Guidance

Cap and Floor Cost Assessment: Long Duration Electricity Storage (window one)

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This document sets out the approach that Ofgem will use to assess, adjust, and/or approve costs submitted to us under the Long Duration Electricity Storage (LDES) Cap and Floor (C&F) regime. It aims to assist LDES Projects that have passed the Eligibility Stage of the Window 1 C&F with their cost submissions for the next Project Assessment. It also sets out a number of processes that Ofgem expects to apply in assessing and using these costs in its decision-making.

It should be read alongside the Decision following the Consultation on Project Assessment for LDES Window 1 and the MCA Framework.

This guidance document has been specifically created for LDES Cap and Floor regime Window 1 ('Window 1') Projects. It is for guidance only and is not intended to be a legal document. Projects should seek their own legal and technical advice.

Once Licences for the regime have been issued, where any conflict exists between this guidance document and the Licence, the Licence will take precedence.

References to the "Authority", "Ofgem", "we", and "our" are used interchangeably in this document. The Authority refers to GEMA, the Gas and Electricity Markets Authority. The Office of Gas and Electricity Markets (Ofgem) supports GEMA in its day-to-day work

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1. Executive Summary

1.1 This guidance document has been written to describe the process and principles to which Ofgem currently expects to have regard to when assessing costs submitted by LDES Projects.

1.2 Our approach to cost assessment is aligned with the National Audit Office (NAO) definition of Value for Money (VfM) for consumers, where appropriate. Good VfM is not simply about achieving the lowest up-front costs; it is about ensuring that costs are Economic, Efficient, and Effective.

1.3 The approach to cost assessment is based on ex-ante estimates of costs which allow us, as the Economic Regulator, to set provisional costs which shall inform our final determination of the Economic, Efficient and Effective costs at the Post Construction Review (PCR). We expect to base our Determinations on:

- the submissions and representations of the Project (whereby we expect Projects to include appropriate market testing and benchmarking);
- statutory or voluntary consultations if deemed necessary;
- our own technical analysis of relevant submissions; and,
- any other relevant evidence that we may have which is pertinent to our determination.

2. Introduction

2.1. Purpose

2.1.1. This guidance document has been specifically produced in support of the Project Assessment MCA Framework to help Projects to understand:

- How we will assess costs submitted during the Project Assessment submission window; and,
- How we expect to use these costs and assess future cost submissions at future Cost Assessment gates.

2.1.2. We therefore present detailed explanations as to how we will reach evidence-based conclusions during the Multi Criteria Assessment of eligible Projects, and how submissions now may inform our future determinations. Furthermore, we are publishing details as to how we expect to carry out assessments at future Cost Assessment gates; however, we expect to publish further details on these processes as the Cap and Floor regime develops.

2.2. Strategic Context

2.2.1. In order to fulfil our Principal Objectives, we (as the Economic Regulator) must ensure that any Consumer payment to the Project represents good VfM by only exposing Consumers to costs which are Economic, Efficient and Effective.

2.2.2. The competitive nature of the Project Assessment and the inherent uncertainty in estimating costs for Projects of this nature create a risk of optimism bias or strategic misestimation being included in Cost Estimates. A dissimilar degree of misestimation between different Projects may cause poorer VfM Projects from being promoted over better ones within Window 1.

2.2.3. We will therefore undertake Cost Assessments both as part of Project Assessment and at various points during construction and operation after the C&F has been awarded.

2.3. Key Related Publications

2.3.1. Relevant publications are hyperlinked in the text where they are referred to throughout this document.

2.3.2. At the same time as publishing this document, Ofgem has also published the following:

- **Eligibility Decision**: showing which Window 1 Projects will proceed from Eligibility Assessment (Stage 1) to Project Assessment (Stage 2).

- **Project Assessment Decision**: Ofgem's response to the Consultation on LDES Project Assessment which explains the MCA methodology in this document was adapted in the light of Stakeholder views.
- **Multi Criteria Assessment (MCA) Framework:** The detail of the methodology that will be used to select Projects for Window 1.
- **NESO Cost Benefit Analysis (CBA) Methodology for System and Welfare Impacts**: this is an update to the NESO document published as part of the Consultation. It explains how NESO will conduct the market modelling which will provide key inputs to the MCA Framework.
- **Project Assessment Data Submission Form (DSF)**: the Excel template that Projects will use to submit data as described in the MCA Framework. This includes the cost submission.
- **Financial Framework Decision**: Ofgem's response to the Consultation on LDES Financial Framework setting out the decisions made.

