Agenda Item No: 5

Electricity Procurement for 2024-28

To:	Strategy and Resources Committee
Meeting Date:	26 January 2023
From:	Executive Director of Place and Sustainability
Electoral division(s):	All
Key decision:	Yes
Forward Plan ref:	2023/012
Outcome:	To agree a procurement strategy for an electricity supply contract for the supply period starting October 2024.
Recommendation:	Strategy and Resources Committee is recommended to a) approve the renewal of the electricity supply contract with Total Energies via the ESPO framework for the supply period October 2024 to September 2028. b) request an update in 12 months' time as to the steps taken by officers to engage with ESPO, as a shareholder, to support higher levels of low carbon energy in ESPO's forward strategy.

Officer contact:
Name: Sarah Wilkinson
Post: Carbon and Energy Manager
Email: sarah.wilkinson@cambridgeshire.gov.uk
Tel: 01223 729157

Member contacts:
Names: Councillors Lucy Nethsingha and Elisa Meschini
Post: Chair/Vice-Chair
Email: lucy.nethsingha@cambridgeshire.gov.uk & elisa.meschini@cambridgeshire.gov.uk
Tel: 01223 706398

1. Background

1.1 Cambridgeshire County Council consumes around 20 gigawatt-hours (GWh) of electricity per year, at an annual cost of approximately £3.5m in 2021-22, but this cost is likely to be significantly higher in 22-23 and 23-24 onwards, rising to perhaps £8m a year by 2024. The Council currently is liable for electricity bills at circa 200 supply points, which includes our offices, libraries, community centres and other buildings, plus street lighting, feeder pillars, traffic signals etc. but does not include schools. (1 GWh = 1,000,000 kilowatt-hours (kWh).)

1.2 The Council currently has a single contract in place for the supply of electricity with Total Energies, via the Eastern Shires Purchasing Organisation (ESPO) Framework (framework reference 191_B_C_20). This contract will expire at the end of September 2024.

1.3 The purpose of this report is to consider options for the procurement of electricity supplies from October 2024 onwards.

2. Main Issues

2.1 Greenhouse gas emissions. Electricity is the source of all of the Council's 'scope 2' (energy indirect) gross carbon emissions; however these emissions are zero wherever electricity is generated from 100% renewable sources (such as wind or solar). The Council's Corporate Energy Strategy includes 'managing cost' amongst its six strategic focus areas, alongside low carbon energy, local generation and energy efficiency. More recently, the Council's updated Climate Change and Environment Strategy includes the principles of working with our suppliers to improve environmental outcomes and using our purchasing power to drive improvement through our supply chain by specifying more sustainable options. Not only that, but the Strategy sets a target for the Council's scope 1 and 2 carbon emissions to reach net zero by 2030. The Climate Change and Environment Strategy Action Plan also specifically includes the commitment: "At each contract renewal, continue to purchase 100% renewable electricity for all buildings and street lighting operated by County Council."

2.2 Currently, Cambridgeshire County Council purchase Total's 'Pure Green' electricity tariff at a small extra cost. The cost of this is currently 0.56 pence per kWh, equivalent to 1.77% of our total electricity bill, or around £110k per year. This tariff means that we can report zero net greenhouse gas emissions for electricity, under the market-based emissions accounting method, because the electricity we use can be matched to Renewable Energy Guarantees of Origin (REGOs). Continuing to purchase 100% renewable electricity is necessary for the Council to meet its ambitions in the Climate Change and Environment Strategy by reducing net GHG emissions in scope 2 to zero.

