

**CLIMATE CHANGE ADVISORY PANEL
27 JANUARY 2022
6.30 - 8.45 PM**



Present:

Councillors Virgo, Mrs Hayes MBE, Mrs Ingham, Mossom, Parker and Temperton

Apologies for absence were received from:

Councillors Mrs McKenzie-Boyle, Kennedy and Leake

Also Present:

Councillors Bettison and Gbadebo

29. Declarations of Interest

There were no declarations of interest.

30. Minutes

The minutes of the Climate Change Advisory Panel meeting held on 27 January 2022 were confirmed as a correct record.

31. Urgent Items of Business

There were no urgent items of business.

32. Local Renewable Power Generation: Anaerobic Digestion Plant High Level Feasibility

Councillor Virgo introduced the Climate Change Advisory Panel and explained that this Advisory Panel meeting would be looking at Local Renewable Power Generation: Anaerobic Digestion Plant High Level Feasibility.

The Climate Change Advisory Panel received an update from Kevin Gibbs, Executive Director: Delivery on the outcome of the Atkins report into the high-level feasibility of building an anaerobic digestion (AD) plant in the Borough.

Kevin was joined by Damian James, Assistant Director: Contact Services, Grainne Siggins, Executive Director: People and Ross Wilson and Richard Lancaster from Atkins.

The presentation covered the following highlights:

- The paper looked at many different aspects of Anaerobic Digestors.
- Within the Climate Change Action Plan it had been raised by a number of consultees that not enough was being done around local power generation.
- In discussion with the Executive Member 12 months ago, work had begun to look at different options, and one of those was anaerobic digestion.
- The following types of renewable energy could be invested in by the Council; Solar, Wind turbines, Hydroelectric, Micro-nuclear, Micro combined heat and power and Hydrogen fuel cell

- A number of consultees commented that Bracknell was behind other Councils in local power generation.
- Council owned energy firms had lost more than £100m according to new analysis.
- A short video was shown to the Panel.
- The key concept of Anaerobic Digestions was that it broke down the organic material and turned it in to different sources, one of these being biogas and one being digestate, which could be used as fertilizer and could be used in terms of renewable energy through turning into a gas or directly into electricity.
- Re3 food waste is contracted at an anaerobic digester in Wallingford until 2031, it produces biomethane which is used to create electricity and received approximately 20,00 per annum from the three re3 Councils.
- Members had recently visited the Wallingford Anaerobic Digester.
- It was hoped that the number would be driven down, regarding the amount of food waste received across the council.
- An average village was 2000 homes and would need 17,000 tonnes of food waste to electrically power it. It would cost £9m to build an electricity to grid AD plant.
- 19,000 tonnes of feedstock would require a land space of circa 0.8 hectares.
- A 50,000 tonne plant would generate 3MWh which could power up to 6,000 homes.
- There were 780 re3 movements to Wallingford per annum.
- There had been a visit to the Basingstoke AD in September 2021.
- The first stage of any procurement process was market making, which would be the council showing what the need was.
- The Business Case for an AD plat seemed viable, but required significant investment of at least £18m including land.
- The Council would not be able to lead as a core service, nor were the expertise in place for this.
- Initial feasibility work had been developed, but it was an officer view that the market was well willing to invest in.
- The S151 Officer had commented that the Council would not be able to borrow for this type of scheme.

Grainne Siggins, Executive Director: People, provided her personal feedback of living by an AD plant.

- Grainne owned a small non-working farm in the rural Cambridgeshire countryside, a year later notice of an AD plant was proposed.
- Communication was key during the planning process, as the farmers had not communicated prior to the application.
- The view and environmental impact were a concern.
- Odour and noise were unknowns.
- Transportation and traffic were raised as issue.
- Construction was slow, and longer than expected.
- A tour and explanation of the plant was given.
- Onions, leaks and maise were used at first.
- Noise was an initial issue from the burner and could be heard from the house, the farmers would be advised when this happened.
- There was an odour from the onions in the summer.
- Getting used to the routine and running of the plant was important.