2.3.3. The main documents previously published by Ofgem in relation to the Window 1 LDES C&F are :

- Long Duration Electricity Storage Technical Decision Document (TDD)
- Consultation on Long Duration Electricity Storage Project Assessment
- Consultation on Long Duration Electricity Storage Financial Framework
- Long Duration Electricity Storage: cap and floor application window 1

2.4. General feedback

2.4.1. We believe that consultation is at the heart of good policy development. We are keen to receive your comments about this guidance. We would also like to get your answers to these questions:

- Do you have any comments about the overall quality of this guidance?
- Do you have any comments about its tone and content?
- Was it easy to read and understand? Or could it have been better written?
- Any further comments?

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

3. Cost Assessment Principles

3.1. Value for Money

3.1.1. Our approach to cost assessment is aligned with the National Audit Office (NAO) definition of Value for Money (VfM). Good VfM is the optimal use of resources to

achieve the intended outcomes. 'Optimal' means 'the most desirable possible given expressed or implied restrictions or constraints. It is important to note that VfM is not simply about achieving the lowest up-front costs; it is about ensuring that costs are Economic, Efficient, and Effective.

3.1.2. Economy is minimising the cost of resources used or required (inputs) or spending less. Ensuring spend is economic means that consumers' exposure to overall level of Cap and Floor payments is controlled to deliver lower bills for the service they receive. The Project may be able to demonstrate that its proposed costs are economic by showing that the resources are strictly necessary to deliver the specification, and by demonstrating that the specification has been suitably challenged to deliver an appropriately robust Project without overengineering.

3.1.3. Efficiency is the relationship between the output from goods or services and the resources to produce them or spending well. Delivering projects efficiently means consumers face lower costs for the services they receive as a result of the Project negotiating well with its supply chain. A Project may be able to demonstrate that a cost it proposes is economically efficient by introducing competitive pressures to secure the most cost-effective price for the relevant good or service. Clear and transparent tendering processes and reviews are essential to demonstrate that the most cost-effective price has been secured, and we expect evidence of this to be submitted to demonstrate that costs are efficient.

3.1.4. Effectiveness is the relationship between the intended and actual results of spending (outcomes) or spending wisely on the right things. Effective spend means that Projects deliver the benefits to the network and consumers. This means that the Project may be able to demonstrate that a solution may be best, even if it is not the cheapest, as it is the solution most likely to fulfil the agreed scope. For the avoidance of doubt, a solution is ineffective by definition if it causes the Project to:

- Breach the terms of the any relevant Licence or Code;
- Fail to comply with other regulatory or legal obligations; or,
- Breach the terms of an agreement, framework, or obligation made with, or imposed by government.

3.2. Base Year Prices

3.2.1. We expect Projects to report costs to us in Base Year prices (£2024, calendar year). Historic costs should be inflated to Base Year prices in line with CPI-H. Developers should report their escalation indices to account for input price inflation

up to the relevant delivery dates of work packs, before deflating these escalated costs in line with CPI-H.

3.2.2. We expect Projects to consider the inflationary pressures facing their project and account for this when deflating their costs back to Base Year prices. Projects should clearly state and justify the indices used and:

- their relative weighting;
- the outturn data used for Base Year – estimate preparation; and,
- the forecast data used for Estimate preparation – project completion.

3.3. Excluded Costs

3.3.1. When setting the cost building blocks for the Cap and Floor regime, we follow a principle-based approach to make sure only appropriate, good value-for-money costs that directly relate to the agreed project scope are included. Amongst other things, we expect to exclude costs where they:

- Do not offer good value for money, based on our reviews (e.g. at Project Assessment or the Post-Construction Review);
- Fall outside the agreed project scope;
- Are already covered elsewhere in the regime (i.e. to avoid double counting);
- Result from poor conduct, such as fraud, wilful misconduct, or gross negligence;
- Can not be backed up with proper records or evidence;
- Were not properly procured, unless they still meet good industry practice;
- Relate to penalties or legal claims, like fines or legal settlements;
- Involve payments to related parties, unless transparently procured and justified.

3.3.2. Where costs constitute 'excluded costs', they will not be included in the cost inputs to the Cap and Floor Financial Model (CFFM) which will be used to calculate the Project's Cap and Floor levels.

