion for responsible business in the UK and our internal actions in response to a variety of global sustainability issues. This strategy also supports a range of existing and emerging Corporation sustainability policies and strategies[5].

Conclusion

14. The Corporation makes a substantial annual expenditure on energy across its operational and investment portfolios. Ratifying a new Policy on sourcing 100% renewable electricity and using the proposed Sourcing Strategy represent key mechanisms to achieve a positive impact, secure long-term cost certainty, open up the opportunity to make long term cost savings and align expenditure more closely to the Corporate Plan outcomes. Furthermore, the Corporation is an active leader in responsible business and needs to ensure coherence between its outward messaging and internal commitments and policy.

Quick Reference

1. Renewable electricity is that which does not represent a net consumption of resources, including that derived from wind, hydro, tidal and solar power. It does not include 'low carbon' electricity such as nuclear or that generated by Combined Heat and Power (CHP).

2. Energy Efficiency Loan scheme (EEL) – a fund of £2.5m total, used to fund invest-to-save projects internally, with departments bidding for a share of the £500k available per year over 5 years through an established process. Proposals for energy efficiency improvements or new renewable energy installations are assessed by a group of cross-departmental representatives. Energy savings are used to pay back the initial loan.

3. Power Purchase Agreements (PPAs) vary but could involve a power company establishing a renewable energy installation and selling or 'sleeving' the power back to the Corporation. There could be options for the Corporation to invest in the installation directly and obtain (at least partial) ownership of an asset and sell the renewable energy back to itself, or have a third party raise the debt and buy the renewable energy through them as part of a long-term (20-25 year) arrangement where the price would be pegged just below a stable index such as the Retail Price Index (RPI).

4. RE100 is a collaborative, global initiative uniting more than 100 influential businesses committed to 100% renewable electricity, working to massively increase demand for - and delivery of renewable energy. Companies signed up: http://there100.org/companies.

5. A new Corporate Responsible Business (RB) Strategy is being developed which aims to bring coherence between our outward role as a champion for responsible business in the UK and our internal actions in response to a variety of global sustainability issues. It supports various outcomes in the Corporate Plan, especially Outcome 5. 'Businesses are trusted and socially and environmentally responsible' and Outcome 11. 'We have clean air, land and water and a thriving and sustainable natural environment'. This Strategy also supports a range of existing and emerging Corporation sustainability policies and strategies *(Carbon Descent Plan, Responsible Procurement Strategy, Climate Change Mitigation Strategy etc.)* as well as emerging and current regional, national and international targets *(Mayor of London's Environment Strategy, UK Clean Growth Strategy, UK Climate Change Act, UK Promotion of the Use of Energy from Renewable Sources Act., UN Sustainable Development Goals, UNFCCC COP21 - Paris Agreement)*

Appendix 1

	[A] On site: Use of on-site generation (small scale)	[B] Off site: Investment in off-site renewable installations (large scale)	[C] Certified: Renewable Energy Guarantees of Origin (REGOs)
Definition	Installations on site e.g. solar panels supplying renewable energy to the site and selling excess to the national grid.	Investment in new installations such as wind/solar farms or energy storage facilities. The usual mechanism is a Power Purchase Agreement (PPA)	Certifiable renewable electricity that is already available on the market, can be bought for a small premium and attributed to clients by ring-fencing.
Benefits	Small carbon reduction. After payback, free energy supply for the lifetime of the equipment. Visible to public, which demonstrates RB commitments.	Significant reduction in carbon emissions. Drives additional demand for UK renewables and as such domestic energy resilience. Cost certainty as supply price pegged to a stable index rather than volatile energy prices. Cost savings outweigh one off expenditure on consultant.	Demonstrate immediate commitment to RB[5], improved offering to IPG tenants, can join e.g. RE100[6,] the Guildhall could be a flagship "zero carbon" electricity building - The reputational benefits outweigh the cost premium.
Limitation	Some capacity restrictions (~1% total energy supply) due to roof access, listed status, SSSIs & AONBs, future building use uncertainties	These strategies can be complex and are long term in nature (20-25 years), necessitating a specialist resource. Availability of large-scale installations to invest in, with approved planning permission etc. are relatively rare.	It presents an ongoing cost and does not have the effect of driving additional demand for UK renewables. Gas REGOs (as opposed to electric) are not yet viable in terms of affordability or availability.
Risk mitigation	Proposals presented as part of an approved process to a group of dept. representatives who weigh up each case in terms of payback periods etc.	Investment risk - mitigated by commissioning a specialist as part of a competed procurement. Financial risk – Although savings would still be made, they would decrease as non-commodity costs increase relative to commodity costs. In the unlikely event of an energy price crash, savings wouldn't be achieved.	Cost risk - Our contractor will determine the exact price premium before we have to commit to buying REGOs, so we will be able to opt in or out depending on known cost.
Costs	Long term cost savings once the payback period has been reached.	It is intended that the cost of a specialist consultant (~£40k) will be mitigated by long term cost savings offered by the PPA or similar investment opportunity.	£50k p/a premium on top of £12.m current total energy spend, or around 0.4% on top of future spend.
Timeline	Ongoing – current and pipeline projects supply ~0.1% of total energy. Total capacity is currently max. ~1%, more in the longer term with innovation.	Proposed investment to start at the end of 2018 or beginning of 2019 depending on options, maturity of new development, timescale of approval process etc.	October 2018 when energy supply contract goes live (after having been forward purchased on our behalf in May/June 2018)