

Queensland Competition Authority

Guideline

Climate change related spending

September 2023

We wish to acknowledge the contribution of the following staff to this report:

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Disclaimer

- (1) This guideline outlines how the Queensland Competition Authority (QCA) may approach climate change related spending proposals in carrying out its relevant regulatory functions. It is intended to give parties a better appreciation of how to prepare spending proposals to submit to the QCA and how they might be reviewed. We consider this will promote coherent and credible spending proposals and negotiated outcomes.
- (2) This guideline:
 - (a) is non-binding
 - (b) does not cover all aspects of the applicable spending approval procedures
 - (c) does not use formal or legal language
 - (d) should not be considered a substitute for professional advice.
- (3) Each spending proposal is likely to be different. The QCA will take into account the particular circumstances of the regulated business and its customers when considering a proposal. While this document provides general guidance on approaches that might be taken, the QCA is not bound to act in a manner consistent with such guidance in considering a specific proposal.
- (4) The QCA may, from time to time, revise this guideline at its discretion. This may include consultation with stakeholders.

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OVERVIEW

Purpose of this guideline

Businesses are increasingly considering climate change when making spending and investment decisions. The businesses we regulate will be spending both to adapt to intensifying weather-related risks, and to mitigate the emissions that drive climate change.

Prudent spending to adapt infrastructure will make essential services more reliable and keep the wider community safe. Prudent spending on mitigation will help businesses contribute to addressing climate change.

While regulated businesses are free to bring us proposals for adaptation and mitigation that are prudent, the spending also needs to be efficient. This guideline sets out how we expect businesses to plan for and propose climate-related spending. It also sets out, at a high level, the processes we will follow in assessing climate change related spending proposals.

Our regulatory approach to climate related spending

Our existing regulatory frameworks and processes are largely appropriate for assessing climate change related proposals. Those processes work better if we receive proposals of a high standard.

In assessing a climate-related proposal, our first consideration will be how it forms part of a broader, coherent strategy that sets out clear and justifiable goals—and identifies a pathway for achieving those goals. The strategy should be developed in consultation with customers and other relevant stakeholders. The business plan supporting a proposal should demonstrate the need for the spending, outline the consultation with stakeholders, explain how options were considered, and show that the cost is efficient.¹

Spending on adaptation should balance the cost of strengthening the infrastructure against the risk-weighted costs expected to arise from climate-linked events when they happen. Those choices should reflect customers' risk appetite and willingness to pay, as well as the interests of the broader community.

Spending on mitigation should, at a minimum, satisfy any legal requirements. But it may be efficient for regulated businesses to anticipate future requirements that go beyond existing legislation. More ambitious reductions in emissions will ideally be agreed with stakeholders, but may also reflect reasonable expectations of future government, community and financial market standards.

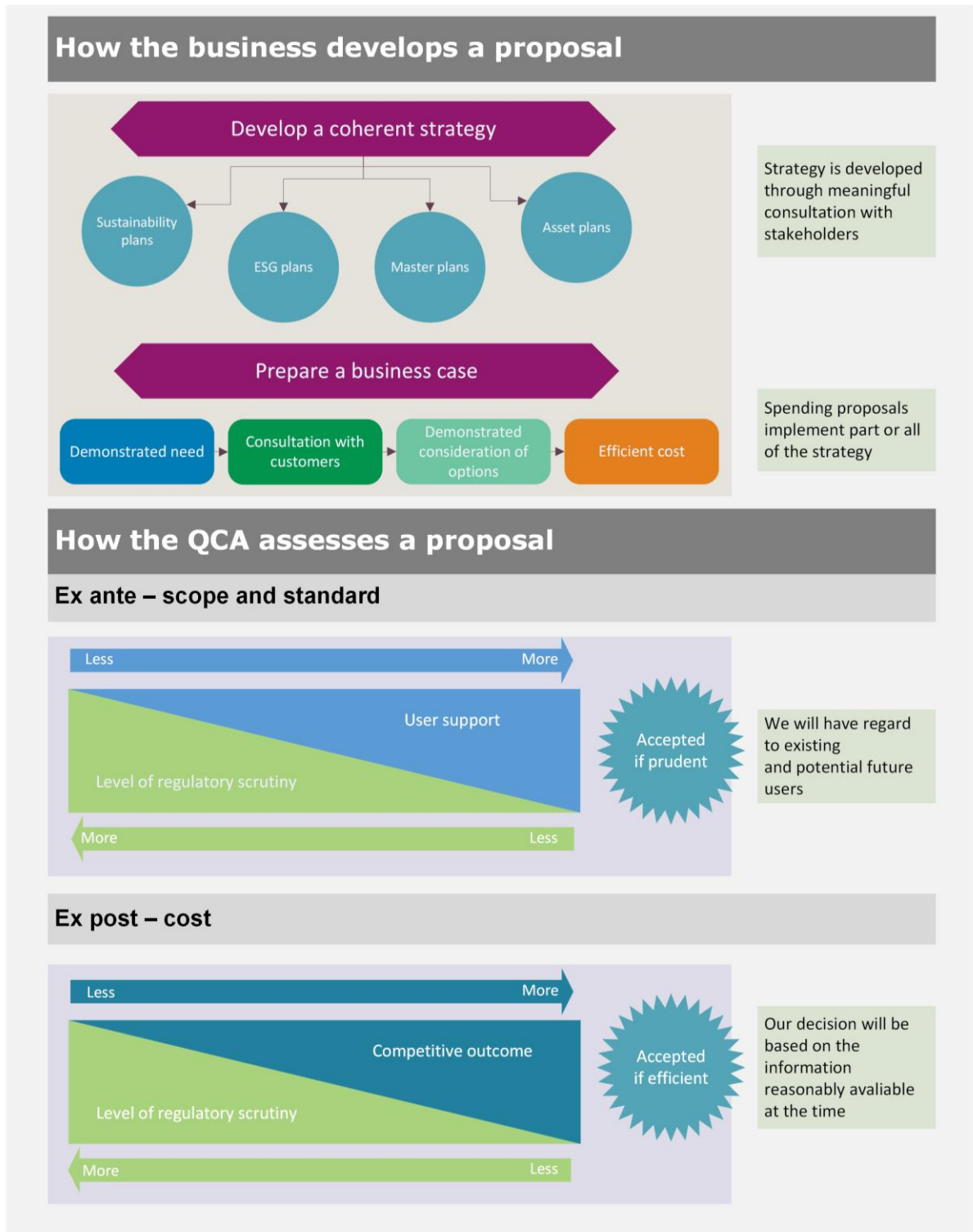
Our assessment will most likely occur under an existing regulatory mechanism, such as the capital expenditure approval processes and cost reviews for rail and ports, and the price reviews for water. Our level of scrutiny is likely to be inversely related to the strength of stakeholder backing for a proposal—there will usually be a simpler path to approval for spending that has broad stakeholder support.

Our reviews will, for the most part, be ex ante, with a focus on the need for the proposed spending and whether it appropriately and efficiently addresses the relevant climate concern (the scope, standard and cost approach). To the extent the proposal requires an ex-post review, our focus will be on whether the final cost outcome is efficient, having regard to the information the business had at the time of making its decision to proceed with the expenditure.

¹ 'Efficient cost' should be assessed as the lowest cost, including both the initial cost and associated costs, over the life of the asset, having regard to the risks associated with operating the asset, such as the likelihood and impact of adverse weather events. The efficient cost should also take into account associated externalities.

Our guidance is summarised in Figure 1 and set out in more detail in the rest of this document. The approach for specific proposals will reflect the particular circumstances of the regulated business, its customers and other stakeholders.

Figure 1: Approval process for climate change related spending proposals



1 INTRODUCTION

This guideline sets out how regulated businesses, in consultation with their customers and other stakeholders, can plan for and undertake climate change related spending that we are likely to assess as being both prudent and efficient. We are open to considering climate change related spending proposals. We encourage regulated businesses and their customers to approach the challenges and opportunities of climate change in a genuine, constructive and open manner.

