

Consultation on an Extreme Weather Resilience Medium Sized Investment Project from National Grid Electricity Transmission

Subject	Details
Publication date:	18 May 2022
Response deadline:	16 June 2022
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We¹ are consulting on an Extreme Weather Resilience Medium Sized Investment Project submitted by National Grid Electricity Transmission (NGET). We would like views from people with an interest in electricity transmission and distribution networks. We would also welcome responses from other stakeholders and the public.

This document outlines the scope, purpose and questions of the consultation and how you can get involved. Once the consultation is closed, we will consider all responses. We want to be transparent in our consultations. We will publish the non-confidential responses we receive alongside a decision on next steps on our website at [Ofgem.gov.uk/consultations](https://www.ofgem.gov.uk/consultations). If you want your response – in whole or in part – to be considered confidential, please tell us in your response and explain why. Please clearly mark the parts of your response that you consider to be confidential, and if possible, put the confidential material in separate appendices to your response.

¹ The terms 'we', 'us', 'our' refer to the Gas and Electricity Markets Authority (the Authority). Ofgem operates under the direction and governance of the Authority,

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1. Executive summary

1.1. We are consulting on our assessment of the needs case, optioneering and efficient costs for an Extreme Weather Medium Sized Investment Project (MSIP) proposed by National Grid Electricity Transmission (NGET) under its MSIP Re-opener submission made in January 2022.

1.2. The MSIP Re-opener allows the electricity transmission companies to request new funding during the RIIO-2 price control period for projects that meet certain conditions in their licence and cost less than £100m.

1.3. It is in consumers' interests that critical grid infrastructure is resilient to weather related risks. NGET has been requested by the Secretary of State for Business, Energy and Industrial Strategy that its transmission network comply with the flood resilience standard set out in the Engineering Technical Report 138 (ETR138) by the end of RIIO-2. Using an approach aligned with the ETR138 principles to assess flood risks, NGET has identified the need for surface water (also known as pluvial) flood defences at 59 grid sites. NGET's MSIP application is to install flood protections at 33 sites out of the 59 for which it has developed cost estimates. NGET plans to submit another MSIP application for the remaining sites in 2023.

1.4. We recognise the general need for NGET to comply with the flood resilience standard in ETR138 by the end of RIIO-2 and that this will require the installation of flood protection at significant community sites that do not meet the standard. We also consider that NGET has provided sufficient evidence to justify the proposed specific interventions in its pluvial flood defence works plan. Specifically, NGET have made a clear link between the sites' particular vulnerabilities, and the site-specific interventions it is proposing to install. As a result, we are satisfied that NGET's proposed interventions are appropriate to meet resilience standards in the short and long term and to mitigate against interruption of supply.

1.5. We consider that NGET has used a reasonable approach to narrow down the long list of options to get to their option short list. We are also satisfied that NGET has appropriately applied the ETR138 risk-based methodology and a cost benefit assessment to select the preferred interventions at each site. Overall, we are minded-to accept the justification for the localised protection option that NGET has proposed for all 33 sites as we consider this solution is in the interests of consumers.

1.6. We have assessed NGET’s proposed costs for the Extreme Weather Resilience project. Based on our assessment, we consider that NGET’s funding request is not at the efficient level. We are proposing some minor adjustments to the project’s main works costs to fix some calculation errors, and to standardise the unit cost of some works where no rationale was given for using a different unit cost for the same activity. We are proposing to remove a proportion of the preliminary works costs as we consider some of the activities are closely associated indirect activities and are covered by the RIIO-2 opex escalator. We are also proposing to reduce the amount of risk contingency in the allowance from 11% of total contractors’ costs to 7.5% of direct activity costs. This is in line with our RIIO-2 determinations to cap average risk across projects at this level. Lastly, we are not convinced that the additional funding for real price effects is sufficiently justified. Our initial view is that NGET’s analysis underpinning this funding component is incomplete and lacking detail, therefore we have removed it from our proposed funding allowance. We need improved analysis from NGET on the potential RPE impact over the duration of the project to finalise our view on this aspect.

2. Introduction

What are we consulting on?

2.1. We are consulting on our view of needs case, optioneering and efficient costs for an Extreme Weather Resilience MSIP proposed by NGET under their MSIP Re-opener application made in January 2022.

2.2. NGET submitted this project under Special Condition (SpC) 3.14.6(d) of the MSIP Re-opener licence condition to install pluvial flood defences in line with resilience standards for flood risks in the Energy Network Association’s ETR138.

2.3. NGET considers that this MSIP submission² meets the relevant criteria set out both in SpC 9.4 and the RIIO-2 Re-opener Guidance and Applications Requirements.³ We are satisfied that the project and application meet the MSIP Re-opener requirements and a summary of our assessment is in Appendix 3.

Background information on the MSIP Re-opener

2.4. The RIIO-2 price control runs from 1 April 2021 until 31 March 2026. It includes a range of Uncertainty Mechanisms (UMs) that will allow us to assess further funding during RIIO-2 as the need, cost or timing of works becomes clearer. This ensures that consumers fund projects only when there is clear evidence of benefit, and we have clarity on likely costs. These mechanisms also ensure that the RIIO-2 price control has flexibility to adapt as the pathways to Net Zero target become clearer.

