REPORT TITLE: PROCUREMENT OF ENERGY CONTRACTS (GLOUCESTERSHIRE COUNTY COUNCIL ESTATE AND SCHOOLS)

Cabinet Date	**22nd December 2021**
Cabinet Member	**Cllr Lynden Stowe (Finance and Change)** **Cllr David Gray (Environment and Planning)**
Key Decision	**Yes**
Purpose of Report	To seek Cabinet approval to conduct competitive tender processes for the purchase and sale of energy.
Recommendations	1) That Cabinet authorises the Executive Director of Economy, Environment and Infrastructure, in consultation with the Executive Director of Corporate Resources, the Cabinet Member for Finance and Change and the Cabinet Member for Environment and Planning to: i. Utilise the services of a central purchasing body (the "CPB") (i.e. a contracting authority which provides centralised purchasing activities on behalf of other contracting authorities in accordance with public procurement law) that has been selected by the Council using a risk/benefit analysis to procure the supply of energy (electricity, gas and other fuels) on behalf of the Council, maintained schools and Academies on a commission-only basis. ii. Enter into a commission-only contract(s) with such CPB for the supply of energy purchasing services. Such contract(s) shall continue for an initial period of 4[1] years and include an option to extend its/their term(s) for a further period of not more than 3 years. iii. Determine whether to exercise the option to extend the term of such contract(s) for a further period of not more than 3 years on its/their third anniversary. iv. Procure, subject to the financial restrictions set out in the Resourcing Implications section of this report, such number of contracts for the supply of gas and renewable electricity on behalf of the Council, maintained schools and Academies as may be required by them based on their respective energy needs from time to time, using the CPB's range of EU compliant procurement products. Each such contract shall be co-terminous with the contracts(s) described in Recommendation ii) above.

[1] The contract will be for an initial period of 3 years, but to allow forward buying a 12 month period is also included before the supply contract starts

	v. Award such contracts to the preferred tenderers. vi. Determine whether to exercise the option to extend the term of such contract(s) for a further period of not more than 3 years on its/their third anniversary. vii. Conduct a competitive tender process in respect of a single supplier contract for the sale of electricity that has been generated by the Gloucestershire Energy from Waste Facility. The proposed contract shall continue for an initial period of 4[2] years and include an option to extend its term for a further period of not more than 3 years. viii. Award such contract to the preferred tenderer. ix. Determine whether to exercise the option to extend the term of the proposed contract for a further period of not more than 3 years on its third anniversary. x. Regularly report to the Cabinet Member for Finance and Change and the Cabinet Member Environment and Planning regarding the progress of such procurement exercises and keep them informed of any significant new risks that emerge therefrom.
Reasons for recommendations	To enable the Council to buy and sell energy so as to best manage price risks, in accordance with best practice, and to fulfil the action under the Council's Gloucestershire Climate Change Strategy, to buy only 100 per cent renewable electricity.
Resource Implications	The proposed contract for the purchase of electricity will be for a maximum of 7 years (a 4 year initial term with an option to extend for up to 3 years) with an estimated full life value of £37.1m. The proposed contract for the purchase of gas will be for a maximum of 7 years (a 4 year initial term with an option to extend for up to 3 years) with an estimated full life value of £15.8m. The sale of Council-generated electricity will be at prices to be determined by the market. The contract will be for a maximum of 7 years (a 4 year initial term with an option to extend for up to 3 years). Any service charge for the future contracts will be incorporated within the annual cost of electricity and gas. GCC will procure the energy and then pass on the costs based on actual usage to non GCC premises and cover the cost of the energy for its own premises from the sale of Council generated electricity and from within the existing budgets.

[2] See footnote 1

Background Documents	Residual Waste Contract Procurement, Cabinet 13 September 2012 Gas and electricity procurement for Gloucestershire County Council buildings and schools, Cabinet 10th July 2013 Extension of the West Mercia Energy (WME) Electricity Contract, Cabinet Member for Finance and Change, 3rd March 2016 Energy Contract Award (Electricity) for Gloucestershire County Council Estate and Schools (including Academies), Cabinet 13 December 2017. Energy Procurement (Gloucestershire County Council Estate and Schools (Inc Academies)), Cabinet 18 July 2018 Contracts relating to the Sale and Purchase of Electricity and Gas, Cabinet 22 July 2020 Leading the response to the Climate Emergency: Gloucestershire Climate Change Strategy Annual Report & action plan, 2021/02 – 2026/27
Statutory Authority	Not applicable
Divisional Councillor(s)	None
Officer	Purchasing of energy: Colin Chick, Executive Director of Economy, Environment and Infrastructure Email: colin.chick@gloucestershire.gov.uk Tel: 01452 328 470 Steve Mawson, Executive Director of Corporate Resources Email: steve.mawson@gloucestershire.gov.uk Tel: 01452 425 557 Sale of electricity: Colin Chick, Executive Director of Economy, Environment and Infrastructure Email: colin.chick@gloucestershire.gov.uk Tel: 01452 328 470
Timeline	New contracts to be signed 12 months prior to existing contracts expiry on 30th September 2023 to allow forward price fixing of energy that is bought for consumption by the Council and schools/academies and also electricity generated by the Gloucestershire Energy from Waste Facility.