1.1 Context

Climate change is leading to more adverse weather events and more unpredictability about future events, presenting a range of risks and challenges to regulated businesses and their customers. Increasingly, governments are mandating that businesses undertake risk planning and efforts to mitigate greenhouse gas emissions. Debt and equity investors and insurers have expressed more concern about climate change and broader environmental, social and governance (ESG) matters. Community stakeholders are also putting greater pressure on businesses to improve their responsiveness to climate risks and make genuine commitments to mitigation. Regulators both domestically and internationally are responding to these trends by reviewing and adjusting their frameworks to consider climate change planning for both adaptation and mitigation.

As climate change places new demands on regulated businesses, there are risks that the resulting expenditure will be ill-planned, ill-timed, not fit for purpose or ill-designed, or will be made obsolete. These risks have implications for customers through increased costs to fund works or through service disruption. However, there are also opportunities for regulated businesses and their customers, which include achieving cost savings and increased supply chain resilience.

1.2 Adaptation and mitigation

This guideline considers both adaptation, which addresses the consequences of climate change, and mitigation, which seeks to address the causes of climate change.

Adaptation focuses on enhancing the resilience of infrastructure to better cope with extreme weather events. Such spending includes replacement capital works, enhanced greenfield infrastructure and asset upgrades. A typical example relates to replacing or upgrading an asset to reduce the expected impact of a future weather-related event like a flood. Specific aspects of spending related to adaptation are discussed in Chapter 3.

Mitigation focuses on reducing carbon dioxide equivalent emissions. Such spending may be in response to changes in government policies, community sentiment or external corporate factors (such as financing requirements) and maintaining a social licence² to operate. Mitigation occurs wherever greenhouse gas emissions have been avoided, reduced or counterbalanced. Examples of mitigation could include converting to electric vehicles to avoid diesel emissions, or buying clean power from a solar farm. Specific aspects of spending related to mitigation are discussed in Chapter 4.

² We accept that a 'social licence' to operate is an intangible, dynamic construct that broadly refers to the ongoing acceptance of a business (individual, project, organisation and/or industry) by its stakeholders, as evidenced by the business's ability to engage with its stakeholders and respond to the ever-changing demands on, and expectations of, the business.

1.3 Process

We prepared this guideline after consulting on our regulatory approach and framework for managing climate change related spending.³ This guideline takes into account stakeholders' comments and sets out our preferred approach. It is published at the same time as a separate position paper, which explicitly addresses stakeholders' comments.

We intend to review this guideline once it has been in operation for long enough to be used by regulated businesses, their customers, and us. Once we have experience of its impact and use, we expect to seek comment on this first version of the guideline, after about 18 months to two years.

1.4 Human Rights Act

We accept the science of climate change. Rising greenhouse gas levels are already causing widespread disruption to the lives of Queenslanders (such as residents of the Torres Strait Islands) and, over time, this disruption will increase unless carbon and carbon-equivalent pollution is significantly reduced.

These adverse effects of climate change are impacting rights as outlined in the *Human Rights Act 2019* (Qld) (the HRA). Regulated businesses and their customers contribute to the effects of climate change through their emissions. Our publication of this guidance should be seen as a commitment to the rights outlined in the HRA. For example, where mitigation and adaptation expenditure reduces greenhouse gas emissions and protects essential infrastructure, these actions are consistent with the right to life (s. 16), property rights (s. 24), the protection of families and children (s. 26), and cultural rights of Aboriginal peoples and Torres Strait Islander peoples (s. 28).

1.5 Accommodating climate change spending in the regulatory framework

While the specific features of our approval processes vary across regulated businesses, these processes focus on whether the proposed investment is both prudent and efficient.

We encourage regulated businesses to consult and reach agreement with their customers, where possible, on the nature and appropriate level of climate change expenditure. We also expect the businesses to provide robust and comprehensive justifications for such expenditure.

Different businesses we regulate have different frameworks. Users of this guideline will need to exercise discretion and apply our guidance with an understanding that it is a general document. The guidance in this document does not pre-judge any actual proposal that we may receive.

This guideline sets out what expenditure proposals should include and provides guidance on how proposals may be assessed under the negotiate-arbitrate regulatory framework and the other frameworks that we administer.

The following chapters set out:

- what a business should do to develop a coherent strategy and robust business plan, and how we will conduct our assessment (Chapter 2)
- specific matters relating to adaptation spending (Chapter 3)

³ QCA, *Approach to climate change related expenditure*, discussion paper, October 2022; QCA, *Approach to climate change related expenditure*, draft position paper, April 2023.

- specific matters relating to mitigation spending (Chapter 4)
- regulatory provisions for access and water, and how they relate to climate change expenditure (Chapter 5).

2 ASSESSMENT FRAMEWORK: STRATEGY AND BUSINESS CASE

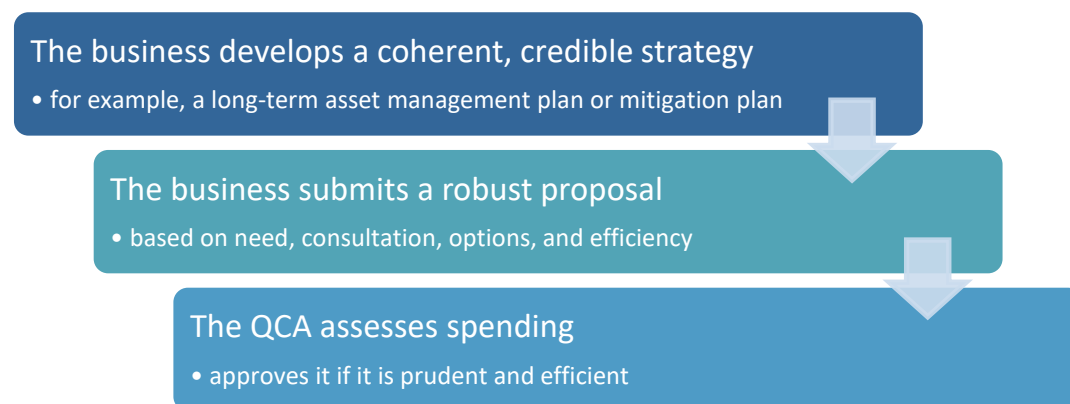
Regulated businesses should be able to make prudent and efficient climate-related investments in the reasonable expectation they will earn returns commensurate with the regulatory and commercial risks involved. They should also be able to recover prudent and efficient climate-related operating expenditure. Our approach to reviewing such spending will bridge the gap between:

- regulated businesses' reasonable expectation they will be able to recover their efficient climate-related spending
- customers' concern that such spending, if it is not necessary, or if it is more costly than other options, will contribute to excessive prices for regulated services.

Our overall assessment framework for climate-related spending is discussed in terms of:

- what regulated businesses should prepare, namely
 - a coherent and credible strategy that should underpin any spending proposal (Section 2.1)
 - a business case and robust proposal that addresses four key elements—need, consultation, options and efficiency (Section 2.2)
- our assessment processes (Section 2.3) (see Figure 2).

Figure 2: Steps for prudent and efficient climate-related spending



Specific matters relating to adaptation and to mitigation are discussed in Chapters 3 and 4.

2.1 Coherent and credible strategy

Spending on infrastructure does not take place in a vacuum. Equally, reducing carbon emissions only makes sense as part of a consistent approach that would also be adopted by a business in a workably competitive environment. So, any climate-related spending should be justified as part of a coherent and credible medium- to long-term strategy, with clear objectives. This may take the form of a company-wide asset management strategy, a master plan or a well-articulated mitigation policy.

These clear strategies will identify and explain the problem the business wants to solve and provide a predictable and consistent context for customers and other stakeholders, including us, to understand proposed spending. The strategies should consider different approaches, such as insurance or pass-through mechanisms, for managing the risks the business is seeking to address.

The strategies will reflect consultation with customers, and at the same time assist those customers in understanding why and how the regulated business wants to invest or commit to operating expenditure.

Consulting with customers and other stakeholders

Consulting with customers is a key part of developing a coherent strategy under the negotiate-arbitrate and similar frameworks, as the customers will ultimately bear much of the cost of any spending, whether it be for adaptation or mitigation. Open and transparent stakeholder consultation is consistent with good business practice and demonstrates that a business is committed to aligning its strategy with the needs of its customers. Consultation is particularly important for strategies that are expected to drive larger expenditures. And where the spending is to address externalities (see Section 2.1.2), the proposed approach should reflect consultation with other stakeholders that might be affected by the regulated business's activities, including the broader community.