2.5. The MSIP Re-opener allows electricity transmission owners to make Re-opener applications during the RIIO-2 price control period for projects that meet certain conditions and cost less than £100m. Projects that meet the criteria will be eligible for consideration and scrutiny by Ofgem to establish the level of efficient costs to be remunerated.

² A copy of NGET’s Extreme Weather Resilience submission can be found on here: <https://www.nationalgrid.com/electricity-transmission/document/140911/download>

³ [Re-opener Guidance and Application Requirements Document \(ofgem.gov.uk\)](#)

Consultation approach

2.6. NGET submitted to Ofgem a proposal for additional funding to install surface water flood defence interventions at 33 sites. Within the application NGET have provided their views on the following:

- the needs case
- the alternative options and the justification for the proposed solution
- the efficient costs for the proposed project.

2.7. Through this consultation we are seeking views on our assessment of NGET's MSIP application and on our minded-to position to approve this proposal for additional funding.

Context and related publications

2.8. This document is intended to be read alongside:

- RIIIO-2 Re-opener Guidance and Application Requirements Document⁴
- NGET Special Licence Conditions.⁵

Consultation stages

2.9. This consultation will run for four weeks and close on 16 June 2022. We will review and publish the non-confidential responses 14 days after the consultation closes and publish our decision in autumn 2022.

⁴[Re-opener Guidance and Application Requirements Document \(ofgem.gov.uk\)](https://www.ofgem.gov.uk/re-opener-guidance-and-application-requirements-document)

⁵ A copy of NGET's electricity transmission licence special conditions can be found here: <https://epr.ofgem.gov.uk/Content/Documents/National%20Grid%20Electricity%20Transmission%20plc%20-%20Special%20Conditions%20Consolidated%20-%20Current%20Version.pdf>

How to respond

2.10. We want to hear from anyone interested in this consultation. Please send your response to the person or team named on this document's front page.

2.11. We've asked for your feedback in each of the questions throughout. Please respond to each one as fully as you can.

2.12. We will publish non-confidential responses on our website at www.ofgem.gov.uk/consultations.

Your response, data and confidentiality

2.13. You can ask us to keep your response, or parts of your response, confidential. We'll respect this, subject to obligations to disclose information, for example, under the Freedom of Information Act 2000, the Environmental Information Regulations 2004, statutory directions, court orders, government regulations or where you give us explicit permission to disclose. If you do want us to keep your response confidential, please clearly mark this on your response and explain why.

2.14. If you wish us to keep part of your response confidential, please clearly mark those parts of your response that you *do* wish to be kept confidential and those that you *do not* wish to be kept confidential. Please put the confidential material in a separate appendix to your response. If necessary, we'll get in touch with you to discuss which parts of the information in your response should be kept confidential, and which can be published. We might ask for reasons why.

2.15. If the information you give in your response contains personal data under the General Data Protection Regulation (Regulation (EU) 2016/679) as retained in domestic law following the UK's withdrawal from the European Union ("UK GDPR"), the Gas and Electricity Markets Authority will be the data controller for the purposes of GDPR. Ofgem uses the information in responses in performing its statutory functions and in accordance with section 105 of the Utilities Act 2000. Please refer to our Privacy Notice on consultations, see Appendix 4.

2.16. If you wish to respond confidentially, we'll keep your response itself confidential, but we will publish the number (but not the names) of confidential responses we receive. We

won't link responses to respondents if we publish a summary of responses, and we will evaluate each response on its own merits without undermining your right to confidentiality.

General feedback

2.17. We believe that consultation is at the heart of good policy development. We welcome any comments about how we've run this consultation. We'd also like to get your answers to these questions:

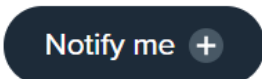
1. Do you have any comments about the overall process of this consultation?
2. Do you have any comments about its tone and content?
3. Was it easy to read and understand? Or could it have been better written?
4. Were its conclusions balanced?
5. Did it make reasoned recommendations for improvement?
6. Any further comments?

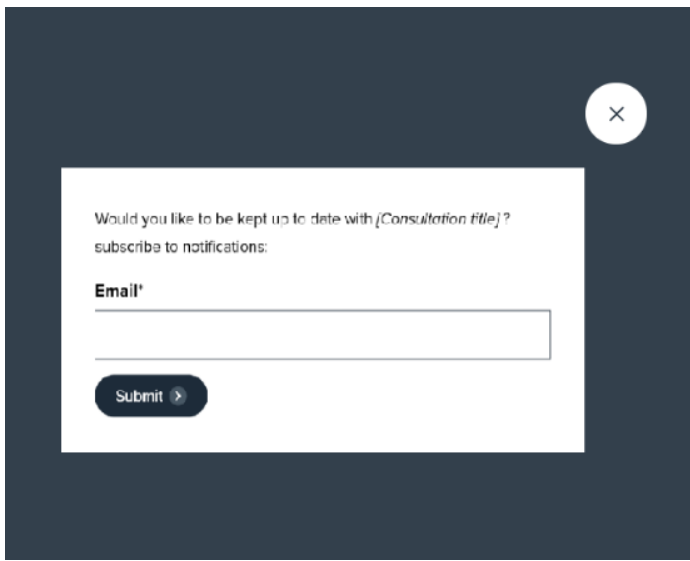
Please send any general feedback comments to stakeholders@ofgem.gov.uk

How to track the progress of the consultation

You can track the progress of a consultation from upcoming to decision status using the 'notify me' function on a consultation page when published on our website.