Background

1. Gloucestershire County Council (the Council) is both an energy producer and an energy purchaser.

Energy Purchasing

2. The Council's gas and electricity are currently bought through West Mercia Energy (WME) a central purchasing body (CPB) owned by a consortium of local authorities, buying on behalf of other public bodies. WME compliantly procure volume contracts for clients, using a variety of techniques to best manage market rates. They also provide services that include billing validation and management of consumption data.

3. The current contract with WME provides good value for money to the Council and flexibility to forward buy (fix the prices of) electricity and gas (a year in advance). This secures competitive pricing for the Council, schools and Academies. The Council has procured a number of energy supply contracts using WME since October 2009. The current contracts expire on 30th September 2023 and authority to procure new contracts is required in good time, to allow for advance buying at preferable rates, from autumn 2022.

Volumes and forecasting

4. The Council spent c£6.7m per annum on gas and electricity (including for over 300 schools, including Academies) in 2020/21, of that c£4.7m is on electricity alone; this amount is subject to market conditions and will vary depending on the weather conditions and property infrastructure. Currently, due to the depletion in gas stores in the UK, delays in energy infrastructure and political events, it is forecast that in the short term gas prices may reach an all time high which could increase gas costs in the worst case by an estimated £566k in 2021/22. The view on the longer term energy prices is less clear and will be dependent on a number of factors, such as the severity of the coming winter, level of renewable energy generation as well as political events internationally impacting gas supply in particular.

5. Whilst consumption has reduced over the last 3 years, expenditure has fluctuated and increased overall. Table 1 shows energy use and expenditure 2018/19 to 2020/21.

6. Gas and electricity usage by the Council has been reducing due to portfolio rationalisation (property disposal and academy conversions), infrastructure improvements and partly due to the pandemic from March 2020. Highways Street furniture electric usage has decreased due to the LED lighting rollout across the county. Shire Hall has had 197 kWp Solar Photovoltaics installed during refurbishment which helps towards the complex annual usage. Electricity usage is likely to increase in the coming years with electric vehicle charging becoming more widespread and the need to decarbonise heating systems, meaning less gas will be used by the Council. In the short term COVID prevention measures may increase the requirement for ventilation throughout corporate and schools properties and therefore increase energy usage for heating.

Table 1: Gas and electricity consumption and expenditure (1 GWh = 1,000,000 kWh)

	Gas			Electricity		
	2018/19	**2019/20**	**2020/21**	**2018/19**	**2019/20**	**2020/21**
Highways Street Furniture	-	-	-	£1.8m (12.4 GWh)	£1.6m (10.2 GWh)	£1.6m (9.7 GWh)
Council premises & schools	£1.1m (34.4GWh)	£1.15m (35.3 GWh)	£1.5m (36.1 GWh)	£2.8m (20.1 GWh)	£3.0m (19.9 GWh)	£2.4m (16.6 GWh)
Academies	£0.8m 30.9 GWh	£0.7m 25.9 GWh	£0.5m 21.8 GWh	£1.5m 13.3 GWh	£1.0m 10.04 GWh	£0.7m 6.7 GWh
Total	**£1.9m (65.3 GWh)**	**£1.8m (61.2 GWh)**	**£2.0m (57.9 GWh)**	**£4.3m (45.8 GWh)**	**£5.6m (40.1 GWh)**	**£4.7m (33.0 GWh)**

Energy generation and sale

7. The Council is also an energy producer with electricity being generated by the Gloucestershire Energy from Waste Facility (the Facility) (it also has the potential for heat off-take in the future, should an appropriate user be found).

8. The Facility became fully operational in October 2019 and is a large energy producer within the Council's portfolio. Urbaser Balfour Beatty (UBB) (the contractor) guarantees to produce 116,000 MWh of electricity per annum over the life of the contract, with the Council bearing the associated price risk of this electricity. As well as the income it provides, which is accounted for within the waste disposal budget, it also provides a hedge against future electricity price increases above the rate of inflation; i.e. if the price of electricity used by the Council rises, there will be a compensating rise in the Council's electricity income.

