Application Ref 15/00997/F Utilities Site And Deal Ground Norwich

I am writing to object to this planning application on behalf of Biofuelwatch.

(www.biofuelwatch.org.uk)

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[address added]

PRELIMINARY COMMENTS

My objections primarily relate to the biomass-fuelled Energy Centre aspect of this application:

1. The development worsens rather than mitigates climate change because it generates higher levels of greenhouse gases than the cleanest forms of renewable energy.

2. It damages the rural economy by competing for limited supplies of straw already used by the pig farming industry.

3. It damages the rural economy by encouraging the removal of more organic matter (straw) from farmland, accelerating the erosion and deterioration of soil. The recent Parliamentary POSTNote No. 502 'Securing UK Soil Health' states:

"2015 is the United Nations International Year of Soils. Soils underpin the global food system and regulate water, carbon and nitrogen cycles but are subject to pressures from population growth and climate change. In England & Wales, soil degradation costs around £1bn per year. (…)."

And *"cultivation and removal of crop residues can reduce the OM content of soil. This impairs most soil functions, reduces fertility and water holding capacity and leaves soils vulnerable to erosion and compaction. "*

4. It worsens air quality in Norwich, where an AQMA has been declared

5. Adverse visual impacts on the city: The energy centre smokestack is 90m high and is within 150 metres of a City Gateway.

6. The site is located within flood risk zones 2 and 3 (based on the level2 Strategic Flood risk assessment)

7. Potentially adverse economic impacts on local residents and businesses: This government's policy is to scale back financial support for energy systems of this type. Changes have already been made to the Renewable Obligation which rewards biomass electricity. New schemes seeking support will have to compete in the Contract for Differences action arrangement. It is very probable that the electricity generated by the energy centre will not attract subsidies, meaning higher costs for local residents and businesses if they are customers of Generation Park for heat, power or both.

SPECIFIC POINTS OF OBJECTION ON PLANNING GROUNDS

1. **THE DEVELOPMENT WILL WORSEN AIR QUALITY IN THE SURROUNDING AREAS.**

Norwich City Council adopted Local Plan Policy DM11 requires that development take account of the air quality action plan:

"Environmental hazards

Air and Water Quality
In areas where an Air Quality Management Area (AQMA) has been declared (under the Environment Act, 1995), development which is likely to have an impact on air quality will be required to take particular account of the air quality action plan for that area. Where the action plan identifies poor or deteriorating air quality as an issue in localised areas within the AQMA, development will be required to incorporate measures which will mitigate against the effects of existing or potential further deterioration in local air quality through design, density, disposition of uses or travel demand management as appropriate, on a case-by-case basis."

It is undeniably the case that this development will add to air pollution in the AQMA and will delay or prevent the Council achieving statutory objectives for air quality, and most importantly ensuring residents and visitors to Norwich are not subject to a health-damaging environment.

2. **THE PROPOSED DEVELOPMENT WILL CONTRIBUTE ADVERSELY TO CLIMATE CHANGE.**

This is contrary to the adopted Local Plan Policy DM1 – Achieving and delivering sustainable development

"Subject to the detailed policies which follow, development proposals will be expected (through their design, configuration, visual appearance, location, means of access and spatial and functional relationship to existing uses and facilities), to:
- *protect and enhance the physical, environmental and heritage assets of the city and to safeguard the special visual and environmental qualities of Norwich for all users;*
- *help to combat the effects of climate change and achieve national and local carbon reduction targets* ***by making the most efficient practicable use of resources****"* (emphasis added)