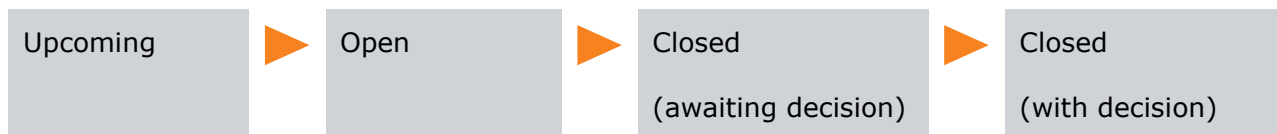
[Ofgem.gov.uk/consultations](https://www.ofgem.gov.uk/consultations).





A screenshot of a dark-themed modal window. In the top right corner, there is a white circular button with a black 'X' icon. The main content area is white and contains the text: "Would you like to be kept up to date with [Consultation title]?" followed by "subscribe to notifications:". Below this is a label "Email:" and a text input field. At the bottom left of the form is a dark blue button with the text "Submit" and a right-pointing arrow.

Once subscribed to the notifications for a particular consultation, you will receive an email to notify you when it has changed status. Our consultation stages are:



3. Needs case for the proposed project

Section summary

In this section, we detail the main issue that forms the needs case for NGET's Extreme Weather Resilience MSIP project.

Questions

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

3.1. The need case for NGET's MSIP application is driven primary by the strategic objective of climate change adaptation to mitigate the increasing risk of extreme weather adversely impacting the UK's electricity network, for example severe flooding at substations. NGET highlight that failure to invest in flood defences at the right level and at the right time could result in devastating consequences for customers, stakeholders, and the end consumer.

3.2. NGET highlight in its submission that the threat of extreme weather has increased (through increased frequency of events and types of flooding) and more information has become available on risks of flooding. As a result, NGET has reviewed the risks to key infrastructure and identified vulnerable grid sites that need to be protected from potential flood events.

3.3. The Energy Network Association produced the ETR138, which sets out recommendations on management of flood risk at network sites. ETR138 was developed in partnership with Department for Business, Energy and Industrial Strategy (BEIS), Ofgem, electricity transmission and distribution network owners. It includes a revised standard that all significant community sites (i.e., those with more than 10,000 connections) are resilient for a 1:1000-year flood event.

3.4. BEIS has requested that larger networks, including NGET, ensure that significant community sites are compliant with the ETR138 standard by the end of the RIIO-2 Price Control (31 March 2026).

3.5. NGET highlights that it is in consumers' interests to protect grid sites from severe flooding because it reduces likelihood of supply interruptions to consumers and improves the overall resilience of the network and security of supply.

3.6. NGET carried out desktop Flood Risk Assessments (FRA) for 180 sites using the Environmental Agency and Natural Resource Wales' flood maps and identified 135 sites at risk of surface water flooding, and likely to require some form of protection and/or mitigation.

3.7. NGET has carried out site surveys on 84 sites and identified that 59 sites will require physical interventions within RIIO-2 to comply with ETR138. NGET's January 2022 MSIP Re-opener application is for 33 sites for which outline designs and cost estimates have been developed. NGET plans to make a further MSIP Re-opener application for the remaining sites in January 2023.

Our initial view of needs case

3.8. We consider there is sufficient justification for the general need for improved flood defences at sites of significant communities and the value to consumers of this work. We support NGET aligning their flooding risk management with the latest recommendations within ETR138, and the expectation from BEIS, that large ETOs ensure that their sites implement the revised ETR138 standards by 31 March 2026.

3.9. Based on our assessment, we consider that NGET has provided sufficient evidence on the need for the individual site interventions proposed in its application. We are satisfied from the supporting evidence provided that the flood protections proposed at each site are linked to site-specific factors that determine whether a grid site is vulnerable and requires protection, as well as the size of that intervention, for example, the expected depth of flood water, the assets at risk and whether these could cause supply issues.

3.10. Overall, our minded-to view of the needs case is that NGET has provided sufficient justification that improving flood protection is necessary to meet ETR138 resilience standards in the short and long term. We set out in the following chapter our view on the optioneering carried out by NGET.

4. Assessment of options and justification for the proposed project

Section summary

We detail our assessment of all the options considered by NGET and its justification for the chosen option(s). We set out our minded-to view of their proposed solution.

Questions

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

Consultation Question 3: Do you agree with our minded-to view of the solution proposed by NGET?