3.4. Cost Control

3.4.1. We expect Projects to manage their contractors effectively. They should provide evidence that project management or contract control processes are put in place upfront (i.e. before the relevant contract is signed) to minimise any cost overruns. Projects should also be able to evidence how they implement their contract and

cost control processes throughout the duration of the project lifecycle. If a lack of robust contract cost management leads to increased costs in development and construction, we may conclude that such costs are not Economic and Efficient and may not, therefore, be included in whole or in part.

3.5. Common collocated costs

3.5.1. Where a Project is collocated with other assets under the control of the Project's owner(s) or their associates, the Project must indicate:

- which elements of the asset are shared;
- costs allocated to the project;
- full cost of each shared asset;
- generation capacity of any co-located generation assets which share the same grid connection as the project;
- expected asset usage by the project based on a relevant metric (e.g. Ha for land, MW for shared Grid Connection, hrs for staff); and,
- what the rationale for the proposed cost allocation rule is.

3.6. Procurement rules

3.6.1. The Project must submit the final Cost Estimate for the works with a class 4 (typical accuracy -15% to +20%, based on c.15% project maturity) or more mature estimate alongside the actual Devex costs incurred to date. This submission should include a robust justification of the procurement process followed to efficiently tender the work agreed to deliver the selected post-FEED option.

3.6.2. Although the Procurement Act (2023) does not necessarily apply to the eligible LDES Projects being assessed, post Cap and Floor regime award we expect work to be tendered in accordance with the public procurement principles set out in this Act.

3.6.3. We will assess the efficiency of costs by reviewing the tendering process and bid evaluation. We will consider, amongst other things, whether:

- contracts are awarded to the most advantageous tender;
- bid evaluation is transparent, clearly documented, and follows a clear procedure;
- sufficient parties were invited to tender to generate competitive tension; and,
- associated party bids are made on a genuinely arm's length basis and subject to appropriate controls.

3.6.4. Work may only be procured on a single source basis in exceptional circumstances, and the Project must provide a robust justification for doing so. The Project must demonstrate that the selected contractor is the only viable candidate for completing the work and that tendering the work would be economically disadvantageous for the Project.

3.6.5. Work should not be procured on a single source basis from an associate of the Project without clear evidence to demonstrate that this delivers better VfM than any other third party.

4. Cost Assessment Process

4.1. Project Assessment

4.1.1. To ensure that the provisional Cap and Floor levels are as accurate as possible, a cost assessment will be undertaken during the Project Assessment stage. We do this by assessing the Project's submitted costs and claimed class of Cost Estimate (per the AACE International, Cost Estimate Classification System), taking into account the maturity of reported costs, and our assessment of the maturity and quality of the submission.

4.1.2. As part of the Project Assessment, eligible Projects must submit their own Cost Estimate report (including a justification of Project Maturity), risk register and project schedule in addition to completing the Data Submission Form (DSF). The cost submission in the DSF must describe costs in three scenarios; the Reasonably Optimistic (P10), the Base (P50), and the Reasonably Pessimistic (P90).

4.1.3. The Reasonably Optimistic Scenario applies a P10 Cost Estimate whereby there is only a 10% chance that the actual cost will equal or be lower than this amount. This serves as the lowest reasonably expected project cost.

4.1.4. The Base Scenario represents the Developer's median estimate of costs with a P50 Cost Estimate whereby there is a 50% chance that costs will equal or be lower than the P50 estimate. This serves as the Project's realistic expected project cost.

4.1.5. The Reasonably Pessimistic Scenario applies a P90 Cost Estimate whereby there is a 90% chance that the actual cost will equal or be lower than this amount. The High scenario submitted at Project Assessment serves as the Project Cost Ceiling.

4.1.6. We expect this submission to be a comprehensive description of the Project and therefore represent the bulk of the engagement that with the Project. However, in some cases where information is missing, incomplete, or unclear, we may submit Supplementary Questions (SQs) to Projects to get the information we need to

complete our assessment. We expect so issue SQs in writing and although we reserve the right to request a meeting, we do not expect to need to do so during the Project Assessment.

4.1.7. We will assess Projects' scope of works, maturity, and estimated costs for each Scenario in order to approve or adjust cost data submitted to us. We expect Projects to provide clear justification and evidence in their submission for their costs and selected technical solutions presented in the scope of works. We will apply the methodologies in Section 6 to test whether the Projects submitted costs and maturity are accurate and represent good VfM and inform the our Cost Assessment Outputs. Where Projects are unable to provide sufficient evidence or justification for their proposed scope of works, we may apply the methodologies in Section 6 to inform our view on the Cost Assessment Outputs based on alternative solutions.