9. Electricity is sold through a Power Purchase Agreement (PPA); this is a contract to sell electricity from a generator (in this case UBB on behalf of the Council) to a licensed buyer (the 'off-taker'). The current PPA was procured for a 4 year term (a 2 year initial term with an option for a 2 year extension, which was approved at the Cabinet meeting held on 22nd July 2020) with the off-taker EDF Energy (EDFE). EDFE has offered a flexible approach to the sale of electricity which has allowed the Council to optimise its selling strategy.

10. In 2020/21 the Council received an income of c.£5.2m for the sale of electricity. The income will vary annually based on seasonal prices and the volume of electricity that the Facility generates.

11. Table 2 shows the electricity generated at the Gloucestershire Energy from Waste Facility.

Table 2: Monthly electricity generation

Electricity generated (MWh)			
Month	**2019-20**	**2020-21**	**2021-22**
April		9285	12433
May		9311	9644
June		8658	11814
July		11929	11728
August		11561	11149
September		8654	6254
October	3091	6893	10437
November	10813	12013	
December	9110	10832	
January	12123	12044	
February	10947	11637	
March	9806	12384	

12. There may be some future opportunities for private wire sales (where a user receives the energy directly from the Facility, bypassing the National Grid); these could potentially give a greater income to the Council as the energy consumer avoids having to pay any Government surcharges and the benefit can be shared between the consumer and the Council. If such an opportunity were to emerge then it is likely to take a number of years to come to fruition. In the meantime, the Council has an ongoing requirement to sell the electricity generated at the Facility.

Strategy and Policy

13. The most appropriate and cost-effective routes for the Council's energy purchase and sales has been considered in line with the following key objectives:

    i. Compliance with legislation, policy and best practice;
    ii. Ability to forward buy electricity to ensure stability of rates;
    iii. Value for money for the Council as a whole:
        - Any financial benefits will be project based to ensure individual business cases remain whole;
        - Protect the Council and schools from volatility of the market as far as is practicable; and
        - Ensure value for money for the Council as a purchaser; and
    iv. Delivery of the Gloucestershire Climate Change Strategy, including:
        - For the Council to be Net Zero by 2030; and
        - To buy only 100 per cent renewable electricity for the Council's buildings, street lighting and council schools.

Buying strategy

14. Government guidance and best practice advises that energy purchases should be made through a Public Buying Organisation (PBO) or equivalent (e.g. CPB). Forward buying through a CPB, using its range of procurement options, allows an opportunity to secure better prices through advance commitments and collaborative purchasing with other public sector clients, and the potential to arrange fixed prices if they are

advantageous. It also allows the Council to vary its approach to the purchase of renewable electricity. Various procurement vehicles may include a reverse auction, Dynamic Purchasing System (DPS) and frameworks, all of which would allow the Council to enter into various energy contracts depending on the Council's appetite for risk on volume and price.

15. Renewable electricity can currently be purchased in a number of forms, although this maybe subject to change. The Council can buy renewable electricity through various routes:

    - Buying brown[3] wholesale electricity and purchase separate Renewable Electricity Guarantee of Origin (REGO) certificates[4] (the REGO is purchased independently to the brown energy purchased, so has no direct link)
    - Buy renewable electricity with REGO certificates (unlinked, both from renewable sources but independent of each other)
    - Buy renewable electricity with REGO certificates both from the same source (electricity and REGOs originate from the same renewable source/generator)
    - Sleeving renewable electricity from a local source e.g. having an electricity supply contract with a local wind or solar farm

16. These options are dependent on the approach to procurement and contract form GCC accepts.

17. The Council is adopting a more risk averse strategy with regards to volume and pricing risk to protect itself and the schools from volatility of the market. These risks can be minimised by using price capping mechanisms where available and by volume risk being taken by the supplier. In accordance with the Electricity Trading Protocol (approved by Cabinet July 2020), the Council is purchasing electricity for its corporate properties in parallel with its sale of electricity from the Facility; this effectively removes the price risk to the Council , where any increase in the cost of electricity purchased is offset by the increased selling price.

<u>Selling strategy</u>

18. There are two main pricing structures commonly employed within a standard PPA:

    i. "Market Price" (also called "Floating price"): where the off-taker buys the electricity at a small discount to the spot wholesale market price, which can change as frequently as every hour.

    ii. "Fixed price": where the Council would seek to fix the price months or possibly up to a few years ahead, which gives price certainty and reduces the risk of daily volatile prices.