Option selection

4.1. To address the needs case for the Extreme Weather Resilience works, NGET provided an overview of the long list of options considered, along with their variations. These are:

1. Do nothing option
2. Delay/Defer all works until RIIO-3
3. Ensure flood resilience compliance with ETR138 including:
 - 3.1. Localised Protection (NGET's selected option)
 - 3.2. Full Site Protection
 - 3.3. Off Site Protection with 3rd party
 - 3.4. Off Site Protection Green Solution Habitat Creation
 - 3.5. Coordinating with other Site Works
4. Flood resilience to high standard for likely flood risk scenarios in 2080.

OPTION 1: Do nothing

4.2. NGET notes that this option would not ensure compliance with ETR138. Furthermore, although this option would require no initial financial outlay, it would result in an unacceptable level of network risk, with significant potential costs arising from repairs and

lost supply to consumers, if flooding was to occur at any of these sites. Therefore, NGET did not evaluate this option any further.

OPTION 2: Delay/Defer all works until RIIO-3

4.3. Similar to Option 1 above, although Option 2 would require no initial financial outlay, it would not ensure compliance with ETR138 by the end of the RIIO-2 price control period and would also result in an unacceptable level of network risk, with significant potential costs arising from repairs and lost supply to consumers, if flooding was to occur at any of these sites. Accordingly, NGET also rejected Option 2 and did not evaluate it any further.

OPTION 3: Ensure flood resilience compliance with ETR138

4.4. This option will allow NGET to ensure its sites comply with ETR138 at a level which NGET considers to be affordable to consumers. This option contains several sub-options, as follows:

OPTION 3.1: Localised Protection (proposed option)

4.5. Localised protection includes improvements to individual building or assets such as cabinets or marshalling kiosks, through installing waterproof doors, dismantlable slot-in flood barriers or other interventions. NGET outlined that where the water depth of a 1:1000 flood is expected to be less than 900mm at sites, localised protection is typically the most cost-effective intervention. NGET included the localised protection in its option shortlist for the cost benefit assessment of each site.

OPTION 3.2: Full Site Protection

4.6. This option would provide full site protection typically through the construction of a perimeter defence around the entire site. The option typically has a higher capital cost and is most effective in situations where other localised protections are not feasible i.e. where the depth of flood water is expected to exceed 900mm. Although NGET noted that on the basis of its site-specific flood depth modelling, the depth of flood water at all 33 sites is expected to be less than 900mm, it included the full site protection in the option shortlist for the cost benefit assessment of each site.

OPTION 3.3.a: Off Site Protection with third parties

4.7. This option involves working with third parties, such as local authorities or stakeholders to find solutions to mitigate flooding outside of the grid site owned by NGET. NGET discounted this option due to the unacceptable level of uncertainty over the defence effectiveness from catchment wide solutions. Additionally, NGET says, from its experience on works during RIIO-1, that third parties had a general unwillingness to develop solutions to meet the ETR138 resilience standard. NGET did not include this option as part of its cost benefit assessment for any of the sites.

OPTION 3.3.b: Off Site Protection Green Solution Habitat Creation

4.8. This option involves creating a flood storage area on unused adjacent land, or changes to drainage ditches around a site, and has the additional benefit of creating new green habitats. Although this option is NGET's initial preferred option, it noted that it did not have spare land on any of the 33 sites to accommodate this option. As a result, taking this option forward will require the purchase of additional land adjacent to the site, which could add considerable cost to the option. NGET included the green habitat creation in its option shortlist for cost benefit assessment of each site.

OPTION 3.4: Coordinating flood defences with other infrastructure schemes

4.9. This option includes coordinating works with other infrastructure schemes in proximity for a joint approach to mitigate flood risk and could involve a broad range of solutions and costs, depending on the site needs and situation. However, this option was not viable at any of the sites due to a lack of potential other suitable works adjacent to the grid sites. NGET did not evaluate this option as part of its cost benefit assessment for any sites.

OPTION 4: Flood resilience to high standard for likely flood risk scenarios in 2080

4.10. This option involves installing site protection to defend against expected flooding risks in 2080. NGET estimates the cost to be between £36m to £540m, depending on the level of site intervention. NGET considers this option would likely result in overinvestment in defences not required thereby significantly increasing unnecessary cost to consumers. Accordingly, NGET did not evaluate this option any further.

Ofgem’s view of the potential options

4.11. Based on our assessment of NGET’s evaluation of the long list of options, we are satisfied that they have considered an appropriate range of possible alternatives.

4.12. We agree with NGET’s decision to discount the options of Do Nothing (Option 1) and Delay/Defer works until RIIO-3 (Option 2), as neither would comply with the ETR138 and result in an unacceptable level of network risk and potential consumer detriment.

4.13. Based on the information provided, we also agree with NGET’s decision to discount Option 4 (Flood resilience to high standard for likely flood risk scenarios in 2080) because it would be inefficient. Option 4 would likely involve overinvestment relative to the expected flood risk over the next 20-30 years, and unnecessarily increase costs to consumers.

4.14. NGET said in their submission that there was limited opportunity on any of the 33 sites to pursue option 3.3.a (Offsite protection with third parties) and option 3.4 (Coordinating flood defences with other infrastructure schemes). Although coordination with third parties on flood protection, such as local authorities, is encouraged under ETR138, we note that the specific vulnerabilities at most of the 33 sites are predominantly small scale, i.e. relate to a few assets. Therefore, we agree with NGET that the options 3.3.a and 3.4 would unlikely be suitable or efficient for delivering minor flood reinforcements in a timely manner and, therefore, it is reasonable to not include these on the option shortlist for the 33 sites.

