

Environment Agency

Response: Ofgem consultation on an extreme weather resilience medium sized investment project from National Grid Electricity Transmission – 17 June 2022

Purpose

We are providing comments as an interested stakeholder to your [consultation](#) on an [Extreme Weather Resilience Medium Sized Investment Project submitted by National Grid Electricity Transmission \(NGET\)](#).

Responses are provided by Jonathan Day, Deputy Director for FCERM Risk Assessment at the Environment Agency to Graeme Barton, Head of Price Control Operations, Ofgem (graeme.barton@ofgem.gov.uk).

Key messages

- It is positive to see that NGET are reviewing and seeking to improve the resilience of their sites to flooding.
- This is important because over 5.2 million homes and businesses in England are at risk from flooding, with 3.2 of these at risk of flooding from surface water (pluvial) flooding. Over two-thirds of properties in England are served by infrastructure sites and networks located in, or dependent on others located in, areas at risk of flooding¹.
- The approach to increase resilience of infrastructure to flooding aligns well with Government policy and national strategy for flooding. On 14 July 2020, the Secretary of State laid the national flood and coastal erosion risk management (FCERM) strategy for England in parliament for 40 working days to enable parliamentary scrutiny. The [FCERM Strategy](#) was formally adopted on the 25 September 2020 and the final version published on gov.uk.

Background briefings

The FCERM Strategy sets out a long-term objective for risk management authorities to work with infrastructure providers to ensure all infrastructure investment is resilient to future flooding and coastal change. The Environment Agency, along with other Risk Management Authorities are working with partners to:

- Put greater focus on providing timely and quality planning advice that helps avoid inappropriate development in areas at risk of flooding and coastal change.
- Leave the environment in a better state by contributing to environmental net gain for new development proposals.
- Ensure that spending on flood and coastal resilience contributes to job creation and sustainable growth in local places.

¹Source: Environment Agency, 2019, Long term investment scenarios, <https://www.gov.uk/government/publications/flood-and-coastal-risk-management-in-england-long-term-investment/long-term-investment-scenarios-ltis-2019>

- Mainstream property flood resilience measures and to 'build back better' after flooding to reduce damages and enable faster recovery for local communities.
- Provide expert advice on how infrastructure providers (road, rail, water and power supplies) can ensure their investments are more resilient to future flooding and coastal change avoiding disruption to peoples' lives and livelihoods.

While it will never be possible to prevent all flooding and coastal change, we all have a role to play in taking action now so that we are ready for what the future will bring. In the face of a changing climate, we need to make our places more resilient to flooding and coastal change, so that when it does happen it causes much less harm to people, does much less damage, and ensures life can get back to normal much quicker.

Consultation question responses

1. Do you agree with our view on the suitability of the needs case proposed by NGET?

- We agree with your view on the suitability of needs to increase flood resilience to individual sites, benefitting the network and the communities they serve.
- It is positive to see that NGET are reviewing and seeking to improve the resilience of their sites to flooding. The approach aligns very well with the [FCERM Strategy](#) which at its heart has the drive to improve resilience of the country to flooding and coastal change.
- The Strategy includes an objective to "Between now and 2050 risk management authorities will work with national infrastructure providers to contribute to more flood and coastal resilient places". We have recently published a [Roadmap to 2026](#) which goes further and commits that "The Environment Agency will work with the telecoms and power distribution sector to share flood and coastal erosion risk information and explore joint investment opportunities to improve the resilience of telecommunication and power distribution assets".
- We note from the consultation document, point 3.6, that you have reviewed the Environment Agency and National Resource Wales surface water flood maps. We would encourage you to undertake this exercise for all sources of flooding and also consider the impacts of coastal erosion on your infrastructure. We also encourage you to review any records of flooding of your infrastructure to ensure all risks are identified for all sites.
- We'd also like to highlight synergies with our Incident Management Strategy and our recent report to Government on climate adaptation under the Climate Change Act 2008 which states that the impacts of climate change are already observable and will inevitably increase significantly due to historic emissions². The report highlights five 'reality checks' that present systemic challenges to national resilience, including the resilience of the energy network:
 1. The Environment Agency alone cannot protect everyone from increasing flood and coastal risks
 2. Climate change makes it harder to ensure clean and plentiful water
 3. Environmental regulation is not yet ready for a changing climate
 4. Ecosystems cannot adapt as fast as the climate is changing
 5. There will be more and worse environmental incidents (such as flooding)

² Environment Agency, 2021, Living better with a changing climate: Report to Ministers under the Climate Change Act, <https://www.gov.uk/government/publications/climate-adaptation-reporting-third-round-environment-agency>

- Major events such as the winter floods of 2015-16 demonstrate the vulnerability of the energy network to climate impacts. For example, flooding of the main electricity substation for Lancaster led to loss of power to 61,000 properties affecting over 100,000 people, with cascading impacts on telecoms, local electronic banking and sales systems, and transport networks³.

2. Do you agree with our assessment of the range of options to meet the needs case?

- The range of options considered appears to be reasonable. However, we have some specific points about options that are not shortlisted and your appraisal of those.
- We encourage consideration (as part of option 3.4) of coordinating plans with our flood and coastal risk management investment programme, where the government is investing £5.2 billion from 2021 in around 2000 new flood defence schemes. This could provide an opportunity to deliver flood resilience in partnership for communities.
- There is sufficient evidence for individual site interventions. There will also be value in considering adaptation at a broader place scale, for instance, not just considering 'defending' the asset but determining where the water can be kept away from it. This could be through either investment in community level sustainable urban drainage schemes or Environment Agency, local authority and water company schemes. This will also have the benefit of reducing local risk to assets and ensuring access routes can remain open for essential maintenance.
- We strongly encourage that future proofing infrastructure for climate change is worthwhile (option 4) as adaptation now will prevent or minimise the likelihood of disruption in the future. Surface water risk is expected to increase with climate change. Recent evidence the Committee for Climate Change suggests that annual damages from surface water flooding will more than double under a 4C rise with a high population growth future. Well planned early adaptation can save money and lives. Making the right investment decisions now will ensure infrastructure is resilient to flooding in the future.
- We will continue to liaise with National Grid Electricity Transmission (NGET) on strategic opportunities for efficient delivery of resilience interventions to their network from all sources of flooding.

3. Do you agree with our minded view of the solution proposed by NGET?

- We have not undertaken analysis on the options so will not comment on the preferred solution, but we agree with the principle of providing site-specific flood resilience to mitigate both direct and indirect impacts of surface water flooding, reduce flood damages and reduce disruption for local communities.
- When final options are designed consideration will need to be given to the impacts on third parties, for example (i) loss of floodplain storage (ii) causing obstruction to floodwater. This is especially the case for localised protection options.

4. Do you agree with our view on NGET's proposed Extreme Weather Resilience MSIP costs?

- We have not undertaken analysis on the proposed costs so will not comment on this consultation question

³ Royal Academy of Engineering, The Institution of Engineering and Technology and Lancaster University, 2016, Living without electricity: One city's experience of coping with loss of power, <https://www.raeng.org.uk/publications/reports/living-without-electricity>