2.3 REGO certificates are issued by Ofgem to generators of renewable electricity; one for each megawatt-hour (MWh) of eligible renewable output. (1 MWh = 1,000 kWh). The primary use of REGOs in the UK is for Fuel Mix Disclosure (FMD). FMD requires licensed electricity suppliers to disclose to customers the mix of fuels (e.g. coal, gas, nuclear, renewable and other) used to generate the electricity supplied. The main advantage of REGOs is the ability to demonstrate that the energy we purchase can be matched to the quantity of energy generated from 100% renewable sources. The more customers that demand 100%

renewable tariffs, the more renewable electricity will be required. However, the main disadvantages are that this system does not directly change the source of electricity being fed though the wires on the grid to our particular sites (which would not be possible as long as sites remain connected to the grid), and that the renewable tariffs are usually more expensive. Most suppliers (including Total Energies) offer both 100% renewable and other tariff options, whilst some suppliers only offer 100% renewable tariffs.

2.4 Changes in electricity usage. In the year to 30 September 2022, the Council used over 19 GWh of electricity across its sites, over 11GWh of which was for street lighting. However, the programme of LED replacement street lighting due to start in 2024 will reduce energy use by 6.5 GWh annually by 2026. There will also likely be some increases in electricity use in future years due to the switch away from fossil fuel heating systems to electricity-powered heat pumps and the uptake of electric vehicles, but some of this may be offset by improved energy efficiency, changes to the property portfolio and/or the potential for more on-site solar generation. All of these changes mean that the exact quantity of electricity that the Council will use over the 4 years from October 2024 to September 2028 is very hard to predict, but based on the information we have, could be around the following:

- October 2024 to September 2025: 16.1 GWh
- October 2025 to September 2026: 14.5 GWh
- October 2026 to September 2027: 14.1 GWh
- October 2027 to September 2028: 14.3 GWh

2.5 Volatile markets. The UK and global energy markets have been very volatile recently, especially since the Russian invasion of Ukraine in February 2022, with prices often reaching record highs. Wholesale electricity prices have been driven further up due to a series of reasons, including sanctions on Russian oil and gas, and operational issues at key pipelines, interconnectors and power stations. Electricity prices are also influenced by demand (varies with weather), European gas storage levels, renewables output, and global economic factors as well as UK policy. Therefore it is very difficult to predict future prices now.

2.6 Based on a combination of current prices, future price projections from the UK Government, and market intelligence from ESPO, a central estimate of future prices and usage would lead to an annual spend of around £6.3m for the contract period, meaning the total contract value over four years would be around £25m. However, sensitivity analysis on changes to either prices or usage (or both) means that the likely range is from £3.2m to £8.5m per year, and a contract value of between £15m to £31m.

2.7 The specialist electricity requirements of the County Council, with the large portfolio and particularly the use of un-metered supplies (UMS) which are required for large numbers of streetlights, means that generally only the larger energy suppliers have the capability to supply the Council. There are therefore only a limited number of suppliers who are likely to be willing and able to meet our needs.

2.8 There are a variety of procurement mechanisms available, and we have considered four potential routes to procurement.

2.9 Option 1: ESPO framework (framework reference 191_24) for supply during 2024 to 2028. ESPO is a public buying organisation owned by six member councils, including Cambridgeshire County Council. All ESPO's profits are shared amongst the six member authorities on a pro-rata basis depending on spend.

2.10 ESPO offers a flexible procurement solution, which incorporates a low risk purchasing strategy, in which ESPO purchase gas and electricity between 12 to 18 months prior to the physical supply period. ESPO have an in-house trading team who constantly monitor the markets and make considered purchases on customers' behalf when markets are conducive to do so. The aim is to provide customers with a below average market price and smooth out extremes in forward market prices. Customers using their flexible procurement solution will have their prices fixed for each 12-month term and these will be changed on the anniversary of each term, which for electricity is the 1st of October. Customers joining the Flexible solution will have their volumes aggregated with many thousands of other customers' requirements, enabling the ESPO trading team to operate the risk strategy effectively and make small, multiple purchases over a period of time to flatten the risk curve. The ESPO team manage the procurement and each framework term is for 4 years.

2.11 ESPO has already procured a supplier for the 2024-28 period, and have awarded the contract to Total Energies, who also have the current 2020-24 contract.