19. There are a range of pricing strategies and mechanisms available which combine both floating and fixed price arrangements in differing proportions and risk profiles.

20. Given that market prices are volatile and in order to manage volume risk effectively, the Council will look to procure a contract that best minimises these risks. This could be through a flexible approach; the Council can adopt a blended strategy of fixing prices in

[3] Brown electricity is commonly used to refer to non-renewable electricity.
[4] A REGO proves that a given share of energy was produced from renewable sources.

advance for part of the electricity volume whilst leaving a buffer volume (i.e. a small volume) unfixed to manage any fluctuation in power generation from the Facility. It can also fix the price of all the electricity generated by the Facility and under this option the off-taker manages the volume risk. These approaches to trading were approved by Cabinet in July 2020.

21. The Council will continue to investigate private wire opportunities as they arise.

Options

22. The following options have been considered:

Option 1: Do nothing

23. The present contracts with WME (for the purchase of gas and electricity) and EDFE (for the sale of electricity) both expire on 30th September 2023.

24. Should the Council decide not to procure new contracts and instead extend the term of its current contracts:

- The Council and each school would be exposed to 'out of contract' unit rates, which would be subject to the volatility of the electricity market (which can be strongly influenced by global climatic and geo-political events).
- The Council would risk being in breach of Public Contract Regulations 2015 (PCR 2015) as it will have effectively directly awarded a contract without competition should the arrangement with WME continue out of contract or the Council enter a contract with a new supplier.
- The Council has a contractual obligation to ensure a selling arrangement is in place for the Facility. If an arrangement is not procured, the Council would be in breach of its contract with UBB and would not receive the income expected from the electricity generated by the Facility.

25. Therefore this is not a viable option. The Council needs to ensure continuation of these services to deliver its front line services, achieve best value and to comply with procurement regulations.

Option 2: Combine buying and selling of electricity but procure gas separately

26. This option offers the potential benefit of the Council using the electricity it generates to supply to itself and other public sector organisations, but must outweigh the benefits of making separate buying and selling arrangements. There are a number of variations on a theme in this area which have been explored with market experts and potential suppliers.

27. The conclusions are that:

i. There is little or no benefit in combining the buying and selling of electricity into a single arrangement – there are no cost advantages to be gained and any flexibility will require additional contract terms that incur further costs and administrative complexity.

ii. The Council is not able to 'self-supply' from the Facility because it does not hold an electricity supply licence (and obtaining and maintaining one would be very burdensome). The Council could use the services of a licenced electricity supplier to 'sleeve' electricity from the Facility to the Council but there would be negligible

savings compared to a normal supply from a licenced supplier. Electricity from the Facility is only approximately 50% renewable.

iii. Therefore, based on the above, this option is not recommended, but this position should continue to be reviewed in the future.

Option 3: Separate buying and selling – procure electricity and gas using CPB and sell electricity via a Power Purchase Agreement (PPA) – RECOMMENDED

28. Under this option the Council would procure a PPA to sell the electricity wholesale to a licenced electricity supplier[5] at market price for an initial fixed term of 4 years, with the option to extend up to a further 3 years. This is a contract of sufficient length to attract market interest, but allows the Council to closely monitor sales and adjust the selling strategy, if required. It will also allow the Council to enter into private wire agreements as and when they materialise.

29. Past experience and market information has indicated there are minimal financial benefits in combining gas and electricity purchasing through a single supply contract – hence it is recommended that each contract is procured separately and managed accordingly, to achieve optimum value for money. In addition, purchasing our energy via a CPB may provide greater protection from volume risk, depending on the risk appetite of the Council (the purchaser).

30. Any energy purchase will continue to be made through a CPB or equivalent – which is Government recommended best practice and allows for additional benefits of aggregation, bill validation services, demand management and financial rebates.

31. As with Option 2, the Council will need to ensure that all contracts continue to be appropriately aligned and monitored, such that buying and selling strategies complement each other effectively and optimise opportunities for best pricing across both. This will be managed though the Electricity Project Group which offers assurance and challenge.

Risks

32. Electricity cost – although the Council (and participating schools) is buffered by the purchasing power of a CPB, electricity pricing is subject to the volatility of the wholesale electricity market, pressures and fiscal measures which are passed on directly to the purchaser. In addition, schools opting not to sign up to the Council's contract would increase the risk of the price rising further as the Council's purchasing power is reduced. The risk to the Council will be mitigated by monitoring of the contracts and ensuring volume and price risk is managed effectively for both schools and corporate properties. This then buffers the overall volatility of the energy markets.