While disagreement does not preclude us from assessing proposed spending as prudent and efficient, at a minimum, the business should have attempted to negotiate in good faith and constructively with its customers. Where customers have not agreed with a strategy (and any proposed spending arising from it), we will consider the reasons given for that lack of support.

Change and consistency

The long-term strategy will inevitably, and necessarily, evolve over time. But we would expect most changes to be incremental, and for business cases for individual spending proposals to sit under, and be consistent with, the overall long-term approach. That is, any business case for specific expenditure should be consistent with the long-term strategy of the business.⁴

Some other aspects of long-term strategic planning are discussed below, including:

- value for money and least cost over the long term (Section 2.1.1)
- externalities (Section 2.1.2)
- climate risk accounting (Section 2.1.3).

Long-term strategies with specific reference to adaptation and mitigation are discussed in Sections 3.2 and 4.2.

2.1.1 Value for money and least cost over the long term

A coherent strategy will help avoid the trap of considering only the immediate cost of proposed spending. The investment or operating expenditure with the lowest upfront cost may not be efficient or deliver value for money over time.

Efficient cost should be assessed as the lowest risk-adjusted net present value, including both the initial cost and associated costs over the whole life of an asset or mitigation strategy. Providing value for money involves selecting the most appropriate and effective option to achieve climate-related outcomes and then delivering it at the least overall long-term cost. This assessment of efficient costs will also, where appropriate, reflect externalities (see Section 2.1.2).

⁴ In cases where the expenditure may not be consistent with the longer-term strategy, the business should demonstrate that it could not reasonably have anticipated the nature of the expenditure as part of the strategic planning process.

2.1.2 Externalities

Externalities are the related impacts on third parties who are not party to a transaction of interest. These third parties might include the broader community and/or future customers. Further, these impacts are not captured in the relevant transaction or market price. In the case of climate change, the role of externalities can be significant. For the businesses we regulate, this includes, among other things:

- embedded emissions in the concrete and steel used in major infrastructure projects
- the transport by rail of minerals that are the source of greenhouse gas emissions
- the safety risks to communities downstream of dams.

Where spending proposals consider externalities, these can be significant in the assessment of whether costs are deemed efficient. We will have regard to a project's impact on externalities when assessing the appropriateness of adaptation and mitigation expenditure.

Where businesses, either through regulation or through good business practice, report on broader environmental, social and governance issues associated with externalities arising from their business operations, we will have regard to current best practice (see Section 4.1.2 for more detail on what we see as best practice). Regulated businesses and their customers may wish to consider externalities in reference to the HRA (see Section 1.4).

2.1.3 Climate risk accounting

Long-term strategies for adapting to or mitigating climate risk should also consider the Australian Government's review of climate change related financial disclosure requirements.⁵ The Government's policy intent is that the Australian Accounting Standards Board (AASB) standards will be expanded to include disclosures in the financial accounts of the risks associated with global warming and their impact on cash flows. These risks will be quantified according to a scenarios analysis of meeting the mitigation goals of the *Climate Change Act 2022 (CCA)*⁶, and at least one alternative scenario.⁷ The AASB standards will be aligned to those of the International Auditing and Assurance Standards Board. It is expected that this level of disclosure will feed into business planning and become the basis for decisions on mitigation and adaptation strategies, and assessments of their effectiveness.

2.2 Business case

The case for spending—whether it be on adaptation or mitigation—should be robust and cover all matters the regulated business considers necessary to justify a proposal to its own board. We will expect the business case, at a minimum, to address four key considerations: demonstrated need; consultation with customers; demonstrated consideration of options; and efficient cost (see Table 1). All of these should be included in any proposal for a climate-linked project. These considerations would apply to most capital and operating expenditure proposals, regardless of whether a business was regulated—that is, similar material would be required by the board of a well-managed business operating in a workably competitive environment (see Table 1).

⁵ Treasury, *Climate-related financial disclosure*, consultation paper, Australian Government, June 2023.

⁶ Section 3(a)(i) and (ii) states that the object of the CCA is to hold the increase in the global average temperature to well below 2°C above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels.

⁷ The effect is that the corporate accounts reflect the internationally agreed consensus on decarbonisation alongside a next most probable outcome, such as a more rapid decarbonisation strategy.

Table 1: The four key elements of a robust business case for climate-related spending

<p style="text-align: center;">Demonstrated need</p>	<p>Any climate-related spending proposal should solve an identified problem. If not required by law, it should fulfil a demonstrated need, whether it be for increasing or sustaining the service potential of the facility, or for mitigating carbon emissions. This need should be demonstrated with reference to a coherent long-term strategy, and should not be ad hoc (see Section 2.1). The need may reflect the impact of externalities, community expectations and government priorities, as well as direct impacts on customers and the infrastructure owner. This might be demonstrated through a quantitative approach or, where that is not possible or reasonable, through a qualitative analysis.</p>
<p style="text-align: center;">Consultation with customers</p>	<p>The proposal should have regard to customers' views, including their risk preferences. Consultation should include potential customers, where this is possible.</p> <p>What have customers said about their preferred approach to the climate-related spending? Have customers been provided with robust and transparent information? How have their views been taken into account when choosing the proposed approach? This consultation could be demonstrated through customer letters of support or, as is done for some regulated businesses, a customer vote process. The consultation on an individual investment may be less important than consultation on a coherent overall strategy, either for asset management or mitigation (see Section 2.1).</p>
<p style="text-align: center;">Demonstrated consideration of options</p>	<p>The business should show it has considered a range of alternative ways to address the identified problem. What options have been considered in assessing both the scope and standard of the planned spending? What are the pros and cons of those options? Are the options consistent with any hierarchy of options identified in the long-term strategy? The business case should explain how and why the proposed approach has been selected over the alternatives to address the climate-related risk or achieve the desired level of mitigation. Both the direct costs of the investment and indirect costs of not acting should be considered.</p>
<p style="text-align: center;">Efficient cost</p>	<p>The efficient cost should reflect value for money, rather than a simplistic choice of lowest upfront cost. Least cost should be considered over the life of an asset for infrastructure investment, and as part of a long-term strategy for operating expenditure, including mitigation. Efficient cost also reflects externalities, in addition to the costs directly incurred by the regulated business and, ultimately, its customers.</p> <p>The upfront cost could be established through an appropriate process, such as a competitive tender.</p>

These four considerations are not independent from each other. For example, the demonstrated need should, in most cases, have regard to the views of customers, while the efficient cost will inform the consideration of options, and vice versa. Indeed, the consideration of options and the efficient cost also have a bearing on the need for the project. These principles apply to all industries, although the emphasis on each will reflect the circumstances of particular regulated businesses.

Specific matters about business cases for adaptation and mitigation are discussed in Sections 3.3 and 4.3.

2.3 Assessment approach

We are open to approving prudent and efficient spending that achieves climate-related objectives, either for adaptation or mitigation. Such spending is standard practice for well-managed businesses in competitive industries, and it is appropriate that our frameworks support regulated businesses making these expenditures as well, subject to prudence and efficiency requirements.