4.15. We note that NGET included option 3.3.b (Offsite Protection Green Habitat Creation) on its shortlist despite not having any spare land on any of the 33 sites to accommodate this option. We understand that NGET’s reasoning for this is that there might be cases where changes to the site’s drainage ditches could manage the risk effectively. On this basis, we think it reasonable that this was further examined for each site.

4.16. We agree with NGET’s optioneering to include localised protections (option 3.2.a), and whole site protection (option 3.2.b) on its shortlist. Although most of the 33 sites require minor flood protections, a medium level of intervention is needed on a couple of sites. We consider that it is appropriate that NGET investigated if option 3.2.b is a more efficient way to deliver the medium level of flood protection needed.

Methodology for option selection

4.17. We consider that NGET has appropriately applied the ETR138 risk-based methodology to narrow down the long list of options to their short list. Our review of NGET’s optioneering found that the shortlist of options considered by NGET are aligned with ETR138 recommendations.

Economic assessment of short-listed options

4.18. For all sites, NGET carried out a cost benefit assessment of its option shortlist comprising localised protection, full site protection and green habitat creation. NGET found that Option 3.1, localised protection, is the most cost-effective solution, compared to other options, in order to meet the ETR138 resilience standard on all 33 sites.

4.19. The full site protection solution (Option 3.2) did not have any additional advantages because the depth of flood water is expected to be less than 900mm at all sites. The green habitat creation option (Option 3.3.b) was the least cost effective due to the additional purchase costs of land adjacent to the grid site that would be necessary to accommodate the flood storage.

4.20. NGET’s preferred option is to take forward a programme of localised protection works at all 33 sites to be delivered over the remainder of 2022 and in 2023.

Our view on the preferred solution

4.21. We are satisfied that the combination of NGET’s analysis on flood risk and cost benefit assessment has identified the appropriate level of interventions to address the site-specific vulnerabilities. During the course of our assessment, we received additional information from NGET on the delivery programme for the specific sites interventions which we found acceptable.

4.22. Overall, we are minded-to accept the justification for the localised protection option that NGET has proposed for all 33 sites as we consider this solution is in the interests of consumers. Given the flood risk and specific factors at the sites, we are satisfied that it is the most cost-effective solution for NGET to meet the ETR138 resilience standard and to mitigate the risk and costly impact of site shutdowns and flood damage at critical grid sites.

5. Cost assessment of the proposed project

Section summary

This section sets out our assessment of the submitted costs of the Extreme Weather Resilience works. The results represent our current view on the efficient costs of the interventions.

Questions

Consultation Question 4: Do you agree with our view on NGET’s proposed Extreme Weather Resilience MSIP costs?

Overview of NGET’s project costs

5.1. NGET has requested a total allowance adjustment of £4.056m to deliver the localised protections at the 33 sites under the MSIP Re-opener.⁶ The total funding request can be broken down into the two broad categories:

- Contractors’ costs
- Contingency costs

Contractors’ costs

5.2. NGET has not yet tendered the work packages to deliver the localised protections at the 33 grid sites. Instead, it has developed an estimate of contractors’ costs that it expects to receive from suppliers when it goes to market.

⁶ During the course of our assessment, we requested NGET to re-submit its cost breakdown workbook to fix a couple of miscalculations that we found. As a result, there is a difference between the total funding request cited in this consultation and the value of the funding request in NGET’s Extreme Weather MSIP submission available on its website.

5.3. NGET's estimate of contractors' cost comprise two main components: the costs of the main works to physically deliver the interventions, and the costs of preliminary activities, such as site civils, site set up and site management.

Main works costs

5.4. NGET has estimated contractors' main works costs using each site's outline design of interventions and the costs of similar works from the outturn costs of two RIIO-1 flood defence projects competitively tendered in 2020. A small proportion of activity (less than 10% by value) did not feature in the RIIO-1 projects. For these items, NGET does not have outturn or tender unit costs and has instead developed its own estimates.

Preliminary activity costs

5.5. NGET has also added an amount for preliminary activities, calculated as percentage of the estimated main works costs. NGET set the rate as the same proportion of this cost category in the mid-range tender it received for the two RIIO-1 flood defence projects.

Contingency costs

5.6. In its funding request, NGET also included an amount, known as contingency costs, to cover cost increases due to some possible events or changes in circumstances that cannot be predicted with certainty. NGET's contingency costs comprise two elements: risks and real price effects.

Risk contingency

5.7. NGET has provided evidence of costs increasing on previous flood defence projects for various reasons such as third-party interactions that resulted in design changes. The cost increases on previous projects submitted for RIIO-1 price control, ranged between 3% and 9.3%. For the Extreme Weather Resilience MSIP project, NGET is requesting a contingency budget of 11% of its contractors' costs estimate to cover the potential cost impact of such risks.