33. Conflicting electricity buying and selling prices – because of the requirements of higher prices for selling and lower prices for buying, the Council co-ordinates price fixing decisions between electricity sales and purchases to ensure that the strategies are compatible and effective to avoid conflicting outcomes (e.g. buying high and selling low).

34. Volume risk – using the most appropriate products or combination of products available to manage this risk when buying and selling.

---

[5] The likely purchaser of the electricity will be a licenced electricity supplier (who will then resell, or "supply" it to end consumers).

35. Skills – the energy market is a highly specialised field. The complexity of the procurement options can create a risk if not managed by a competent person with the appropriate level of skills and expertise. It is also time consuming due to the potential number of suppliers and types of contract available. The Council will procure suitable advisory services to assist the management of its portfolio.

36. Adapting to new contract arrangements – bedding in any new contract can lead to disruption or change to normal service. The Council will work closely with the CPB to ensure proactive engagement with schools and all other users to minimise short term disruption.

37. Private wire opportunity from the Gloucestershire Energy from Waste Facility - The potential electricity requirements of any private wire opportunity, although positive, could influence an off-taker's decision to bid or could increase the premiums charged by an off-taker. The balance of attracting private wire, but also not upsetting the market can be managed through a contract break clause allowing both the Council and off-taker to review prices and opportunities; but also allowing potential private wire proposals to be considered.

Financial implications

38. The contract for the supply of electricity will be for a maximum of 7 years (a 4 year initial term with an option to extend for up to 3 years) with an estimated full life value of approximately £37.1m. Electricity contract values will ultimately depend on the market prices.

39. The contract for the supply of gas will be for a maximum of 7 years (a 4 year initial term with an option to extend for up to 3 years) with an estimated full life value of approximately £15.8m. Ultimately gas contract values will depend on the market prices.

40. The sale of electricity generated at the Facility by UBB on behalf of the Council will be at prices to be determined by the market. The contract will be for a maximum of 7 years (a 4 year initial term with an option to extend for up to 3 years).

41. Any service charge for the future contracts will be incorporated within the annual cost of electricity and gas. GCC will procure the energy and then pass on the costs based on actual usage to non GCC premises and cover the cost of the energy for its own premises from the sale of Council generated electricity and from within the existing budgets.

Climate change implications

42. In May 2019 all Gloucestershire councils declared a Climate Emergency and the Council included commitments to be a carbon neutral county by 2050 and a carbon neutral council by 2030, with at least an 80% reduction in carbon emissions. By September 2019 the Council switched to a green electricity tariff; standard grid electricity backed by REGOs. In December 2020 Cabinet brought the carbon neutral county target forward to 2045. In its Climate Change Strategy, the Council has committed to purchase 100% renewable electricity for its buildings, street lighting and council schools to help meet its climate targets.

43. The contract for the sale of electricity will not have a direct impact on climate change. Electricity generated from the Facility is considered eligible for the REGO scheme. As

the Council (via UBB) is now an electricity generator it can acquire REGOs. It is expected that a REGO will be issued by the electricity regulator, Ofgem, for every two MWh of electricity produced at the Facility. Compositionally, approximately 50% of residual waste is deemed to be renewable, therefore to be issued with one REGO certificate, the Facility needs to produce 2MWh of electricity.

Equality implications

Has an Equalities Impact Assessment (EIA) been completed? No

44. In the development of this procurement approach 'due regard' has been given to the aims of the Public Sector Equality Duty under the Equalities Act 2010; it is concluded that the process of procuring electricity and gas for the Council estate and schools, and selling any generated electricity will have no significant equality implications for the 'protected characteristics' given the nature of the services involved.

Data Protection Impact Assessment (DPIA) implications

45. There is no requirement to complete a DPIA for this scheme.

Social value implications

46. Social value will be considered as part of the procurement process and contractual obligations for purchasing and selling contracts.

Consultation feedback

47. Not applicable

Officer recommendations

48. Option 3 is recommended as the benefits of this option, detailed above, are such that in the current situation it provides the most cost effective solution for the Council.

Performance management/follow-up

49. There will be regular monitoring of pricing and service delivery with new contract arrangements in line with the Council's contract management processes.
50. Based on good practice, the Electricity Project Group (the internal working group who manage and monitor electricity trading) will continue to monitor the performance of the contracts and regular contract management meetings will continue to be held.