2.12 Total Energies is a French multinational publicly-traded oil and gas company, whose businesses cover the entire oil and gas chain, from exploration and production to power generation, transportation, refining, marketing and trading. They employ over 100,000 people (2,353 in the UK) and had annual revenues of over US$184 billion in 2021. Total Energies state on their website that their aim is to reduce their share of petroleum products and "increase natural gas, as a transition fuel, and renewable electricity". (Natural gas is lower carbon than oil but is still a fossil fuel.) In 2021, 44% of Total Energies' sales were from petroleum products (down from 65% in 2015) and 48% were from natural gas (up from 33% in 2015).

2.13 The current ESPO framework (2020-24) is currently used by all six of the member local authorities of ESPO, as well as a large number of other local authorities and other public sector organisations, totalling around 28,000 sites.

2.14 The arrangement with ESPO provides Cambridgeshire County Council with a wide range of services including:

- Development of and periodic review of price risk strategy;
- Data collation and validation;
- Invitation to tender, supplier evaluation, selection and appointment;
- Contract award;
- Supply point transfers;
- Support with disputes and queries;
- Contract performance monitoring;
- Provision of market intelligence information;
- Trading team expertise: purchase required energy volumes in line with agreed price risk strategy.

2.15 For these services, ESPO charge annual fees which are included in the standing charges that we pay. These fees currently equate to around £14,500 per year or ~0.23% of Cambridgeshire County Council's total electricity bill. The service from ESPO to date has in general been excellent and what we get for the fee is considered good value for money.

2.16 Contract renewal deadlines. ESPO initially asked Cambridgeshire County Council to confirm by 31 January 2023 whether or not we wish to renew our contract from October 2024, but have provisionally agreed to extend the deadline for signing contracts to April 2023. The early deadline is to enable ESPO's trading team to commence purchasing of electricity up to 18 months in advance of the supply period.

2.17 Option 2: Beond, part of the E-Energy Group PLC, operate a Dynamic Purchasing System (DPS), which is an alternative method of procuring a supplier. Unlike a normal framework contract, suppliers can be added to or removed from the list at any time. (Suppliers are still required to qualify and pass financial, legal and quality checks.) The DPS offers a live, reverse auction process, with fixed price or flexible options. Beond would advise when to run the reverse auction based on market intelligence, and contracts could be for 2, 3 or 4 years. The price paid by the Council would depend on the bids received by suppliers on the day of the auction, although repeat auctions are possible. This option would not need to be implemented so far in advance, so for supplies for October 2024 onwards, Beond would likely run an auction in the second half of 2023 or early 2024. (However, the Council would still need to give notice if it intended to terminate the existing contract with ESPO, in early 2023.)

2.18 The Council's Energy and Procurement teams undertook some soft market testing with Beond which was carried out in November 2022 to determine the number of bids likely to be received. The teams also met with officers from other local authorities using the DPS, to understand their experience. Feedback from other local authorities was positive. The DPS would enable a wider range of suppliers to bid, compared to using ESPO or another conventional framework. However, it is uncertain which suppliers would be both interested in bidding and capable of meeting the Council's specialist energy requirements.

2.19 Option 3: Other purchasing organisations such as Crown Commercial Services or YPO offer similar services to those of ESPO. However there would be likely to be no advantage in using these over ESPO. There are also other energy brokers in the market, however these may not have much experience dealing with large local authorities with numerous sites and complex supply requirements. Most energy brokers tend to deal more with SMEs and domestic properties.

2.20 Option 4: An alternative to buying through an organisation such as ESPO or an energy broker would be to run a procurement ourselves to contract with a supplier directly. The advantage of that approach would be that we could define the contract scope ourselves and would have full control over the specification. However, this would necessitate running a full compliant procurement process in-house, which would require significant in-house expertise, not only in procurement but also in the energy markets, and would be time and resource-intensive. It is vital to get the scope and specification of such a contract right, which would have to consider energy markets, trading strategies, metering, Automated Meter Reading, Meter Operator services, site works, data provision, billing platform and more. (A Meter Operator agreement is a legal requirement for all half-hourly electricity supplied meters.) We do not currently have the expertise in-house to trade on wholesale

energy markets directly, and a fixed price contract is likely to be significantly higher cost. The high cost, high risk and difficulty of running such an exercise is currently unlikely to be worth pursuing, when compared with the alternative options. Not only that, but the Council would be more likely to incur higher electricity prices when trading directly, when compared to the higher purchasing power of being part of a larger group of customers. This option would also require more resource to manage, including a much greater ongoing contract management capability than is currently in place.