4.1.8. Where Projects' submissions are incomplete or appear erroneous, we may at our discretion:

- submit one or more Supplementary Question (SQ) to the relevant Project developer to better understand their submission; or,
- apply our cost assessment tools to adjust values based on our expert insight, benchmarks and comparator projects.

4.1.9. The output of our assessment will be the following Cost Assessment Outputs which will flow into the MCA Framework:

- Approved/Adjusted Capex
- Approved/Adjusted Repex
- Approved/Adjusted Devex
- Approved/Adjusted Project Maturity
- Approved/Adjusted Decommex
- Approved/Adjusted Opex
- Approved/Adjusted Pass Through Costs

4.1.10. The value of the Cost Assessment Outputs will form part of our consultation on the outcome of the Project Assessment stage. We will also set the Project Cost Ceiling based on the Projects' Reasonably Pessimistic (P90) Case. The Project Cost Ceiling is the maximum project cost that may be used when setting the final Cap and Floor values.

4.2. Project Assessment Update

4.2.1. The Project Assessment Update (PAU) occurs shortly after the Initial Decision List of Projects to be offered a C&F has been published. Projects which have been selected through the Project Assessment stage may apply to us to update their provisional cost (Base Cost Estimate) during the Project Assessment Update Window (PAUW). For Window 1, we expect the Project Assessment Update window to occur in Summer 2026.

4.2.2. Any updates will be made at our discretion. We shall apply a high evidential bar to these updates, and no updates may be made to the Reasonably Optimistic (P10) or the Reasonably Pessimistic (P90) Scenarios. We expect Projects to make high quality submissions in good faith during the Project Assessment, so any updates must be thoroughly justified with Projects demonstrating what facts have changed since the Project Assessment stage to necessitate this change. Projects may not use the Update Window to update errors in the Project Assessment submission.

4.2.3. Submissions should be made in the same format as those for the Project Assessment, accompanied by a letter highlighting all changes from the Project Assessment submission, a detailed justification of each change and an explanation of the impact of this on the total project cost and schedule (including cost and schedule contingency).

4.2.4. We shall review these updated costs in the same way as we did during the Project Assessment.

4.2.5. Where Projects do not make any submission during the Update window, we expect to use the values which we Approved/Adjusted/Accepted during the Project Assessment. However, we reserve the right to update the Project Costs if subsequent information becomes available which, had it been known during the Project Assessment, would have necessitated an Adjustment.

4.2.6. When publishing the Initial Decision List , we expect to also notify Projects of any adjustments that we have or have not made to the Cost Assessment Outputs.

4.3. Post Construction Review

4.3.1. At the Post Construction Review, there is sufficient cost certainty for us to make a robust assessment of whether project costs are good Value for Money. If we were to delay the assessment process until all Projects' spend had been incurred, the Cap and Floor regime start may be unnecessarily delayed.

4.3.2. We will work with Projects to determine when within this band it is most effective to commence the Post Construction Review, and the Project shall notify us when this point has been reached. This constitutes the PCR Trigger.

4.3.3. We will determine the Economic, Efficient and Effective cost of the Project, taking into account the evidence submitted by the Project and the outcome of our Cost Assessment using the methodologies set out below.

4.3.4. The Project shall submit to us their:

- fully audited actual costs up to the date of the PCR Trigger;
- forecast costs at completion;
- scope of works to completion; and,
- proposed punch list items.

4.3.5. The Project shall make an assessment of the Earned Value of the project, considering the:

- Budgeted Cost of Works Scheduled (at Licence Award);
- Budgeted Cost of Works Performed; and,
- Actual Cost of Works Performed.

4.3.6. When significant construction cost overruns or variation orders arise, we expect Developers to discuss these matters with us in a timely manner. In such circumstances, we may undertake an investigation, supported by our advisers, to inform our decision on whether submitted costs represent good VfM and to what extent they should contribute to the Economic, Efficient and Effective cost of the project.

4.3.7. We will consider each case on a project-specific basis, as issues that arise may not be common across projects. However, where issues are common to multiple projects, we will make appropriate adjustments to all affected projects. To inform our decision-making, we may instruct our advisers to liaise closely with the Project developer, to assist us in understanding, amongst other things, the decisions and mitigating actions taken.

