

Anaerobic Digestion



The top 10 risks to consider when
setting up and running your plant

In 2010, the British government threw its weight behind the anaerobic digestion (AD) sector, arguing that turning the 10.2 million tonnes of waste produced in the country each year into energy was a “no brainer”.¹ This is no surprise; the UK has committed to meeting 15% of its energy needs through renewable sources by 2020.² And, biogas is not only clean and green, it’s also a way of recycling organic waste that might have otherwise gone to landfill, helping restore nutrients and organic matter to soils and improve air quality.

But it’s also an uncertain time for AD. High set-up costs mean there are only a handful of operations in the UK – just 650 as of 2019. It may become increasingly difficult to push this number up when government subsidies for AD and biogas plants come to an end in 2020.

Because it’s such a small sector, it’s already an expensive area to operate in. There aren’t enough insurance policyholders spread over a variety of insurers to subsidise the cost of the claims being made. This means the price of cover and excesses is being pushed up. Claims are also consistently high – usually in the six figures, and some going into seven.

As a result, it’s vital that the entire sector understands and mitigates risks. Engaging with insurers early on enables them to review construction plans and assess operational assets so they can offer risk improvements and be happy to provide cover. Even if your plant has been running for some time, still give insurers plenty of time to assess it. Doing so can help minimise your own risks in finding suitable cover for your asset and people and enable insurers to offer the right cover at the right price.

The UK has committed to meeting 15% of its energy needs through renewable sources by 2020

1. <https://www.gov.uk/government/news/anaerobic-digestion-realising-the-potential-2>

2. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/47871/25-nat-ren-energy-action-plan.pdf

Four stages of risk

If you own or manage an AD plant, there are four stages at which you need to consider your risks and liabilities:

Stage 1: leasing and preparing your site

Stage 2: building, commissioning and testing the plant

Stage 3: operating your facility

Stage 4: decommissioning your facility

Insurers may cover individual risks or provide a customised package that insures a range of events. At each stage, it’s essential to identify all of your potential risks, the steps you can take to avoid them and how to respond if something goes wrong.



10 factors to consider

1. Navigate the site purchase

When: Stage 1

Risks: When selecting and leasing a site, be mindful that there may be restrictions on the land's ownership and use. For example, it may be subject to covenants; limits on rights of way; or access restrictions for both vehicles and pedestrians. There may be missing documents or disputes over the title. Also, be aware that after planning permission is granted, third parties can call for a legal review to challenge the decision.

What to do: Complications and irregularities with the land title and site restrictions should be assessed and addressed before buying the land. Such risks can normally be insured against if an alternative solution is not available. When it comes to legal challenges, you should consider the grounds on which a review may be launched. It's important to prepare for legal fees and costs you may incur in this process, and the potential delay it could have on your project.

2. Manage the construction process

When: Stages 1 and 2

Risks: Problems may occur while constructing buildings, erecting plant equipment, and commissioning and testing the facility. This can result in damage to equipment, plant and structures, which may lead to delays in the construction of your plant. Damage to third party properties, including the environment, as well as injury to contractors and the general public are also potential risks during these stages.

What to do: The responsibility for various risks during construction, and their insurance, is normally established in the agreement with the main contractor and suppliers of key plant equipment. When awarding the contract, make sure the firms are reputable, experienced, licensed where required and financially sound. Also make sure they offer appropriate warranties and performance bonds, particularly as your lender may require assurance that the contract will be completed if the contractor goes out of business. As the plant owner, you may want to consider an owner-controlled insurance programme that protects your project. This offers owners greater control, providing bespoke cover continuously from the initial design stage of the project through to practical completion, with a single point of contact covering all insurance requirements.

3. Purchase and protect your equipment

When: Stages 1, 2 and 3

Risks: The equipment and parts you buy could be damaged when being erected and tested or when travelling to you – either in transit or storage. To protect yourself against the latter, you should consider marine and transit cover. Damage at these stages could delay the start date of your plant, causing an income loss, asset damage and additional expenses, including increased costs. In operation, equipment could be affected by unexpected events such as fire, storms, theft, vandalism, breakdown and impact. There's also a risk that the equipment you have purchased isn't suitable for your plant.

What to do: When buying the equipment, be sure your needs and requirements around plant performance are understood by providers and that they have suitable insurances such as professional indemnity. It also pays to check your reputable supplier is capable of providing support later on if needed. Ensure you have the correct warranties from the manufacturer to cover latent defects, that your purchase complies where needed with relevant standards and is easy to maintain. Also, make sure you fully understand your equipment, follow the manufacturer's recommendations on how to use and look after it. Appropriate security and safety measures can help reduce the risk of your plant and equipment being damaged and stolen. Familiarise yourself with the conditions and warranties in your insurance policies to help you avoid the risk of invalidating cover.