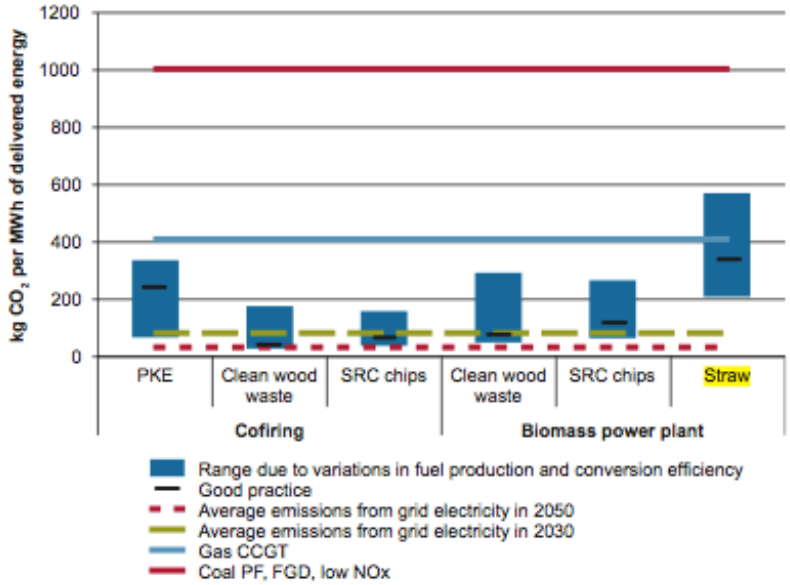
By burning straw and wood, the Biomass Energy Centre will create carbon emissions at a much higher level than other cleaner forms of energy generation (wind, solar and marine). Pre-combustion emissions arise from the collection and transportation of hundreds of thousands of tonnes of straw to the Pelco pelletisation plant in Ely, the energy required for pelletising the straw, and their subsequent transport to Norwich. Additional greenhouse gas emissions will arise if increased baling of straw results in soil carbon losses and in a greater requirement for fossil-fuel-based fertilisers.

The UK Bioenergy Strategy of 2012 classes bioenergy from straw as having particularly high CO2 emissions because straw is so bulky and transporting it uses a disproportionate amount of fuel.

See www.gov.uk/government/uploads/system/uploads/attachment_data/file/48337/5142-bioenergy-strategy-.pdf

On page 66 of this document a graph (Fig 14) is presented showing carbon emissions from a number of different biomass fuels

Figure 14: Greenhouse gas emissions from producing and using different biomass fuels to generate electricity, best to worst practice



Source: Environment Agency
Notes: Emissions included in the results are from: the growth of the crop or production of by-product, transport, processing and conversion to energy. The ranges shown are the result of expert judgements about a number of the values used in the BEAT2 model. Best and worse practices represent extreme but feasible values for factors such as the distance the fuel is transported. Good practice represents a high level of performance considered to be within the capabilities of plants operating today.
Abbreviations: PKE Palm kernel expeller, SRS Short rotation coppice, CCGT Combined Cycle Gas Turbine, PF/FGD Pulverised fuel with Flue gas Desulphurisation and technology to lower emissions of oxides of nitrogen.

Straw is described as the worst type of biomass fuel based on the UK government's methodology for accounting for biomass lifecycle emissions of greenhouse gases. Its carbon intensity is given as between approximately 200 and 575 kg CO2 per MWh of delivered energy. Good practice is shown as approximately 350kg CO2 per MWh. The graph also gives the targets for the carbon intensity of grid electricity in 2030 - below 100, and 2050 - below 50 kg CO2 per MWh.

Burning straw for electricity even at good practice levels will have a carbon intensity at least 350% higher than the targeted level for the UK in 2030.

It evidently is not low carbon and using it in Norwich will be contrary to the principles behind policy DM1 of the local plan.

3. **THE PROPOSED DEVELOPMENT WILL DAMAGE THE RURAL ECONOMY.**

National Planning Policy Framework (NPPF) requires that the planning system as a whole supports and does not disadvantage the rural economy. It says:

3. Supporting a prosperous rural economy

28. Planning policies ***should support economic growth in rural areas in order to create jobs and prosperity*** *by taking a positive approach to sustainable new development. To promote a strong rural economy, local and neighbourhood plans should: ● support the sustainable growth and expansion of all types of business and enterprise in rural areas, both through conversion of existing buildings and well designed new buildings; ● promote the development and diversification of agricultural and other land-based rural businesses; ● support sustainable rural tourism and leisure developments that benefit businesses in rural areas, communities and visitors, and which respect the character of the countryside. This should include supporting the provision and expansion of tourist and visitor facilities in appropriate locations where identified needs are not met by existing facilities in rural service centres; and*
● promote the retention and development of local services and community facilities in villages, such as local shops, meeting places, sports venues, cultural buildings, public houses and places of worship.

The use of very large quantities of straw at the proposed Generation Park biomass energy centre will drive up costs for the current users of harvested straw – primarily the pig farming industry – by competing for a limited resource.

Generation Park Norwich claim that significant quantities of additional straw are 'available', but this is incorrect: the studies they cite say that additional straw could become available if cereal farmers decided to change their longstanding practice of incorporating straw into their soils. There is no evidence that large numbers of cereal farmers are prepared to make such a choice and thereby risk depleting soil carbon and requiring large quantities of artificial fertilisers. This became evident during steep rises in straw prices following extreme weather events in 2008 and 2011.