- They have increased the volume of food waste, maize was the main food, and there were 2 weeks when tractors are coming and going 24 hours of a day, permission was sought by the farmers for this.
- It was a small plant, with a larger plant 1 mile away, which was not near any residents.
- If animal excrement was used then there would be more odour, but this would require planning changes.
- The lorries came twice a week to empty the digestors, the other vehicles tended to be tractors.
- The maize was leftovers, but some fields were grown for direct use.
- Construction of the plant took 18 months

As a result of the groups comments and questions, the following points were made:

- An Environmental Bill was going through Government at present, and as part of that included Food Waste, the date for all Councils to have introduced a food waste collection service had moved back until 2025.
- The details of the Bill would be crucial to see how waste infrastructure would work going forward, members would be updated once more was known.
- Generally, there would not be enough AD if all councils were to collect food waste, there was capacity in the system but not enough for all Councils.
- It was important not to jump ahead of the market and not back the wrong solution.
- Food Waste collection had been a success, and as a result people were starting to change their habits.
- The re3 partnership was Bracknell, Wokingham and Reading working together to manage waste. By combining the three waste streams, it allowed the partnership to shop around.
- 200,000 tonnes would be produced by the partnership over the next 10 years.
- So far there hadn't been evidence that food waste was reducing within Bracknell.
- Prior to starting the collection, it was expected that an average of 1.4kilograms would be collected from each household, however the actual number was around 2.75 kilograms per household. As a result, over 5000 tonnes had been collected from Bracknell Forest since 1 March 2021, which was over the prediction of 4000 tonnes in a year.
- Communications would be done through Coms regarding reducing the amount of food wasted.
- There had been a 25% reduction in refuse waste collection over the same period.
- The energy grid was being decarbonised.
- The Council had been asked what it was doing in Local Power Generation rather than a strategic approach.
- Nuclear power was on the list to investigate, the Government had said that they wanted small nuclear power stations and would be looked at some point.
- Sewage sludge could be looked at and can be mixed into food waste.
- Food waste was the direct organic matter, sewage sludge could be. Regulatory framework had previously not allowed the matters to be mixed.
- You were able to put an AD next to a Sewage Plant, and a partnership would be arranged. It would depend on the operating model. The water industry were interested in this type of market.
- A good example of co-location was the GENeco facility just outside of Bristol, which had a sewage treatment works producing sewage sludge which they

digested, and they also imported food waste that was digested, and they have a shared biogas with them, they were not mixing the wastes, but they were sharing assets.

- The ADs needed a good food stock to keep at 100% operation. If this was done wrongly then large amounts of money could be lost.
- The expertise of running an AD was extremely important.
- Councillors would be on the receiving end of any complaints for residents.
- There wasn't thought to be a requirement for a zone to be around an AD plant.
- In the water industry there were many houses and housing developments right next to water treatment plants.
- It was important that residents had knowledge and information, so the community were on board with a potential scheme.
- Engaging with the local community and stakeholder was fundamental to any major operation.
- There were already water and sewage works in the Borough.
- It was important for the Council to be forward thinking.
- A lab scale digester could be built, there was no restriction on scale, but on the economy of scale. The costs of a smaller plant would exceed the amount of energy produced.
- There were plenty of people who were able to design, build and operate AD facilities and was produced all over the world.
- Further analysis and options would need to be investigated.
- Directly supplying properties would be a more complicated procedure.
- The officer recommendations did not cement and commit the Councils resources but communicated that the Council would welcome an AD into the Borough.
- Green hydrogen was one of the many resources that could be recovered from either sewage sludge or organic wastes.
- There were various pathways to recover hydrogen from sewage sludge or organic wastes, the hydrogen economy in the UK was still young and there was a limited scale of opportunity.
- Previously the Council had helped and supported Grudens to allow the plants at Lakeside to be built, and potentially a similar arrangement could be sought for an AD plant.
- 70,000 tonnes alone were going to Lakeside from Bracknell Forest alone.
- re3 had spoken around the opportunities surrounding AD, that dialogue was ongoing. The re3 partnership shared household waste facilities and if anyone could bring on a new asset, then it would be looked at by the partnership.
- Other councils located close to Bracknell Forest could also be spoken with.
- Food Waste collection was starting in March 2022.
- Scale was really important, for how much return you could get for your investment.
- Commercial terms were negotiated for food waste, and these were very strong compared to other local authorities.

The Chairman thanked all those for contributing to the discussion and confirmed that the Advisory Panel would like to move forward to the next stage.

33. **Feedback from the Climate Change Advisory Panels visits**

The Climate Change Advisory Panel provided positive feedback on their recent visits.

It was commented by the Chair that the Grudens trip was fantastic and that he was still confused to why Heathrow didn't want to use their energy.

Councillor Mrs Hayes, confirmed to the group that she'd like to take the Advisory Panel on another trip to visit the London Road site.

34. **Date of Next Meeting**

The date of the next meeting of the Climate Change Advisory Panel was 9 March 2022.

CHAIRMAN

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