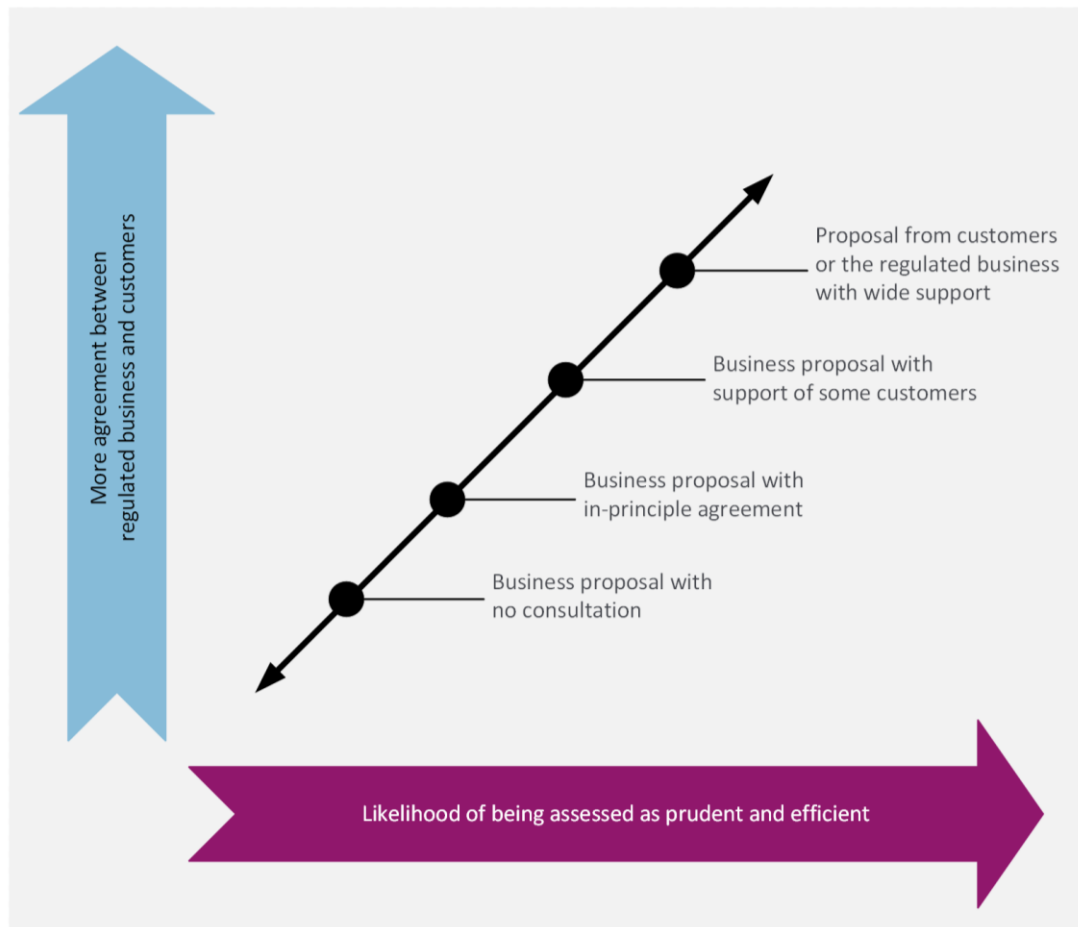
Our overall assessment framework for climate-related spending is broadly the same as our assessment framework for other types of spending proposals.

Our first preference is that regulated businesses and their customers reach consensus on strategies and spending approaches that suit all parties. Where there is an agreed capital investment or operating expenditure proposal, our role is likely to be light-handed. The exact mechanism for our assessment will vary by industry, depending on the specific regulatory framework.

In assessing any spending proposal, customer consent is as relevant as it is for non-climate-related spending. But consent is not determinative—there may be cases where spending that is opposed by stakeholders is appropriate for us to approve, including by having regard to broader community interests and expectations. For any investment or operating expenditure, with or without customer support, we would expect to see evidence that it is part of a long-term strategy, rather than being ad hoc. Relevantly, we will consider the interests of parties not at the table, including potential future customers and third parties affected by externalities.

Where we do perform assessments, we apply a proportionality principle when considering proposed spending. That is, the greater the proposed spending, the greater the scrutiny that we are likely to apply to the proposal. For example, a business case for a large-scale capital expenditure project will reasonably be expected to be more robust and quantitative in nature, and require a greater consideration of the various options, than a proposal for incidental operating expenditure (see Section 4.3). We are aware that this approach might provide an incentive to 'break up' a large project into smaller ones. Given we will be considering spending proposals as part of a regulated business's coherent strategy, we expect that any attempts to divide projects to avoid scrutiny will be unsuccessful.

Overall, our level of scrutiny is likely to be inversely related to the level of stakeholder support (see Figure 3).

Figure 3: Spectrum of consultation and agreement

2.3.1 Applying existing frameworks: ex ante and ex post

Our existing regulatory processes include both ex ante and ex post assessments. While climate-related spending can be assessed ex post, we consider a well-supported business case, which explains how a proposal delivers on the objectives of a long-term strategy, lends itself to ex ante assessment.

Framework

In many cases, we will be assessing any climate-related spending proposals using some form of our 'prudency of scope, standard and cost' framework (see Box 1). This prudency assessment approach is consistent with the business case approach discussed above, and with achieving value for money. Scope is the assessment of the need for the proposed spending; standard roughly covers consultation and options; and cost is common to both the business case and prudency guidance.

Reviewing the scope and standard of a climate-based spending proposal in advance will promote coherent and credible planning, while also addressing regulated business's desire for certainty. Cost can be considered in advance; however, it is more common, particularly for capital expenditure, that an ex post cost review is appropriate.

Box 1: Scope, standard and cost assessment

We typically apply a prudence and efficiency approach to assessing capital and operating expenditures.

The capital expenditure process is designed to promote appropriate investment by giving regulated businesses comfort that, if they invest in accordance with the framework, they will be able to recover their efficient costs over time. The approach considers three aspects of prudence:

- Scope—are the works needed?
- Standard—are the works of an appropriate standard and not over-designed, given the alternative options?
- Cost—are the costs efficient for the work done?

Prudent and efficient spending is just as important for operating expenditure as it is for capital investment. We have pursued this objective in our periodic pricing reviews and price monitoring investigations, by examining operating expenditure through public consultation and expert reports.

Ex post cost review

The cost of an investment can be estimated while it is being planned; however, the actual cost may only be known once the project has gone out to tender and been completed, with any resulting variations, including for matters that could not be reasonably anticipated ex ante. That is why, even where scope and standard of a spending proposal have been approved ex ante, the final cost review, particularly for capital expenditure, will usually best be completed ex post.

The process for assessing climate-related spending will, in most respects, be the same as that for other categories of investment and operating expenditure. The ex post review will tend to focus on upfront costs, given the ex ante review will have addressed the net present value of long-run costs. Therefore, we will have regard to the process by which the contractor (or in-house provider) was chosen and other evidence that demonstrates the cost was efficient.

While capital expenditure reviews have often incorporated an ex post element, our operating expenditure reviews have generally been ex ante, with the forecast costs for maintenance and other functions approved in advance of the relevant regulatory period.

We will, where necessary, make an ex post assessment of the scope and standard of proposed climate-related measures. But a regulated business will need to explain why that review could not have been completed ex ante. And our expectation that the proposal includes a robust justification, supported by a long-term strategy, will remain the same as for an ex ante assessment.

Specific aspects of our scope, standard and cost assessment approach, as they relate to adaptation and mitigation, are illustrated in Sections 3.4 and 4.5.

2.3.2 Information known at the time

We will assess regulated business's decisions based on the information that was reasonably available when those decisions were made. But that principle is easier to apply when the businesses are transparent about how they are making those decisions, as part of their consultation before committing to spending. Customers who are expected to fund some or all of

any expenditure once it is approved need to have sufficient information to make an informed decision on whether to support it. A regulated business should actively consult with its customers so that it understands—and takes into account—their preferences when making decisions.

Matters claimed to be ‘known at the time’, which the business only raises during a later ex post review, may be a sign of inadequate consultation or planning. And it is important to note that the test is ‘could have known at the time’—failure to take into account a consideration that should have been obvious is not an excuse.

2.4 Summary: prudent and efficient climate related spending

Businesses should have confidence that we will approve climate change related spending where it is prudent and efficient. In assessing proposed climate change related spending, we may consider matters such as whether such spending:

- is contemplated by the business’s coherent strategy, such as an asset management plan or a mitigation plan
- is consistent with the actions of similar businesses in workably competitive markets
- provides a least cost solution (assessed over the long term) in response to the climate-related problem that the business is addressing and does not reflect gold-plating
- reflects guidance from recognised regulatory bodies
- is in response to a legal requirement
- is endorsed by all or a majority of customers and potential customers
- does not unfairly or unreasonably discriminate between current and future customers
- is supported by a robust business case that demonstrates the proposed spending is the best from a range of options (both capex and opex where relevant).

These matters are considered further in the context of adaptation and mitigation expenditure in Chapters 3 and 4.

3 ADAPTATION

Investments to adapt to climate change will, for the most part, be assessed by us in the same way we review other spending. However, there are some considerations specific to adaptation that warrant separate guidance. This chapter provides guidance on:

- asset management strategies (Section 3.2)
- business cases for adaptation spending (Section 3.3)
- our assessment approach for adaptation proposals (Section 3.4).

Specific aspects relating to mitigation are discussed in Chapter 4.

