

## Humber river basin district: climate change risk assessment worksheet

Name (as on your part A application form): Stanton Energy Limited

Our permit reference number (if you have one):

Your document reference number: 058-003-P

### Risk assessment worksheet for the 2050s

Humber river basin district

You must carry out a climate change risk assessment for any new bespoke waste and installations permit applications if you expect to operate for more than 5 years. Use the [user guide](#) to complete the table. You can add in extra pages if necessary.

Consider how your operations will be affected by the changes in weather and climate described in the table. Consider any changes to average climate conditions that may impact on your operations, for example extreme rainfall.

Also consider:

- critical thresholds - where a 'tipping point' is reached, for example a specific temperature where site processes cannot operate safely
- changes to averages - for example an entire summer of higher than expected rainfall causing waterlogging
- where hazards may combine to cause more impacts

You can add in other climate variables if you wish.

If you have stated on your application form that you do not expect to be operational in 2050, you must still consider climate change risks for the time you do intend to operate. Whilst the variables are for the 2050s, this is an estimated date and you may experience these conditions before then.

This worksheet will sit in your management system. It must appear on the management system summary you submit with your application, even if you do not need to submit the whole risk assessment with your application.

If your pre-mitigation risk score (column D) is 5 or higher, you must complete columns E to H.

Potential changing climate variable	A Impact	B Likelihood	C Severity	D Risk (B x C)	E Mitigation (what will you do to mitigate this risk)	F Likelihood (after mitigation)	G Severity (after mitigation)	H Residual risk (F x G)
1. Summer daily maximum temperature may be around 6°C higher compared to average summer temperatures now.	a) Increased dust – waste types accepted not considered to generate dust  b) Pipework and tank stress	a) 1 b) 2	a) 2 b) 2	a) 2 b) 4	The AD operation is enclosed. The site will store feedstocks on site; however, the feedstocks are not considered to have the potential to generate dust.  Tanks and fuel stores and visually monitored throughout the day and maintained as part of the site's preventative maintenance schedules. If there are any signs of stress or damage, then repairs will be made immediately.	1	2	2
2. Winter daily maximum temperature could be 4°C more than the current average, with the potential for more extreme temperatures, both warmer and colder than present.	No negative impact expected.	1	1	1	No mitigation required as very low risk. Score under 5.	1	1	1
3. The biggest rainfall events are up to 20% more intense than current extremes (peak rainfall intensity)*.	a) Treatment plant may require more capacity or careful management.  b) Surface water drainage system overloaded.  c) Overtopping of bunds.	a) 2 b) 1 c) 1	a) 2 b) 2 c) 1	a) 4 b) 2 c) 1	The site has a sealed drainage system and secondary containment.  The site has a daily housekeeping schedule to ensure that drainage is managed.  Bunds/feedstock storage will be situated within concrete bays and benefit from daily visual inspections.	1	1	1
4. Average winter rainfall may increase by 29% on today's averages.	Surface water drainage system overloaded.	1	2	2	The site has a sealed drainage system and secondary containment.	1	1	1
5. Sea level could be as much as 0.6m higher compared to today's level *.	Inland site. Low impact expected.	1	2	2	The operator will monitor changes to local river levels.  The site has a sealed drainage system and secondary containment.	1	1	1
6. Drier summers, potentially up to 34% less rain than now.	Increased dust – waste types accepted not considered to generate dust	1	2	2	The AD operation is enclosed. The site will store feedstocks on site; however, the feedstocks are not considered to have the potential to generate dust.	1	1	1

Potential changing climate variable	A Impact	B Likelihood	C Severity	D Risk (B x C)	E Mitigation (what will you do to mitigate this risk)	F Likelihood (after mitigation)	G Severity (after mitigation)	H Residual risk (F x G)
7. At its peak, the flow in watercourses could be 30% more than now, and at its lowest it could be 65% less than now.	a) Increased likelihood of flooding  b) Surface water drainage system overloaded.	a) 2 b) 1	a) 2 b) 2	a) 4 b) 2	The operator will monitor changes to local river levels.  The site has a sealed drainage system and secondary containment.	1	2	2

\*Indicates data has come from climate change allowances as part of the spatial planning process. Evidence from your planning submission is acceptable evidence for this worksheet.