Real price effect contingency

5.8. NGET is also requesting an additional amount to cover real price effects (RPEs). RPEs are the difference between changes in input prices and general inflation.⁷ NGET consider it is likely that the cost of materials and labour could increase more than general inflation over the delivery period for the Extreme Weather Resilience MSIP project. NGET is proposing that a RPE contingency is calculated as 9% of the sum of its contractors’ cost estimates.

5.9. The following table summarizes NGET’s funding request for the Extreme Weather Resilience MSIP project.

Table 1: NGET’s funding request*

Classification	Activities	Source	Total Cost (£k) 2018/19 prices
Direct	Contractors’ costs	Estimate based on previous projects and NGET estimates	3,379.8
Direct	Risk contingency	11% of total contractors’ cost estimate	371.8
Direct	RPE contingency	9% of contractors’ cost estimate	304.2
	Total Costs		4,055.8

* The values in this table are taken from a cost sheet NGET re-submitted during the course of our assessment. As a result, there is a difference between the total funding request presented in table 1 and the value set out in NGET’s Extreme Weather MSIP submission available on its website.

Our view of efficient project costs

Contractors’ costs – main works activities

5.10. NGET has estimated costs for most of the main works activities at the 33 sites using the outturn costs of delivering localised protections at two sites during RIIO-1. We note that the scope of the two RIIO-1 sites are also small flood defence schemes and are broadly comparable with the scope of the proposed localised protections at the 33 sites.

⁷ In RIIO-2, this is based on the Consumer Price Index (CPIH), which includes owner occupier housing costs.

5.11. As the majority of contractors' costs for main works activities are derived from tender costs that were well-specified and contested in the wider market, we accept that most of the estimated costs for this cost component are representative of the economic and efficient level obtainable. However, we have made a few adjustments. The first is to correct a double count of costs for one site in NGET's cost breakdown spreadsheet that was re-submitted in March 2022. In two other instances we have replaced a non-standard unit cost with the unit rate from the tender costs as there was no engineering rationale provided to justify using a different unit cost. In total, these adjustments lead to a 2% reduction in main works costs.

Contractors' cost – preliminary activities

5.12. NGET's funding request included an amount for contractors' preliminary activities, which it calculated as percentage of the main works costs based on the proportion of cost that these activities made up in the tenders for the two RIIO-T1 sites. We understand from the supporting information that these preliminary activities comprise site set up, site civils, as well as site management and supervision.

5.13. We propose to reduce this cost category in NGET's funding request because under the RIIO-2 arrangements, site management and supervision are closely associated indirect (CAI) activities which fall under the scope of the costs covered by the opex escalator. As a result of removing costs for these specific elements, we propose to reduce the funding of preliminary activities by 49%.

5.14. The opex escalator will automatically increase NGET's opex allowance if its capital expenditure is increased through specified re-openers, including the MSIP Re-opener.⁸ Details of the opex escalator approach, the applicable uncertainty mechanisms (UM) and the calculation methodology is set out in full under the Chapter 4 of Electricity Transmission Final Determinations.⁹

⁸ This OPEX escalator allowance calculation is predicated on the view of efficient CAI baseline allowances established at Final Determination (FD) which utilised the relationship between direct capex and CAI and subsequently applies this relationship to any direct capex allowances agreed under a defined list of uncertainty mechanisms.

⁹

https://www.ofgem.gov.uk/sites/default/files/docs/2021/02/final_determinations_et_annex_revised.pdf

Risk contingency

5.15. NGET has requested a risk contingency of 11% of its total contractors' cost estimate to cover project risks of delivering the works at the 33 sites. Based on our assessment, we consider that a 11% contingency is not justified. We note that the variation on cost increases seen on previous RIIO-1 flood defence projects ranged between 3% and 9.3%. We consider that relative to these projects, the site estimates for the RIIO-2 flood defence works are likely to be more accurate as NGET has completed outline designs for all sites and the majority of cost estimates are based on outturn costs of delivered works. Therefore, we expect there will be less deviation from the estimated cost for the 33 sites than was seen on previous flood defence projects.

5.16. Our RIIO-2 determinations capped average risk across projects at approximately 7.5% of contract value, following a review of outturn risk on a number of RIIO-1 projects. We are proposing to do the same across risk-sharing projects, which could result in some variation between the proposed contract prices and our proposed allowance. This will incentivise NGET to manage these works efficiently.

Real price effects contingency

5.17. NGET has requested a contingency of 9% of total contractors' costs to cover real price effects (RPE) of input prices increasing more than general inflation over the two-year delivery period 2022/23 to 2023/24.¹⁰ On the basis of the information provided to date, we are not convinced that the additional funding as requested by NGET is sufficiently justified. Our initial view is that the analysis underpinning this cost category is incomplete and lacking detail.¹¹

5.18. We need better analysis of the potential RPE impact over the duration of the project to finalise our view on this aspect. Specifically, we consider that NGET should compare forecasts of consumer price index including housing (CPIH) and the relevant construction index for the period and then apply the difference to the relevant project activities/items that will be

¹⁰ NGET's totex allowances are automatically adjusted for changes in CPIH as part of the annual iteration of the price control financial model.