4. Disaster recovery and continuity planning

When: Stage 2, 3 and 4

Risks: If there's a breakdown, damage, disaster or security breach, your plant may be out of service for some time – typically 12 months after a major incident, and potentially longer to get back to similar productivity levels before the event. Depending on the nature of the incident, you may need to involve the Health and Safety Executive or Environment Agency, which could extend the interruption further. During this time your costs may increase if you have to find a way around the problem and buy alternative materials or back-up equipment.

What to do: To limit an incidents impact, it's vital to have a business continuity plan. This should outline how you would manage resources, health and safety, analyse information, communicate with employees and make decisions after an emergency or incident. It should also define your processes for evacuation, accountability and shelter during a crisis, as well as how facilities, equipment and records will be protected. To help the recovery process, you should have a strategy for resuming usual operations during and after a crisis, including how equipment will be replaced. You should also consider how you will repair your relationship with the surrounding community through effective, transparent communication and liaise with suppliers to make sure you have a pipeline of equipment and materials to resume work quickly. Insurance can cover the replacement of items and additional costs of working in the event of a disaster, as well as the loss of revenue or profit during this time.

5. Safeguard the environment

When: All stages

Risks: AD plants deal with potentially hazardous matter, so they pose a risk to the surrounding environment if they malfunction or if the correct systems and preventative measures are not implemented. This could have an impact on neighbouring properties, the surrounding environment, habitat and ecosystems. It could also interrupt your activities, cause you to incur Environment Agency enforcements and fines and attract adverse publicity to your plant and the wider industry.

What to do: Many lenders now insist that plant owners obtain pollution and environmental liability insurance. Such insurance would cover legal costs if a plant generates pollution or causes damage to the environment or local biodiversity. The costs of cleaning up your site and those of third parties, site inspections, any testing required, reimbursement for loss and business interruption can all be included. To cover the kind of damage that an AD or biogas plant can cause, a minimum indemnity limit of £1m is recommended, but it's wise to consider an even higher limit as the damage could be greater. It's worth noting insurance will not cover fines. To reduce the risk of environmental damage, you should assess environmental risks before construction and design the plant to take these into account. You also need to have up-to-date appropriate site and staff procedures, as well as an environmental management plan and crisis response plan. This plan needs to take into account how long you may need to wait for help to arrive in the case of a leak, for example.

6. Survive a cyber attack

When: All stages

Risk: Cyber attacks are increasingly common and our reliance on online systems means a breach can compromise the running of your entire plant. Your site may be held to ransom or there may be a security breach in your computer systems. The attack could also come from third party companies that access your site and from your own plant, attacking third parties.

What to do: Since May 2018, "operators of essential services" in the UK – critical infrastructure such as energy and water – are legally obliged to improve their cyber-security to specific standards set by the EU's Network and Information Systems Directive. In the case of a security breach, you'll need to identify the problem, quarantine it and then get all your systems back up and running. A cyber insurance policy can help cover these costs as well as connect you with the experts you'd need. In addition to data loss and the costs of dealing with the incident, interruption to the business is likely. You may need separate cover, such as business interruption to help recover any lost revenue/profit as it may not come under "operational" insurance if there hasn't been any physical damage. You may also be held liable for any access gained to third party systems via your own. When thinking about your plant and its cyber exposures, make sure you have the right systems and protocols in place. And, question if third parties need the level of access they're requesting and that they have their own suitable measures of cyber security.



Looking for and deciding upon Renewable Energy Insurance is usually a testing process, however, Marsh Commercial have provided a first rate service and I would be happy to recommend them. I am extremely happy with the policy Jelf has provided and was particularly impressed with the knowledge and expertise demonstrated in such a specialised field.

Paul Bille, Director
Vale Green Energy Limited

7. Support your directors

When: All stages

Risks: Your directors are personally responsible for many elements of your plant's functioning. If any of them are believed to have breached a regulation or broken the law they may face investigation or even prosecution, especially if the breach leads to an accident or injury.

What to do: It's important that all directors receive and understand training in every relevant aspect of their business, from health and safety to employment matters. If an incident does occur, as well as managing the legal side of things, you may also need to manage the public perception of the crisis. Hiring a PR company to make sure the incident does not affect your business' reputation in the longer term could be considered. Management liability portfolio protection can protect directors and their assets, while corporate legal liability cover protects the limited company itself. Meanwhile, employment practices liability insurance will cover claims from employees over unfair dismissal, discrimination and other similar events. Introducing workforce training and better procedures and technology can mean fewer incidents that might lead to a dispute and a stronger defence if one does occur. Good record-keeping can ensure there is evidence to support your case and identify those responsible for the incident, as well as making sure any claims you do have to accept are fair.

8. Pre-empt and protect against legal matters

When: All stages

Risks: There are several points at which you may need legal support – for example, if you have a disagreement with an employee, public body or third party. These could lead to a dispute, claim or out-of-court settlement.