The pig industry has objected to other straw burning power station proposals in the East of England on these grounds. It is very unlikely that this development will enhance the rural economy; it is more likely that it will damage it.

4. **THE PROPOSED DEVELOPMENT WILL INCLUDE A HIGH STRUCTURE IN PROXIMITY TO A CITY GATEWAY.**

The Biomass Energy Centre includes a 90m high chimney or flue - the recommended minimum height for air pollution dispersal purposes. It appears that this will be sited approximately 150m from the City Gateway at Norwich railway station.

Local Plan Policy DM3 – Design principles requires that

"Significant weight will be given to the following design principles in assessing development proposals:
a) Gateways
Major development within 100m of the main gateways to the city, as defined on the Policies map, will only be permitted where its design is appropriate to and respects the location and context of the gateway.

*3.6 The gateways identified in this plan are firstly those around the fringe of the city which demarcate the Norwich urban area from the surrounding countryside. Secondly those leading into the city centre assist in welcoming visitors to the centre and signifying its functional importance. The city centre gateways often coincide with the position of historic gateways to the old walled city of Norwich. Gateways may be marked by appropriately designed landmark buildings: for the purposes of this policy a landmark is defined as "a building or structure that stands out from its background by virtue of height, size or some other aspect of design". **However, because of the particularly sensitive townscape of the historic city it is considered that excessively tall or large buildings would be inappropriate in most gateway locations**."* (emphasis added)

5. **THE DEVELOPMENT SITE IS AT RISK OF FLOODING**

According to the Site Visit Report prepared for the planning committee by the Head of Planning, the site is located within **flood risk zones 2 and 3** (based on the level2 Strategic Flood risk assessment)

NPPF Technical Guidance defines Flood risk Zones 2 and 3 as:

Flood Zone 2 – Medium Probability

Definition
This zone comprises land assessed as having between a 1 in 100 and 1 in 1,000 annual probability of river flooding (1% – 0.1%), or between a 1 in 200 and 1 in 1,000 annual probability of sea flooding (0.5% – 0.1%) in any year.

Appropriate uses
Essential infrastructure and the water-compatible, less vulnerable and more vulnerable uses, are appropriate in this zone. The highly vulnerable uses are only appropriate in this zone if the Exception Test is passed.

Flood Zone 3a – High Probability

Definition
This zone comprises land assessed as having a 1 in 100 or greater annual probability of river flooding (>1%), or a 1 in 200 or greater annual probability of flooding from the sea (>0.5%) in any year.

Appropriate uses
The water-compatible and less vulnerable uses of land are appropriate in this zone. The highly vulnerable uses should not be permitted in this zone. The more vulnerable uses and essential infrastructure should only be permitted in this zone if the Exception Test is passed. Essential infrastructure permitted in this zone should be designed and constructed to remain operational and safe for users in times of flood.

Flood Zone 3b – The Functional Floodplain

Definition

This zone comprises land where water has to flow or be stored in times of flood. Local planning authorities should identify in their Strategic Flood Risk Assessments areas of functional floodplain and its boundaries accordingly, in agreement with the Environment Agency. The identification of functional floodplain should take account of local circumstances and not be defined solely on rigid probability parameters. But land which would flood with an annual probability of 1 in 20 (5%) or greater in any year, or is designed to flood in an extreme (0.1%) flood, should provide a starting point for consideration and discussions to identify the functional floodplain.

Appropriate uses
Only the water-compatible uses and the essential infrastructure listed in table 2 that has to be there should be permitted in this zone. It should be designed and constructed to:

- *remain operational and safe for users in times of flood;*
- *result in no net loss of floodplain storage;*
- *not impede water flows; and*
- *not increase flood risk elsewhere.*

Local Plan Policy DM5 (Flooding) requires that:

"All development proposals will be assessed and determined having regard to the need to manage and mitigate against flood risk from all sources. ***Development proposals must be supported by the relevant flood risk assessments and show that (where necessary) alternative sites of lower flood risk have been assessed, adopting a sequential approach to site selection according to the requirements of national policy and standing technical advice which supports it.*** (emphasis added***)***

It is not clear from the application if a full sequential approach to site selection has been followed.

If the Biomass Energy Centre is indeed to be sited in an area assessed as flood risk 3a, this would appear to be a most inappropriate location given it is likely to be highly vulnerable to flood damage.