¹¹ As per para 3.4 of the Guidance and Application Requirements, we will consider whether there is sufficient information to progress a Re-opener application in the absence of all the required information on a case-by-case basis.

exposed to the changes in the construction index. In addition, the estimated cost impact should be provided on a P50 basis to ensure there is fair cost-sharing with consumers.¹²

Summary of proposed project allowances

5.19. The table below summarises NGET’s funding request, our proposed adjustments, and our proposed allowances against each of the components for the Extreme Weather Resilience MSIP project.

5.20. As explained in paragraphs 5.13 and 5.14, NGET will also receive an automatic uplift from the OPEX escalator for CAI activities on the project based on the total proposed allowances.

Table 2: Proposed adjustments and allowances

Cost category	NGET request (£k)	Ofgem proposed adjustments (£k)	Ofgem proposed allowances (£k)
Contractor costs	3,379.8	-564.9	2,815.4
Risk contingency	371.8	-160.6	211.2
RPE contingency	304.2	-304.2	0
Total	4,055.8	-1,029.1	3,026.6

¹² A P50 estimate is the cost value modelled from Monte Carlo simulations at which it is equally likely that the actual cost impact turns out to be higher or lower.

6. Next Steps

6.1. We welcome your responses to this consultation, both generally, and in particular on the specific questions in Chapters 2, 3, 4 and 5. Please send your response to: Graeme.Barton@ofgem.gov.uk. The deadline for response is 16 June 2022.

6.2. We will endeavour to conclude our assessment of NGET's MSIP application with a decision in autumn 2022. To implement our decision, we will also publish a statutory consultation on the relevant changes to NGET's electricity transmission licence to set the Price Control Deliverables for the Extreme Weather Resilience works at the 33 sites.

Appendices

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Appendix 1 – Grid sites requiring localised flood protections

Site #	Site Name
1	Beacon Road Cooling Station
2	Berkswell
3	Birkenhead
4	Bolney
5	Bramford
6	Bushbury
7	Capenhurst
8	Cellarhead
9	Clapham Cooling Station
10	Clilfynydd
11	Didcot
12	Exeter
13	Feckenham
14	Fiddlers Ferry
15	Fourtstones (Harker)
16	Grangetown
17	Hurst
18	Hutton
19	Kitwell
20	Lister Drive
21	Lovedean
22	Macclesfield
23	Millhill
24	Nechells
25	Norton
26	Offerton
27	Oldbury
28	St Johns Wood
29	Taunton
30	Tinsley Park
31	West Burton
32	Willesden
33	Willington

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Appendix 2 – Consultation Questions

Consultation Question 1: Do you agree with our view of the suitability of the needs case proposed by NGET?

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

Consultation Question 3: Do you agree with our view on the solution proposed by NGET?

Consultation Question 4: Do you agree with our view on NGET’s proposed Extreme Weather Resilience MSIP costs?

Appendix 3 - Assessment of MSIP Re-opener application requirements

The table below summarises our assessment of NGET’s MSIP application for the Extreme Weather Resilience project against Special Condition 3.14 and the Re-opener Guidance and Application Requirements Document, as required under Special Condition 9.4.

Table 1: Re-opener application requirements

Document	Requirement	Has the requirement been met?
Special Condition 3.14, paragraph 6d ¹³	Projects qualify for application via the MSIP re-opener where the application relates to a Flooding Defence Project for the purpose established within the licence condition.	Yes
Special Condition 9.4, paragraph 3.	To prepare applications for Re-openers in accordance with the Re-opener Guidance and Application Requirements Document.	Yes
Special Condition 3.14, paragraph 9.	Includes a statement setting out what MSIP the application relates to.	Yes
	To give details of the associated amendments to the outputs, delivery dates or allowances and an explanation of the basis of the calculation for any amendments requested to allowances.	Yes
	To provide such detailed supporting evidence as is reasonable in the circumstances to justify the technical need including cost benefit analysis, impact assessments, risk mitigation, and engineering justification.	Yes

¹³ More detail is available in the RIIO-2 “ET Annex” Final Determinations document, paragraphs 4.49 to 4.56. See link: [RIIO-2 Final Determinations for Transmission and Gas Distribution network companies and the Electricity System Operator | Ofgem](#)

	An explanation of the basis of the calculation for any adjustments requested to allowances.	n/a
Special Condition 3.14, paragraph 6d ¹⁴	Projects qualify for application via the MSIP re-opener where the application relates to a Flooding Defence Project for the purpose established within the licence condition.	Yes
Special Condition 3.14, paragraph 9.	Includes a statement setting out what MSIP the application relates to.	Yes
	To give details of the associated amendments to the outputs, delivery dates or allowances and an explanation of the basis of the calculation for any amendments requested to allowances.	Yes
RIIO-2 Re-opener Guidance and Applications Requirements 2.2	An application accompanied by written confirmation from a suitable senior person within the company confirming the accuracy and quality assurance internal governance arrangements that it has been subjected to and received sign off at an appropriate level within the licensee.	Yes
RIIO-2 Re-opener Guidance and Applications Requirements 2.4	Publication of the complete application in a prominent place on the company website, within 5 working days of application to Ofgem.	Yes