2.21 Comparison of options. In selecting an option, the Council must consider a number of factors including financial cost, environmental impact, quality of service, level of risk and practicality of contract management / administration. None of the available options would provide fixed price tariffs, so the exact costs would remain unknown until the beginning of the supply year.

- Option 1 (ESPO framework with Total Energies) is the best known and lowest risk option. ESPO have an established track record of providing good quality service and good prices. Total Energies offer a 100% renewable electricity tariff, although they are primarily an oil and gas company.
- Option 2 (Beond DPS) could be more likely to lead to greater innovation and the chance of switching to an exclusively 100% renewable supplier, although this is not guaranteed. This option is higher risk on price and customer service due to greater uncertainties.
- Option 3 (Other buying organisations) offers no advantages over option 1 so is not recommended.
- Option 4 (in-house procurement) is the most difficult, costly and highest risk, and so is not recommended.
- Further details on comparison of options is provided in Appendix A

2.22 Additional services. One further consideration is whether it is possible to take advantage of the fact that the Council both buys and sells electricity, as it is both a consumer and also a generator. The Council owns a solar farm already in operation and has further solar generation assets in development. It may be possible to match some of the volumes of electricity exported and sold from its generation assets (such as solar farms), against part of what is purchased through our incoming supplies from the grid, through arrangements such as Power Purchase Agreements (PPA) or sleeving. This may or may not offer cost advantages, and further work is in progress with the Finance, Procurement and Energy teams to establish whether this option is worth pursuing. In any case, a supply contract would still be required, since the volumes bought and sold at different times would not match exactly.

2.23 Energy efficiency and reducing energy consumption will still have a key role to play, whichever procurement option we select. (The cheapest unit of electricity is always the one we don’t use.)

3. Alignment with corporate priorities

3.1 Environment and Sustainability
The report above sets out the implications for this priority in paragraphs 2.1 to 2.3 and 2.23.

3.2 Health and Care
There are no significant implications for this priority.

3.3 Places and Communities
There are no significant implications for this priority.

3.4 Children and Young People
There are no significant implications for this priority.

3.5 Transport
There are no significant implications for this priority.

4. Significant Implications

4.1 Resource Implications
The report above sets out details of significant implications in paragraphs 2.4 to 2.8 and 2.22.

4.2 Procurement/Contractual/Council Contract Procedure Rules Implications
Both the ESPO and Beond options are fully compliant with the Council's Contract Procedure Rules. The report above sets out further details of significant implications in paragraphs 2.7 to 2.21.

4.3 Statutory, Legal and Risk Implications
The report above sets out details of significant implications in paragraphs 2.5 to 2.7, 2.16, 2.21 and 2.22.

4.4 Equality and Diversity Implications
There are no significant implications within this category. Equality Impact Assessment reference number is CCC478133107.

4.5 Engagement and Communications Implications
There are no significant implications within this category.

4.6 Localism and Local Member Involvement
There are no significant implications within this category.

4.7 Public Health Implications
There are no significant implications within this category.

4.8 Environment and Climate Change Implications on Priority Areas:

4.8.1 Implication 1: Energy efficient, low carbon buildings.

Positive/neutral/negative Status: Positive
Explanation: A focus on reducing electricity consumption whilst also continuing to purchase 100% renewable electricity supplies will support our drive to net zero carbon for scope 2.