4.3.8. For all significant cost changes, to facilitate the conclusion of the cost assessment process in a timely manner, Project developers are advised to provide, as a minimum, the following supporting information:

- a detailed explanation of each cost overrun;
- information on the root cause(s);
- a chronological order of events;
- details of all solutions that were considered;
- an overview of the chosen solution(s) with technical justification (where relevant);

- the associated risk assessment;
- details on whether the event was insurable; and
- evidence of claims and/or supporting board papers.

4.3.9. Subject to any specific Uncertainty Mechanisms that may have been applied to the Licence, if a Project's costs have exceeded the Project Cost Ceiling set at the Project Assessment Update gate, we expect to set Cap and Floor values based on the Project Cost Ceiling.

4.4. Licensed Operational Period

4.4.1. Ofgem expects to allow Licensees to apply to have their Opex costs reopened no earlier than 10 years from the regime start date, with any related decision applying from its publication date to the remaining duration of the regime. If a Licensee makes such a submission, we will assess this by applying the Cost Assessment methodologies described in this Guidance Document.

5. Cost components

5.1.1. We expect Projects to report forecast and actual expenditure to us consistent with industry-recognised accounting standards (for example, International Financial Reporting Standards or UKGAAP) to determine whether spend is Capex or Opex; furthermore, Projects should report several specially designated sub-categories of Capex and Opex.

5.1.2. We expect the regulatory framework to largely align to the Project's own classification of costs, although we will review particularly large items of expenditure to ensure the regulatory treatment of costs is consistent with our statutory duties. In particular, we reserve the right to review significant leases and decide whether and how they should be capitalised on a case-by-case basis, taking into account representations from the Project and our statutory duties (notably those around financeability).

5.1.3. Capex bias could occur if Projects deploy sub-optimal Capex solutions over better VfM Opex solutions, where the Project considers it is in its own financial interests to do so. This could cause the Project to preferentially propose or utilise Capex solutions instead of Opex solutions, even if they would have chosen the Opex solution on merit alone. We reserve the right to adjust or reallocate costs if we believe that a poor VfM solution is influenced by Capex bias.

5.2. Devex

5.2.1. As Devex is the investment made in a Project to reach Final Investment Decision (FID), we typically capitalise all Devex spend even if some specific activities (e.g. back-office costs) would conventionally be considered Opex as these costs are effectively investments in the asset necessary for it to reach FID.

5.2.2. Before beginning construction, the Project would usually undertake a FEED process and begin the process of obtaining the relevant consents and permissions required for constructing and installing the assets.

5.2.3. These activities usually take place prior to the Project taking FID. We refer to these costs, as well as the resourcing costs associated with these activities, as development costs (Devex).

5.3. Construction Capex

5.3.1. Construction Capex typically represents the bulk of project spend, although there may be cases when Repex (defined below) may exceed the Construction Capex costs. Most of the Construction Capex cost is comprised of the design, delivery, construction and installation contracts. These contracts may be wrapped up into an Engineering, Procurement, and Construction (EPC) contract, or may be a series of contracts managed by a Project Integrator (whose costs also constitute Construction Capex).

5.4. Repex

5.4.1. Repex covers costs that the Project expects to incur in replacing essential equipment to ensure continued functionality of the asset during the regime lifetime.

5.4.2. As part of its submission, the developer should detail the Project's strategy in relation to Repex, including:

- The process it has in place to determine when to replace certain assets, and the subsequent steps it would take. This will include the assumptions based on present and future technology;
- An overview of all relevant asset condition monitoring it has in place, this will include the planned interaction between the Repex plan and condition monitoring;
- Analysis that has been undertaken to model the impact of different Repex solutions on the long term condition of the project and its assets; and

- Evidence to prove that the proposed solution is the most robust and efficient solution available to the Project.

5.4.3. If the Project has engaged with consultants to inform its view on Repex, it should share any associated reports or conclusions with us as part of its submission.

5.4.4. Projects should report the expected operational profile of their asset which has been used to inform lifetime Repex and Opex costs. Our current default assumption is that projects will conform to the rough profile described in Table 1. Projects may apply their own profiles if they think they will more accurately reflect their future operation but must describe the effect that this alternative profile would have compared to the profile described below with respect to lifetime Repex and Opex costs.