What to do: Legal defence insurance typically pays up to £100k per claim and is designed to meet the needs of SME businesses that may employ staff but have limited or no in-house legal expertise. It can help you get legal advice through a telephone service as early as possible, before a problem such as an employment tribunal or commercial contract dispute arises. If a more serious legal problem occurs, it will cover legal representation and court expenses. Generally, such insurance tends to cover legal defence, property protection, tax protection, and could also include statutory licence appeals, contract disputes and debt recovery. It will typically not help with issues that started before you bought the policy, legal costs paid out before your claim was accepted and civil claims where the likelihood of success is evaluated as being less than 51%.

9. Survive a cyber attack

When: All stages

Risk: Cyber attacks are increasingly common and our reliance on online systems means a breach can compromise the running of your entire plant. Your site may be held to ransom or there may be a security breach in your computer systems. The attack could also come from third party companies that access your site and from your own plant, attacking third parties.

What to do: Since May 2018, “operators of essential services” in the UK – critical infrastructure such as energy and water – are legally obliged to improve their cyber-security to specific standards set by the EU’s Network and Information Systems Directive. In the case of a security breach, you’ll need to identify the problem, quarantine it and then get all your systems back up and running. A cyber insurance policy can help cover these costs as well as connect you with the experts you’d need. In addition to data loss and the costs of dealing with the incident, interruption to the business is likely. You may need separate cover, such as business interruption to help recover any lost revenue/profit as it may not come under “operational” insurance if there hasn’t been any physical damage. You may also be held liable for any access gained to third party systems via your own. When thinking about your plant and its cyber exposures, make sure you have the right systems and protocols in place. And, question if third parties need the level of access they’re requesting and that they have their own suitable measures of cyber security.

10. Decommissioning your plant

When: Stage 4

Risk: At the end of its life, your AD plant will need to be decommissioned safely, which is a phase you need to prepare for in advance.

What to do: It’s crucial to bear in mind that toxic and flammable gases are involved, so make sure that anyone undertaking the work is qualified and certified to handle these dangerous substances. Decommissioning the plant involves removing and disposing of organic material, storage systems and equipment, as well as preparing any elements of the system for reuse. This all needs to be done while addressing ongoing environmental and safety risks. Decommissioning has several steps; firstly, you need to identify and address potential safety risks, then manage materials, then dismantle and/or demolish structures and equipment and lastly restore the site. Ensure that all safety alarms and systems are functional, that all gas and electrical systems are turned off, and that all pipes have been vented. Make sure you are sufficiently insured and prepared for anything to go wrong.

Checklist

This information should help you assess and mitigate the risks involved in setting up and running an AD plant. The checklist below is by no means exhaustive but will help put you on the right path to ticking all the right boxes when developing and running your plant.

| Task | Need some guidance? Have a look at stage... | Task completed? |
|---|---|-----------------|
| Engage with insurers to get feedback on your plant design and loss mitigation controls to make sure your plant is insurable | Stage 1 | |
| Carry out due diligence on the site and project | Stage 1 | |
| Identify nearby risks such as a water body, third-party property or footpaths | Stage 1 | |
| Choose the right supply chain and team | Stage 1 | |
| Manage the building process to ensure all systems are safe and compliant | Stage 2 | |
| Put in place a maintenance schedule and a plan for repair and replacement | Stages 2 and 3 | |
| Make a recovery plan to help you get back on your feet | Stages 2 and 3 | |
| Give all employees thorough, up-to-date training | Stages 2, 3 and 4 | |
| Make sure all your risk management and environmental documentation is up to date and communicated to all staff | Stage 2, 3 and 4 | |
| Make a disaster response plan and a strategy to deal with hazardous material | Stages 2, 3 and 4 | |
| Consider how emergency services would safely and quickly access your site | All stages | |
| Prepare for negative PR to ensure minimal reputational damage after an event | All stages | |

To find out how we can help your business, please call

0333 455 3687

email renewableenergy@marshcommercial.co.uk

or visit marshcommercial.co.uk

This paper is provided for the purposes of general interest and is not intended to apply to specific circumstances. You should obtain specific advice before deciding to act (or not act) on the contents of this paper. This paper does not constitute legal or regulatory advice. We are not qualified to provide, and will not provide, legal or regulatory advice. We recommend that you obtain your own such specific legal or regulatory advice on matters from relevant professional advisers.

marshcommercial.co.uk

This is a marketing communication.

Marsh Commercial is a trading name of Jelf Insurance Brokers Ltd, which is authorised and regulated by the Financial Conduct Authority (FCA). Not all products and services offered are regulated by the FCA (for details see marshcommercial.co.uk/info/terms). Registered in England and Wales number 0837227. Registered Office: 1 Tower Place West, London EC3R 5BU. FP20.255