4.8.2 Implication 2: Low carbon transport.
Positive/neutral/negative Status: neutral
Explanation: No impact

4.8.3 Implication 3: Green spaces, peatland, afforestation, habitats and land management.
Positive/neutral/negative Status: neutral
Explanation: No impact

4.8.4 Implication 4: Waste Management and Tackling Plastic Pollution.
Positive/neutral/negative Status: neutral
Explanation: No impact

4.8.5 Implication 5: Water use, availability and management:
Positive/neutral/negative Status: neutral
Explanation: No impact

4.8.6 Implication 6: Air Pollution.
Positive/neutral/negative Status: neutral
Explanation: No impact

4.8.7 Implication 7: Resilience of our services and infrastructure, and supporting vulnerable people to cope with climate change.
Positive/neutral/negative Status: neutral
Explanation: No impact

Have the resource implications been cleared by Finance? Yes
Name of Financial Officer: Stephen Howarth

Have the procurement/contractual/ Council Contract Procedure Rules implications been cleared by the Head of Procurement? Yes
Name of Officer: Clare Ellis

Has the impact on statutory, legal and risk implications been cleared by the Council's Monitoring Officer or Pathfinder Legal Services? Yes
Name of Legal Officer: Linda Walker

Have the equality and diversity implications been cleared by your EqIA Super User? Yes
Name of Officer: Sheryl French

Have any engagement and communication implications been cleared by Communications? Yes
Name of Officer: Christine Birchall

Have any localism and Local Member involvement issues been cleared by your Service Contact? Yes

Name of Officer: Sheryl French

Have any Public Health implications been cleared by Public Health? Yes
Name of Officer: Jyoti Atri

If a Key decision, have any Environment and Climate Change implications been cleared by the Climate Change Officer? Yes
Name of Officer: Emily Bolton

5. Source documents

5.1 Cambridgeshire and Peterborough Corporate Energy Strategy, July 2019
Cambridgeshire County Council Climate Change and Environment Strategy, Part 1
Cambridgeshire County Council Climate Change and Environment Strategy, Part 3: High level action plan
ESPO electricity (for supply during 2020-2024) framework
ESPO electricity (for supply during 2024-2028) framework
Total Energies – Transforming to reinvent energy
Total Energies ownership structure

Appendix A – Comparison of Options

Option / details / criteria	Option 1: ESPO / Total Energies	Option 2: Beond DPS	Option 3: Another buying organisation	Option 4: In-house procurement
Buying organisation	ESPO	Beond	Various	N/A
Supplier	Total Energies	Unknown	Unknown	Unknown
Procurement method	Framework	Dynamic Purchasing System	Framework	Direct procurement
Cost of electricity	Unknown. Likely to be lowest cost option due to known strong past performance in trading team and aggregated purchasing with other customers.	Unknown. Likely to be similar cost to option 1 but risk that could be higher.	Unknown. Likely to be similar cost to option 1 but risk that could be higher.	Unknown. Likely to be highest cost as less purchasing power when not aggregated with other customers.
GHG emissions from electricity	Zero if we continue to purchase 100% renewable tariff	Zero if we continue to purchase 100% renewable tariff	Zero if we continue to purchase 100% renewable tariff	Zero if we continue to purchase 100% renewable tariff
Type of green electricity tariff	REGO-backed 100% renewable	Unknown. Council could specify.	Unknown. Council could specify.	Unknown. Council could specify.
Supplier's environmental impact.	Supplier is primarily an oil and gas company.	Unknown. Potential suppliers include mainly oil/gas companies and few others.	Unknown. Potential suppliers include mainly oil/gas companies and few others.	Unknown. Potential suppliers include mainly oil/gas companies and few others.
Quality of customer service	Excellent track record of performance in billing, administration and resolving queries.	Unknown	Unknown	Unknown
Resource required for procurement	Minimal	Small. Some work to agree specification.	Small. Some work to agree specification.	Large amount of work required.
Resource required to manage contract	Same as existing	Unknown. Likely to be same as existing.	Same as existing	Additional full time role likely to be required.
Overall risk level	Low	Medium	Medium	High