Discharge Rate	**Average Frequency of Occurrences**
100%	0%
75% - 99%	5%
50% – 74%	5%
30% – 49%	5%
10% - 29%	5%
0.1% - 9%	15%
0%	65%

Table 1 – "Discharge Rate" refers to the state of charge of the asset. For example this table states that the asset will be between 75% and 99% discharged (i.e. between 1% and 25% charged) for 5% of the time across a typical year.

5.5. Decommex

5.5.1. Decommex is the cost the Project expects to set aside to fund works at the end of life to decommission the assets.

5.5.2. We expect the Project to provide a detailed overview of its decommissioning strategy and the costs associated with this strategy.

5.5.3. One of the key considerations of our Decommex review is the legislative requirements that the Project will be subject to in relation to the decommissioning of its assets. Therefore, the Project should provide a clear overview of these requirements within its submission, particularly if there have been any legislative changes since any previous submissions to us.

5.5.4. Further to this, the Project should ensure that it has clearly demonstrated the process that it has followed to agree or estimate the costs that it has submitted in relation to decommissioning.

5.5.5. We will review this information to ensure that the Project has followed a diligent process, in line with all relevant legislation, and that its costs represent good VfM.

5.5.6. Our final Cap and Floor levels will include an efficient allowance for Decommex, based on the information that is available to the Project and to us at the time of the Post Construction Review (PCR) decision.

5.5.7. However, legislative requirements could change before the end of the Project's Cap and Floor regime and could lead to additional or reduced decommissioning costs which the Project would not have foreseen. We expect that the Project's Licence would provide for adjustments to the Cap and Floor levels (whether upwards or downwards) if a relevant Change in Law results in additional or reduced decommissioning costs agreed by the Ofgem.

5.6. Opex

5.6.1. Opex costs are the controllable costs associated with managing, operating, and maintaining the Project during its operation phase to maximise its value to Consumers. These costs are within the control of the Project. We expect controllable Opex costs to include aspects such as:

- the main service agreement for the maintenance of the Project's assets;
- resourcing costs associated with the ongoing management and operations of the Project;
- commercial cost elements associated with the Project's market access and electricity trading; and
- insurance costs for the Project's operational phase.

5.6.2. For the avoidance of doubt, buying electricity to charge the asset is not considered an Opex cost; rather, it is accounted for as part of the Gross Margin revenue.

5.6.3. As with all other costs that are subject to our assessment, we expect the Project to ensure that it has undertaken the appropriate processes to ensure the efficiency of these costs, such as undergoing a competitive tender process, where relevant.

5.6.4. Where it is not possible or appropriate to undertake a competitive tender process, we expect the Project to demonstrate to us that it has incurred or estimated costs in an efficient manner, and that they have explored all relevant options to ensure the efficiency of these costs.

5.6.5. We expect that costs such as the Project's operational insurance and its main service agreement to be firm at the time of the PCR. However, we anticipate that a significant proportion of the Project's controllable Opex costs will still be estimates;

for example, resourcing costs and costs associated with the ongoing management and functioning of the Project.

5.6.6. Therefore, a significant focus of our controllable Opex review will be on the robustness and appropriateness of the assumptions that the Project has applied in order to estimate these costs. If the Project is unable to justify and/or substantiate the assumptions that it has made, we may apply our own assumptions to these costs to ensure that the costs that are reflected within the Cap and Floor levels are Economic and Efficient.

5.7. Pass Through Costs

5.7.1. Pass Through Costs are the uncontrollable costs associated with managing, operating, and maintaining the Project during its operational phase. The Project has little to no control over these costs, and as such is not expected to own the risks associated with these costs.

5.7.2. Although pass-through costs largely fall outside of the scope of VfM assessments, the Project is still expected to demonstrate that it has undertaken sufficient due diligence such that the costs are free of forecasting or accounting errors and that there are no surpluses or shortfalls arising from inefficient cashflow management.

5.7.3. Projects must provide the relevant supporting evidence to substantiate these costs. This is so that we are able to confirm the nature of these costs and to ensure that they are well evidenced.

5.8. Contingency

5.8.1. Contingency is a sub-category of Capex and Opex cost allowances that accounts for the inherent uncertainty in estimates submitted earlier in the project development phase. Projects should calculate contingency using an appropriately robust and sophisticated methodology with an accompanying risk register and should explain and justify the use of this methodology. Typically, we would expect a mature, complex project to use a Monte Carlo model to quantify their exposure. Projects should report their contingency under 3 scenarios; Reasonably Optimistic (P10), Base (P50), and Reasonably Pessimistic (P90), see paragraphs 4.1.3 – 4.1.5.