3.1 Making infrastructure resilient

Infrastructure investments have always been made in the face of uncertainty about future weather-related events, ranging from drought to strong winds to flooding. Bridges, dams, embankments and other structures and earthworks have been designed based on the best information available at the time about the expected frequency and severity of these events. Overall, the goal is to make the infrastructure sufficiently resilient to meet customers' service expectations and keep the community safe, at an efficient cost.

Climate change means past experience is becoming a less reliable predictor of what is required to provide the necessary resilience. More extreme weather events will mean some infrastructure that was appropriate for past expectations needs to be reinforced or replaced—or possibly even relocated—to prepare for the expected future weather events.

Adaptation and paying insurance premiums are different approaches to risk, with different effects on asset owners and their customers. Successful adaptation can mean no service interruption, or at least much less. Insurance necessarily requires a longer period for recovery—time to process the claim and repair the damage. Given the importance of regulated infrastructure, particularly where the infrastructure is a bottleneck that has implications for the broader economy, adaptation will often be preferable to accepting a higher risk of future disruption.

Our role as a regulator is to assess the prudence and efficiency of proposed adaptation projects. And the starting point for establishing that prudence and efficiency will be a well-articulated asset management strategy, which informs the business case for a specific investment.

3.2 Asset management strategies

Adaptation investments only make sense if they are aimed at achieving or maintaining a particular level of service in the face of changing climate expectations. These objectives should be included in an asset management strategy that:

- sets out targets such as an expected capacity, at an agreed level of reliability
- provides a framework for achieving those goals.

Individual projects can then be considered in the context of how they fit into the framework and contribute to achieving the objectives. Where possible, the objectives should be measurable, and the strategy should include provisions for monitoring infrastructure performance.

In most circumstances, an asset management strategy for climate change will look similar to—or form part of—a business's overall strategy for its infrastructure. The strategy, including a risk

management process, will provide a basis for weighing different investments and deciding which ones are appropriate to progress and submit for approval. Long-term planning can also consider the appropriate balance between capital and operating expenditure in response to climate-related events.

Damage to infrastructure can have disproportionate impacts on customers, compared to impacts on asset owners. This makes consulting with customers crucial to developing an appropriate asset management plan.

Given that customers, particularly those using transport infrastructure, are expected to pay for adaptation expenditure and are affected by damage to the facility, they are best placed to assess the level of service reliability they require and the consequences of not having it.⁸

A long-term strategy that reflects the risks, and customers' preferences on how to handle the risks, will provide a strong basis for choosing whether and how to adapt infrastructure to cope with climate change.

3.3 Business case for adaptation

The general framework for a climate-linked business case is set out in Section 2.2. Specific aspects of our framework—need, consultation, options and efficiency—as they apply to adaptation, are discussed in this Section. Mitigation-specific considerations are discussed in Section 4.3.

3.3.1 Demonstrated need

The business case supporting any adaptation investment that replaces or augments an existing asset will in most cases be based on an identified increase in risk of damage and disruption, compared with the initial risks identified when the existing infrastructure was built. The business case may quantify the expected incidence and cost of the climate-related risk by applying a statistically robust method, for example an actuarial assessment. But in some cases, this approach will not be feasible, given the increased uncertainty about future climate effects. In this situation, the analysis may be qualitative. The choice of a quantitative or qualitative assessment will depend on the circumstances and may involve other considerations, including the availability of data, the certainty around quantification and the size of the proposed expenditure. And some need may be absolute—there is no acceptable risk of a dam wall failure that might inundate a major city, for example.

The need for the spending on preventative works can be demonstrated based on broader factors than just direct financial cost, including uncertainty, government policy obligations and alignment with community expectations.

The need will consider both the expected cost for the regulated party to repair damage from a weather-related event and the indirect disruption costs to customers, in light of their service requirements.

3.3.2 Consultation with customers

The risk preferences of customers will often be fundamental to deciding the appropriate standard of infrastructure resilience, particularly as they will be expected to fund a substantial investment

⁸ This may be different for water businesses—for example, a dam failure will have a broader impact than just the effect on customers.

through the regulated tariff or price.⁹ For example, how much do they want adaptation investment to reduce the chance of future supply chain disruptions? And at what cost? In some cases, more of the consultation will have taken place at the asset management strategy level, reducing the need to consult about specific projects (see Sections 2.1 and 3.2).

3.3.3 Adaptation options

The planning for any proposed infrastructure investment should include considering alternative ways of achieving an equivalent outcome. These options may include operating expenditure, or changes in the way the infrastructure is used.¹⁰ So for water infrastructure, behavioural changes by customers may be an alternative to some drought-related adaptation projects. And a rail operator may find that temporary speed restrictions address potential weaknesses in the track structure after heavy rainfall. There may also be different standards of resilience (i.e. different levels of reliability) that reflect a trade-off between cost of service and expected impact of future disruptions.

3.3.4 Efficient cost and proportionality

The regulated business should explain how the proposed adaptation investment is proportionate to the risk-weighted cost of the expected climate-related event. The assessment may take the form of a cost–benefit analysis or similar exercise. While the final cost will be assessed ex post (see Section 2.3.1), any investment decision should be based on the best estimate of the net present value of the costs and benefits of the project.

3.4 Assessment approach for adaptation

Most climate-related infrastructure investments will come under our existing capital expenditure assessment frameworks, which provide for a final review before the investments are approved for inclusion in the regulatory asset base. This gives assurance to customers that they are not being asked to fund inefficient investments. It also helps support the principle that a regulated business should be able to expect that, except in extreme circumstances, it will be able to recoup those efficient costs over the economic life of the assets.

Given one of the biggest factors in choosing appropriate climate-related investments is likely to be avoiding adverse effects on customers (e.g. expected disruption to services if there is catastrophic damage), the approach to addressing such events should very much be settled by agreement with customers. However, there may be circumstances where a climate-related investment has not been subject to the preapproval process (discussed in Section 2.3). In such cases, we would still expect that the material supporting a claim for regulatory approval would cover the considerations for an ex ante review— need, consultation, options and efficiency (Table 1).

Where customers and potential customers disagree, we may have regard to, among other things:

- the urgency of the expenditure
- the appropriateness of adaptation compared to operating expenditure
- the likely cost and lifespan of the adaptation project

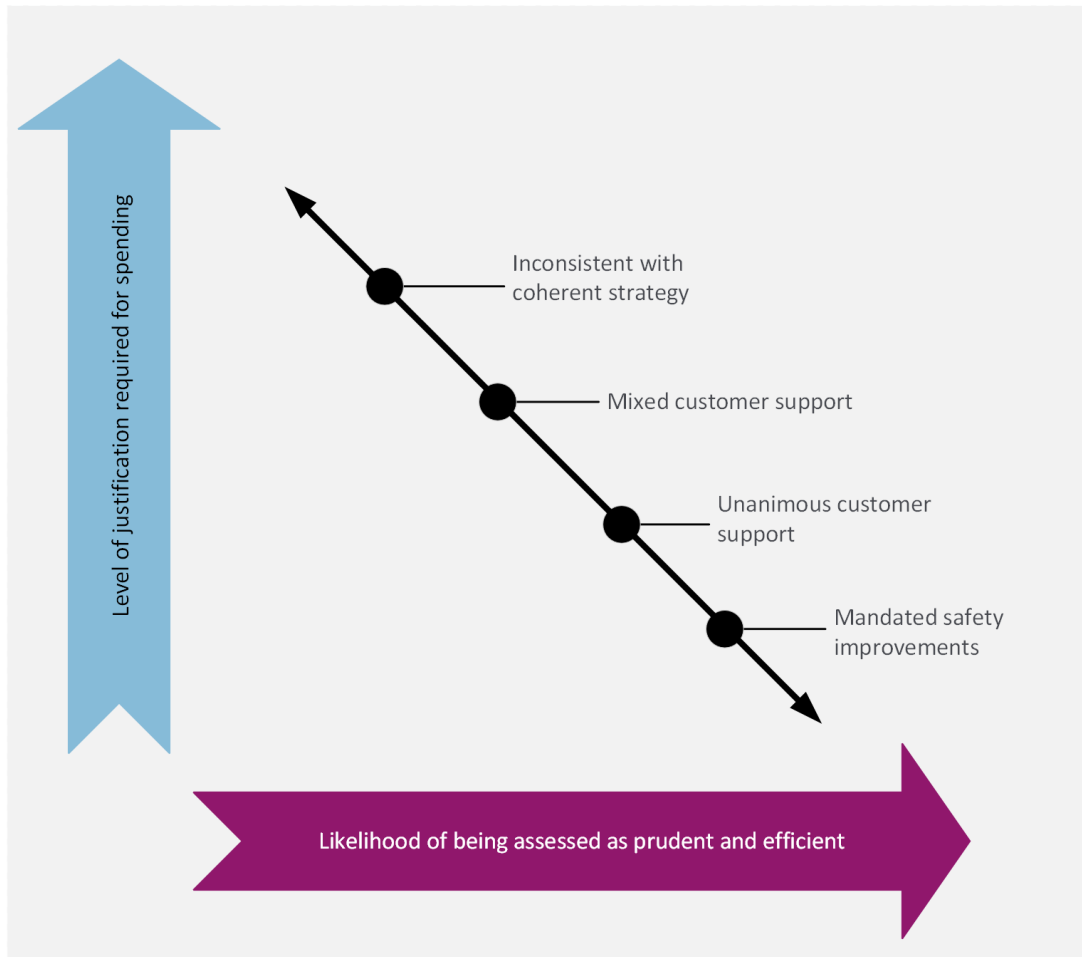
⁹ An exception will be externalities. For example, dam safety may not have a material effect on customers' security of supply, but it is a fundamental investment consideration for water businesses.

