

Paper from Cllr Barnell to support the Proposal form on Bio Energy Industry

The Bio Energy Industry

How does this industry work?

Bio Energy is rapidly expanding Industry in both Devon and the South West as a whole. At its hub are a network of large AD (Anaerobic Digester) Plants located in rural settings.

Anaerobic Digestion (AD) is a natural process in which micro-organisms break down the organic matter found in biomass waste (such as sewage sludge, animal manure, slurry, and waste food) and energy crop feedstocks (such as maize, miscanthus and straw) in the absence of oxygen, to produce biogas (a mixture of methane and carbon dioxide) and digestate (a nitrogen rich fertiliser). The biogas can be burned directly in a gas boiler to produce heat or burnt in a combined heat and power unit to produce heat and electricity. Alternatively, the biogas can be cleaned to remove the carbon dioxide and other substances, to produce biomethane. This can be injected into the national gas grid to be used in the same way as natural gas, or used as a vehicle fuel.

AD Plants are fed by a complex interconnected supply chain of biomass product that is often transported regionally using HGV and large tractor/Trailer combinations. As well as energy the AD plants produce an important subsidiary digestate by-product that requires a network of large storage lagoons and a distribution chain involving farms willing to buy the product for spreading on the land. All this again requires a large geographic distribution network involving routine transportation either by large tanker lorries or tractor trailer combinations

The network of different companies involved in the developments of AD plants and digestate storage lagoons gives the initial impression of a diverse and competitive industry based on local farming businesses. However In Devon the set up costs of this industry appear to be supported and funded primarily by a single London based Venture Capital company. The activities and interests of this Company are extended via the creation of a confusing assortment of localised Joint Investment Companies that either bring in additional investment from landowners and farmers and/or are responsible for the day to day operation of the plants.

This is all qualitatively and quantitatively different to small scale AD plants based on local farm activity and product.

Isn't the Bio Energy Industry green?

The Bio Fuel business is a rapidly growing regional and national industry based on Govt. "green subsidies" (e.g. energy tariff subsidies, subsidies for monocultural fuel crops like Maize). Both Bio-Gas and the feedstock required for its production are both heavily subsidised by the taxpayer as so called "green" energy.

The Industry requires the transportation of large volumes of bio-fuel from a widespread network of growers to energy generating AD (Anaerobic Digester) plants. The distribution of large quantities of waste "digestate" is then sent to a network of storage lagoons across Devon. From there it is distributed to a wider network of local farms for use on the land. All

this involved thousands of, often lengthy, journeys involving large HGV's and Tractor/Trailer Combinations, all powered by very large diesel engines.

Isn't this Industry Regulated?

There is no national policy on the regulation and development of the Bio Energy Industry. There is a plethora of complex and sometimes overlapping planning and regulatory responsibilities and therefore a history of confusion and the passing on of responsibility between regulatory agencies. To date it has not been possible to establish and implement consistent regulatory policies across Devon. Neil Parish MP has had discussions with the Chief Executive of the Environment Agency and asked for legislation to give more powers to the EA.

How have Planning Authorities responded?

The Bio energy Industry actively promotes the widespread confusion that exists between its activities and small scale AD plants and digestate distribution based on local farms. The latter are clearly a legitimate and largely beneficial approach to recycling bio-mass and producing green energy. The Bio Energy Industry uses this confusion to convince Planning Authorities and local authority members into believing that their industry is eco-friendly diversification on the local farm .

Initial planning applications are usually submitted by the Bio Fuel industry on the basis of the same narrative, namely that the given enterprise will be limited in scope, be a natural extension of local agricultural activity, and, therefore, be based on one local farm or a small number of neighbouring farms. The argument is that the enterprise, is "stand alone" and is about improving the efficiency and productivity of the local Farm or farms.

In considering the individual planning applications relating to the Bio Energy industry Local Planning Authorities have tended to accept, uncritically, the industry's own narrative about the green credentials of the business and its roots in local agriculture and farming. Planning authorities have sought refuge in allowing the definition of this activity as "agricultural" within the National Planning Policy Framework.

This permits Planners to take a piecemeal approach to the planned expansion of interconnected and well organised industry being superimposed on the countryside. It obviates the need to collaborate with neighbouring Planning Authorities in the implementation of onerous Environmental Impact Regulations (2017) that apply to Industrial concerns like Bio Energy Generation. In turn this results in the impacts of the industry, especially the impact of heavy goods traffic on local communities, either being ignored or downplayed as "agricultural".

This has been made worse by the part played by DCC Highways who have not yet recognised the limitations of its expertise in understanding the impacts of large increases in the volumes of road traffic often through small rural communities. The Department's staff do not appear to recognise that the harm caused by this traffic is not limited to the physical suitability of, and/or damage to, the roads nor even the risk of accidents but is mostly about the chronic social harm to village life and the social costs to local residents. Important

impacts therefore not recognised or assessed as part of the planning process and Planning Policies referring to such harm are not applied or implemented.

As the industry has grown so has the impact of this industry on local communities and the road network, particularly in rural areas. Planning Authorities have sometimes attempted to limit the impact of this industry by setting planning conditions that attempt to determine the volume of product, transport routes and type of vehicle used to transport bio-fuel crops and the waste digestate from AD plants and Lagoons to farms. In practice enforcement of these conditions has usually proved impossible, partly because of the remote locations of the AD Plants and Lagoons and partly because Local authorities lack the resources and the practical ways of monitoring activity.

Speaking in February 2021 at a Scrutiny Committee meeting of Mid Devon District Council, Neil Parish MP is recognised the impacts on local communities, in particular the transportation of feedstuffs going into the industrial-scale AD plants and the liquid digestate coming out as a by-product.

We understand he said, "ADs are getting bigger and bigger and getting out of all proportion. While they were a good thing in using them for waste to produce gas or electricity, what you have now is a huge amount of crop being used in them and they are becoming vast. In becoming so big they are moving stuff around all of the time. There are problems all over the place. I am trying to collate all the problems across the country to get the Government to take some action."

What can be done locally in Devon?

We are proposing:-

1. An inter-authority inquiry into the Bio-Energy Industry in Devon led jointly by local authority Scrutiny Committees.
2. This inquiry to be jointly commissioned by the Scrutiny Committees of those Devon Planning Authorities that are willing to take part. This work is not something that can be done effectively by a single authority.
3. The Inquiry examine the business structure, funding, history and impacts of the Bio Energy Industry in Devon including the history of Planning applications.
4. The Inquiry examine the adequacy of the the national and local framework of regulation and policies and make recommendations for changes to that may be required including:-
 - local and national planning arrangements and policies, including the possibility of joint planning approval and enforcement.
 - regulation of environmental and health impacts
 - highways management policies
 - energy tariff arrangements
5. The work of commissioning and overseeing this Inquiry is led by a committee of elected members chosen from each of the participating authorities.