6. Cost Assessment Methodologies

6.1. Methodology application

6.1.1. We will apply a range of methodologies when assessing costs submitted to us. We expect to consistently apply these methodologies to the relevant categories of cost at each stage of the Cost Assessment process.

6.1.2. Where feasible, we shall apply all methodologies that we have identified as applicable to a given category of cost. Our methodologies shall be applied consistently across technology types; however, there may be instances where paucity of data (i.e. few submissions) or the inherent complexity of certain aspects of the technology type mean that we vary the degree of reliance we place on some methodologies.

6.2. Expert review

6.2.1. Our in-house experts will work with a multidisciplinary team of advisors to assess whether Projects' assertions are justifiable, and where this is not the case what degree of adjustment should be applied to correct these assertions.

6.2.2. Our experts may consider whether Projects' proposals are aligned with good industry practice and will test whether claims made about project maturity align with actual project progress to date. They may also consider whether costs submitted, including contingency budgets, represent those typically seen within the relevant sector, especially where benchmark or comparison data is limited.

6.2.3. We will test that the proposed scope of works constitutes a comprehensive description of the works, and that Projects are neither likely to make material scope variations in future, nor be carrying out unnecessary scope in order to profit from the returns on unnecessary project spend.

6.2.4. Our experts may reach out to Projects with Supplementary Questions to better understand submissions or to request further information where necessary.

6.3. Benchmarking

6.3.1. We use benchmarking analysis to guide our decisions on what cost areas it may be appropriate to investigate further, rather than as an absolute determinant of allowable costs. Where specific costs are highlighted as a concern, we conduct further analysis to determine whether such costs represent good VfM.

6.3.2. Projects will be given the opportunity to explain why their costs may differ from benchmarks. We require detailed explanations for any costs that are unique to that Project, or costs that are materially different to those expected. We also expect the Project to be able to quantify and evidence any additional project specific costs, so that we can then consider whether those costs represent good VfM.

6.3.3. In the absence of appropriate evidence to justify these differences, we may use the benchmarking data to inform our view of whether the relevant costs represent good VfM.

6.3.4. Our investigation and analysis are not solely based on the results of our benchmarking assessments and we may also investigate areas where project compare favourably to benchmarks.

6.4. Cost Comparisons

6.4.1. Where enough Projects submit similar information within an assessment window, we shall use this data to create a cohort of submissions. We will use this to carry out proportionate expert reviews of outlier data. We would typically expect to investigate data that falls within the upper and lower quartiles; however, this will vary depending on the data. Where data are tightly clustered, we may only investigate the upper and lower deciles.

6.4.2. We expect to typically treat data within the middle quartiles (or deciles 2 – 9) as meeting the benchmark generated by this cohort; however, we may still carry out further expert reviews where the data set is small or inconsistent.

7. Cost Reporting & Logging

7.1. Cost reporting

7.1.1. Works should typically be reported at Work Breakdown Structure Level 2, except where alternate approaches have been agreed to by us.

7.1.2. Projects shall submit regular reports giving a narrative of project progress over the reporting period. This report should be submitted to us within fifteen business days of the end of the reporting period, and should include details of costs and progress including:

- Budgeted Cost of Works Scheduled (at Licence Award);
- Budgeted Cost of Works Performed; and,
- Actual Cost of Works Performed.

7.1.3. The Project should also report key updates to their risk register and any Health, Safety and Environmental incidents during the reporting period.

7.1.4. Upon receipt of the report, we may submit Supplementary Questions to the Project or convene a meeting to discuss any issues raised in the report.

7.2. Cost logging

7.2.1. Cost logging is the process of incorporating the Project's allowable actual costs into the Cap and Floor Financial Model to calculate the Cap and Floor levels. To do this, we calculate a Regulatory Asset Value (RAV), which is a way for Ofgem to measure the efficient value of a project's assets. The RAV includes the approved costs of

building (capex) and maintaining (repex) the project, as well as allowances for interest incurred during construction (IDC).

7.2.2. We will regularly assess the Project's actual costs to find the total spend for a given period (typically one quarter) that is eligible for addition to the RAV. We will scrutinise the costs that the Project has reported to verify that the costs have been legitimately incurred as part of a contract which forms part of the agreed scope and will work with the Project wherever there is any doubt or uncertainty surrounding any costs.