¹⁰ For example, it may be more efficient to reinstate sections of rail track after flooding than to reinforce extensive sections of the network in all areas where there might be a flood.

- whether the project is necessary to enable the facility to provide the service over the period of likely demand
- the likely burden of the expenditure on various classes of customers, including by having regard to their likely period of utilisation of the service.

Our broad approach to assessing adaptation spending is depicted in Figure 4.

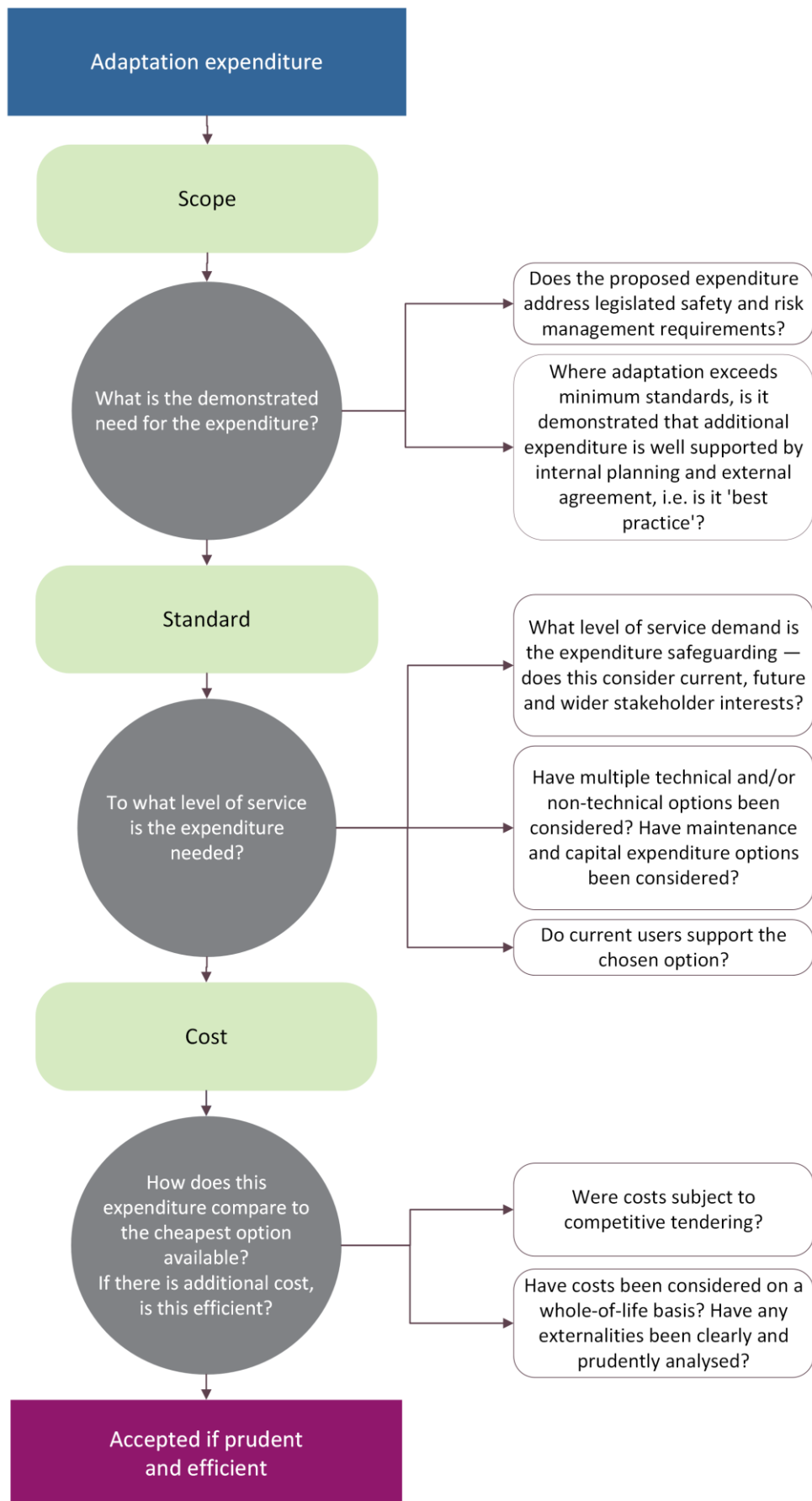
Figure 4: Adaptation assessment guide



As discussed in Chapter 2, much of our assessment of capital expenditure is based on a scope, standard and cost approach. In general, similar considerations will apply to capital expenditure that is required to adapt to climate change.

An example of how we might assess adaption expenditures using the scope, standard and cost framework is shown in Figure 5.

Figure 5: Scope, standard and cost assessment for adaptation



3.5 Summary: prudent and efficient adaptation spending

Some matters we may consider in assessing the prudence and efficiency of an adaptation proposal are whether:

- the choice of adaptation is consistent with the business's coherent strategy, such as an asset management plan, master plan or expansion strategy
- adaptation is necessary to protect the assets providing the service and is proportionate to the risks associated with climate change
- adaptation expenditure, as opposed to operating expenditure, is appropriate given the expected timeframes over which the asset will be used (e.g. mine lives)
- the standard of the proposed adaptation project is fit for purpose and not excessive
- insurance has been considered as a valid way to manage risk
- the adaptation expenditure can be clearly defined or specified
- the chosen project is likely to reflect efficient cost, including externalities, over the whole life of the asset
- it attracts support from customers, potential customers and affected members of the broader community
- the approach to adaptation reflects relevant Australian standards, industry best practice or is otherwise appropriate and necessary
- it adequately balances the interests of the business in maintaining the viability of the infrastructure with the interests of customers and potential customers in having reliable and cost-effective access to the service
- it is proportionate in scale to the risk-weighted scale of the expected climate event and the period over which there is demand for the service.

4 MITIGATION

Our assessment approach will be applied to mitigation expenditure in much the same way as it applies to other forms of spending. Detailed below are broad principles that apply to mitigation. This chapter covers:

- the mitigation strategy (Section 4.2)
- the business case for mitigation (Section 4.3)
- our assessment approach (Section 4.4).

4.1 Reducing greenhouse emissions

Our role in assessing proposals for mitigation expenditure aligns with our role for spending proposals generally for regulated businesses. We assess the prudence and efficiency of proposed mitigation spending, including whether it is consistent with a business's strategy and reduces emissions created from providing regulated services. Our assessment approach will be based on the information reasonably available at the time.

Our mitigation guidance aims to assist regulated businesses, their customers and other stakeholders in discussing mitigation issues. We provide definitions that we believe are appropriate to such discussions—but we are aware that the way some of the terms are applied can vary, depending on the regulated firm, its business- or industry-related activities and other specific circumstances.