¹⁴ More detail is available in the RIIO-2 “ET Annex” Final Determinations document, paragraphs 4.49 to 4.56. See link: [RIIO-2 Final Determinations for Transmission and Gas Distribution network companies and the Electricity System Operator | Ofgem](#)

RIIO-2 Re-opener Guidance and Applications Requirements 3.3	To include a table that maps out which sections of the application relate to individual requirements as set out in the relevant Re-opener licence condition and Chapter 3 of RIIO-2 Re-opener Guidance and Applications Requirements.	Yes
RIIO-2 Re-opener Guidance and Applications Requirements 3.4	Licensee must provide a justification for not providing all the required information (if required).	No
RIIO-2 Re-opener Guidance and Applications Requirements 3.8	Applications must include a needs case whether or not this is a specified requirement of the relevant Re-opener licence condition or Re-opener Guidance.	Yes
RIIO-2 Re-opener Guidance and Applications Requirements 3.9, 3.10	The needs case must contain a clear statement of how the proposed expenditure aligns with the licensee's overall future business strategy and commitments, including consideration of how it relates to the licensee's RIIO-2 licence or other statutory obligations and, if relevant, its RIIO-3 business plan.	Yes
RIIO-2 Re-opener Guidance and Applications Requirements 3.11	Must include a clear statement as to the need for the proposed expenditure or the problem the licensee is trying to address in the context of its significance for consumers and network assets. The affected consumers / assets must be identified and the associated risk being addressed quantified, where possible.	Yes
RIIO-2 Re-opener Guidance and Applications Requirements 3.12	Must provide the rationale for the level of expenditure proposed and why this level should be regarded as being efficient.	Yes
RIIO-2 Re-opener Guidance and	Must include a clear description of the long and short list of options considered	Yes

Applications Requirements 3.13	and the selection process undertaken to reach the preferred option.	
RIIO-2 Re-opener Guidance and Applications Requirements 3.14	Must include a clear description of the preferred option, sufficient to allow us to make an informed decision on if the preferred option is suitable.	Yes
RIIO-2 Re-opener Guidance and Applications Requirements 3.15	Must include a clear statement as to any project delivery and monitoring plan for the preferred option.	Yes
RIIO-2 Re-opener Guidance and Applications Requirements 3.16, 3.17	Must include an explanation of how stakeholder engagement contributed to the identification and design of the preferred option. Where a stakeholder engagement may not be necessary because there is no material impact on stakeholders, or where the application is driven by statutory obligations, a brief explanation must be provided as to why stakeholder engagement was not considered appropriate.	Yes
RIIO-2 Re-opener Guidance and Applications Requirements 3.19, 3.20	Must provide sufficient cost information to justify: <ul style="list-style-type: none"> - Why expenditure is additional to that already provided for by baseline allowances or other mechanisms; and - Why the level of costs is efficient. This should be submitted in accordance with the format and detail specified at paragraph 3.20.	Yes
RIIO-2 Re-opener Guidance and Applications Requirements 3.21, 3.22	Cost Benefit Analysis and Engineering Justifications Papers are important sources of evidence that can be included in an application.	Yes

Appendix 4 – Privacy notice on consultations

Personal data

The following explains your rights and gives you the information you are entitled to under the General Data Protection Regulation (GDPR).

Note that this section only refers to your personal data (your name, address and anything that could be used to identify you personally) not the content of your response to the consultation.

1. The identity of the controller and contact details of our Data Protection Officer

The Gas and Electricity Markets Authority is the controller, (for ease of reference, “Ofgem”). The Data Protection Officer can be contacted at dpo@ofgem.gov.uk

2. Why we are collecting your personal data

Your personal data is being collected as an essential part of the consultation process, so that we can contact you regarding your response and for statistical purposes. We may also use it to contact you about related matters.

3. Our legal basis for processing your personal data

As a public authority, the GDPR makes provision for Ofgem to process personal data as necessary for the effective performance of a task carried out in the public interest. i.e. a consultation.

3. With whom we will be sharing your personal data

We will not share your personal data with any third parties.

4. For how long we will keep your personal data, or criteria used to determine the retention period.

Your personal data will be held for six months after the project has closed.

5. Your rights

The data we are collecting is your personal data, and you have considerable say over what happens to it. You have the right to:

- know how we use your personal data

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- access your personal data
- have personal data corrected if it is inaccurate or incomplete
- ask us to delete personal data when we no longer need it
- ask us to restrict how we process your data
- get your data from us and re-use it across other services
- object to certain ways we use your data
- be safeguarded against risks where decisions based on your data are taken entirely automatically
- tell us if we can share your information with 3rd parties
- tell us your preferred frequency, content and format of our communications with you
- to lodge a complaint with the independent Information Commissioner (ICO) if you think we are not handling your data fairly or in accordance with the law. You can contact the ICO at <https://ico.org.uk/>, or telephone 0303 123 1113.

6. Your personal data will not be sent overseas.

7. Your personal data will not be used for any automated decision making.

8. Your personal data will be stored in a secure government IT system.

9. More information

For more information on how Ofgem processes your data, click on the link to our "[Ofgem privacy promise](#)".