4.1.1 Scope 1, 2 and 3 emissions

For greenhouse gas mitigation in industrial and commercial settings, it is common for businesses (and other parties) to identify different types of emissions¹¹, in particular:

- Scope 1 emissions—direct emissions from a company's owned or controlled sources.
- Scope 2 emissions—indirect emissions from purchased or acquired energy.
- Scope 3 emissions—indirect emissions that occur in the value chain of the reporting business. Scope 3 emissions can be further divided into upstream and downstream emissions.¹²

4.1.2 Best practice and credible approaches

Approaches can generally be considered best practice where there is broad community acceptance and endorsement of a mitigation approach (that is not mandated), or where the measures have been widely adopted by comparable firms in markets that are workably competitive. This could occur where businesses, their customers and stakeholders identify abatement or climate planning actions in anticipation of future climate scenarios, government policy or community sentiments. Businesses and their customers are best placed to assess trends in industrial behaviour, new technology and operational practices so as to incorporate these into

¹¹ Regulated businesses and customers are encouraged to consult leading standards. The Green House Gas Protocol was established in 2001 and revised in 2015—see [Greenhouse Gas Protocol](#) website, n.d., accessed 14 September 2023.

¹² Greenhouse Gas Protocol, *A Corporate Accounting and Reporting Standard*, revised edition, March 2004, p. 25.

their own strategies and planning, thereby informing best practice decision-making. See Box 2 for further clarity on best practice.

Box 2: What is best practice?

Best practice refers to the most effective practices adopted by similar businesses. We encourage businesses to conduct their own assessment of best practice. We are open to submissions on best practice, which changes as technology advances and policy evolves. At the time of writing (September 2023), we suggest that best practice mitigation should be informed by:

- recognised international standards for organisations' policies and procedures
- strategies adopted by similar regulated businesses operating in other domestic or international jurisdictions
- Clean Energy Regulator guidance
- strategies adopted by businesses subject to the Safeguard Mechanism (See Box 3).

4.1.3 Offsets

Offsets play a role in contributing to the overall mitigation of emissions—but are not intended to be the sole mitigation approach.^{13,14}

The key characteristic of an offset is that the party using it is still emitting greenhouse gases. The 'offset' does not stop those emissions; rather it counterbalances them. This happens by the offset provider either sequestering carbon from the atmosphere, or avoiding an activity that would otherwise release more greenhouse gases.

An offset provided by a third party is typically referred to as a 'tradeable offset'. One of the most common forms of offset is an Australian Carbon Credit Unit (ACCU), approved by the Australian Government. This is a 'tradeable offset' that has a transparent market price.

We will generally accept the efficacy of government backed offsets such as ACCUs, as part of a mitigation strategy, where this reflects an efficient way to achieve the desired emissions reduction. For 'bespoke' offsets, that are not tradeable, the business will need to demonstrate they are effective in delivering the claimed mitigation.

If a regulated business proposes to pursue offsets, it needs to show why alternative options, including direct mitigation, would be more expensive or otherwise less effective in achieving desired abatement outcomes. The business will also need to demonstrate that the decision to use offsets is consistent with its mitigation strategy and any option hierarchy set out in that strategy.

¹³ United Nations, [Paris Agreement](#), United Nations Framework Convention on Climate Change, 2015, Article 6, para 4, accessed 16 March 2023.

¹⁴ Businesses subject to the Safeguard Mechanism will be required to publicly justify their use of offsets to the Clean Energy Regulator if they use 30% or more offsets to meet their baseline. The likely intention of this is to incentivise greater use of direct abatement technology. Refer to Clayton Utz, [Last minute Safeguard Mechanism Reforms introduce new obligations](#), 3 April 2023, Clayton Utz website, accessed 5 April 2023.

4.2 Mitigation strategy

Mitigation investments should not be ad hoc in nature but should be part of a coherent strategy to address climate change. The strategy should set out:

- the objective of a regulated business's mitigation strategy
- a framework or pathway for achieving the objective.

Mitigation spending that supports a clear strategy is more likely to be prudent and efficient. Ideally this strategy will be based on current best practice, including being forward-looking and containing quantifiable information that can be easily used as the basis for justifying the subsequent business case. Given the inherent uncertainty about climate policy and outcomes, some of the assessment may need to rely on qualitative analysis.

A coherent mitigation strategy will have a goal of at least meeting legislated requirements (see Box 3). But in many cases a best practice strategy will move beyond those mandated emissions targets, as legislation tends to lag, rather than lead, community expectations.¹⁵ Regulated businesses and their customers are best placed to understand how these broader expectations impact their business decisions. Where they disagree, we will consider that the law is a minimum standard for efficient levels of mitigation, not a maximum standard. In other words, it may be efficient and prudent for a regulated business to develop strategies that reflect community and investor expectations and anticipate changes to legislation and government policy.

In considering the proposed mitigation activities of a regulated business, we will have regard to whether its climate strategy is consistent with that adopted by a well-managed business operating in a workably competitive market. As such, we will assess whether the strategy is prudent and efficient, and not excessive or an opportunistic attempt at 'gold plating'.

Matters that a regulated business may consider for its climate change strategy are:

- alignment with Commonwealth or state government emissions reduction targets
- compliance with any relevant legislation or voluntary industry-wide strategies
- a rationale for why alignment with the chosen target is appropriate (e.g. to avoid asset stranding, achieve ESG priorities or meet community expectations).

4.3 Business case for mitigation

The general framework for a climate-linked business case is set out in Section 2.2. Specific aspects of our framework—need, consultation, options and efficiency—as they apply to mitigation, are discussed in this section. Adaptation-specific considerations are discussed in Section 3.3.

4.3.1 Demonstrated need

The business case supporting any mitigation proposal will in most cases be based on an identified need to reduce emissions. At the least, we would expect that a proposal will identify the problem that the expenditure is seeking to solve. The evidence provided by the regulated business will depend on the circumstances of the particular spending proposal. However, where independently quantifiable data such as greenhouse gas emissions is available, then we would expect that this would be used to establish the need for the proposed expenditure.

¹⁵ Community expectations can evolve over time and can be revealed by rising levels of activism and litigation.

Qualitative factors can also be used to support the need for the expenditure. Factors such as government policy and legislation (Box 3), changing industrial behaviours (best practice considerations), community expectations and financial imperatives will all contribute to demonstrating the need for mitigation.

Where relevant, the mitigation expenditure proposal should demonstrate:

- benefits to customers (e.g. reducing scope 3 emissions)
- broader community-wide benefits from reducing emissions (e.g. externality impacts)
- benefits to the regulated business (e.g. alignment with community expectations).

The distribution of benefits will vary depending on the nature of the proposal.

The role of climate change legislation is discussed in Box 3.

Box 3: Safeguard mechanism and broader legislative environment

At time of writing (September 2023), the Safeguard Mechanism is the main legislative instrument for covering the allowable greenhouse gas emissions of businesses. It sets a baseline of emissions that a business's facility can emit and be subject to mandated abatements. This current setting applies to 215 large businesses, which emit more than 100,000 tonnes of carbon dioxide.¹⁶

While none of the businesses we regulate are currently subject to the mechanism, government policy may change.¹⁷ Many businesses already report on scope 1 and 2 emissions, which is a requirement of businesses subject to the mechanism.

The federal government is also in the process of expanding the AASB's role in climate change related financial disclosures. These standards are likely to mandate many practices that well run businesses are already doing, such as disclosing scope 3 emissions and climate change effects in both director reports and financial statements (see also Section 2.1.3).¹⁸ For many businesses, these changes are likely to reflect their current practices, while for others these changes may be new (Section 4.2).

We encourage regulated businesses and their customers to remain mindful of the operation of the Safeguard Mechanism and consider further relevant legislation to inform their responses to climate change.

4.3.2 Consultation with customers

Consultation and agreement under the negotiate–arbitrate and other regulatory frameworks will be a major consideration of any mitigation proposal. Our preference will remain for regulated businesses and their customers to consult on what type of mitigation is appropriate.

4.3.3 Consideration of options

The planning for mitigation activities should consider alternative ways of achieving the regulated business's mitigation goals, including different types of direct and indirect mitigation activities.

¹⁶ Department of Climate Change, Energy, the Environment and Water, *Safeguard Mechanism Reforms*, fact sheet, Australian Government, May 2023.

¹⁷ Aurizon Network has unregulated operations that are subject to the mechanism, while several customers of regulated services are subject to the mechanism.

¹⁸ Treasury, *Climate-related financial disclosure*, consultation paper, Australian Government, June 2023.

Our assessment of any option chosen will consider whether the business has followed an approach consistent with its mitigation strategy. For example, if a business's mitigation strategy outlines a hierarchy of options that prioritises emissions avoidance at first instance, it would be incongruous to explore offsets without first demonstrating that emissions avoidance was either not feasible or prohibitively costly (see Section 4.1.3).

The firm's assessment of the various options would also need to be proportional to the proposed expenditure.¹⁹ For mitigation achieved through large-scale capital expenditure, this should be in the form of a cost-benefit analysis (or similar quantitative analysis) of the considered options. For example, where a regulated business proposes building new infrastructure with specific claims of (net) zero emissions, then the options analysis should consider, where reasonable, the need to report the amount of greenhouse gases created and abated throughout the planning, construction and running time of the infrastructure—which in turn would be compared against other options. Alternatively, where a regulated business proposes to offset a small level of emissions with only an incidental increase in operational expenditure, then the need for reporting and monitoring of emissions would be lessened also.²⁰

Where all customers support the mitigation expenditure, our review of whether the expenditure is appropriate is likely to be light-handed and focus on the impacts on potential future customers and other stakeholders, including the broader community.

4.3.4 Efficient cost

A regulated business should also provide an analysis of the efficient cost of the proposed option. For some operational expenditure, this might simply be evidence of tendering quotes or current ACCU prices (see Section 4.1.3).

For mitigation, benefits should ideally be quantified for use in the analysis. These can be both indirect benefits (financial and non-financial) for the regulated business and its customers, or externality benefits for the community. Where these benefits cannot be quantified, then a well-explained, qualitative justification may be sufficient.

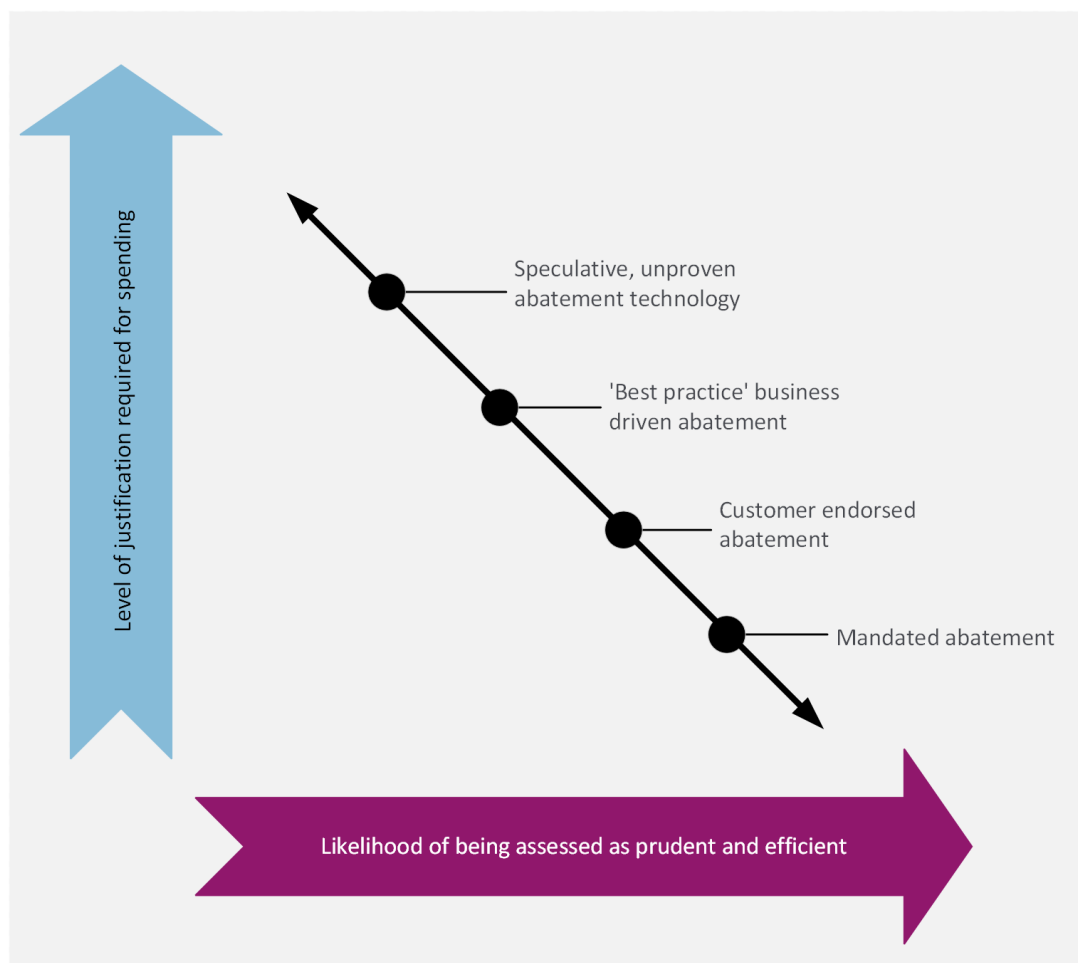
In the case where a project or activity reduces a negative externality, the proposal might quantify the effect. For example, where removing freight from road to rail reduces road congestion and scope 3 emissions, these benefits to the community could be quantified.

4.4 Assessment approach for mitigation

As with other types of expenditure assessments, our approach will consider proposals from regulated businesses and their customers in the context in which they are proposed, giving weight to negotiated outcomes grounded in rigorous analysis. For mitigation expenditure, this will result in mandated and customer agreed outcomes having a higher likelihood than other expenditure of being assessed as prudent and efficient, all else equal. However, ambitious mitigation proposals that use emerging, unproven or speculative methods and technology, may still be approved under our regulatory frameworks, even through they are considered higher risk, and may have attracted less customer support. Different types of mitigation proposals can be thought of as a continuum, with higher risk proposals being less likely to be assessed as prudent and efficient (Figure 6).

¹⁹ In assessing any proposal, we would be mindful of any potential incentive of a regulated business to disaggregate projects to reduce scrutiny.

²⁰ Mandated as well as best practice disclosure regimes will help inform our assessment.

Figure 6: Mitigation assessment guide

Our existing regulatory frameworks are flexible and responsive to the needs of regulated businesses that may seek to propose prudent abatement spending which exceeds legal requirements. This includes where expectations of government policy changes or community pressures result in regulated businesses proposing to adopt more ambitious mitigation activities that may require the use of emerging, unproven or speculative mitigation practice and technology. Our frameworks can assess these higher risk proposals, but will be more rigorous than if the abatements were mandated or agreed (see Figure 7). For example if, after a natural disaster, community pressure is applied to businesses to decarbonise their operations more rapidly²¹, then businesses may adopt new mitigation targets and use new technology to speed up the decarbonisation of their operations. In this case, our framework can assess these new spending proposals taking into consideration changed policy and community expectations.²² As such, our assessments will consider that speculative or unproven technology may become more

²¹ Recent federal government spending on natural disasters has greatly exceeded forecasts and budgeted amounts. See T Satherlay and D May, *Natural disasters and climate risk*, Parliamentary Library Briefing Book of the 47th Parliament, June 2022, Parliament of Australia, Australian Government, accessed 28 August 2023. Where there is continued pressure to spend more on disaster preparation and relief, there will likely be greater political pressure exerted on businesses to contribute more to managing climate change.

²² Assessments will be performed with information that is reasonably available at the time, including that mitigation expenditure is proportional and well justified to the context in which it is proposed and does not merely exploit community anxieties around climate change to justify 'gold plating'.

widely acceptable over time. This could particularly be relevant where businesses face pressure to manage scope 3 emissions, and where these are of very significant scale.

4.4.1 Level of scrutiny

Our assessment approach will vary depending on which drivers lie behind the proposed mitigation: legal requirements, customer endorsement, or the business's strategy alone. Where mitigation is mandated or has unanimous customer support, our scrutiny is likely to be more light-handed. Where the drivers for mitigation are not legal or contractual and the benefits to customers are less clear, then our scrutiny will be more rigorous and detailed (Table 2).

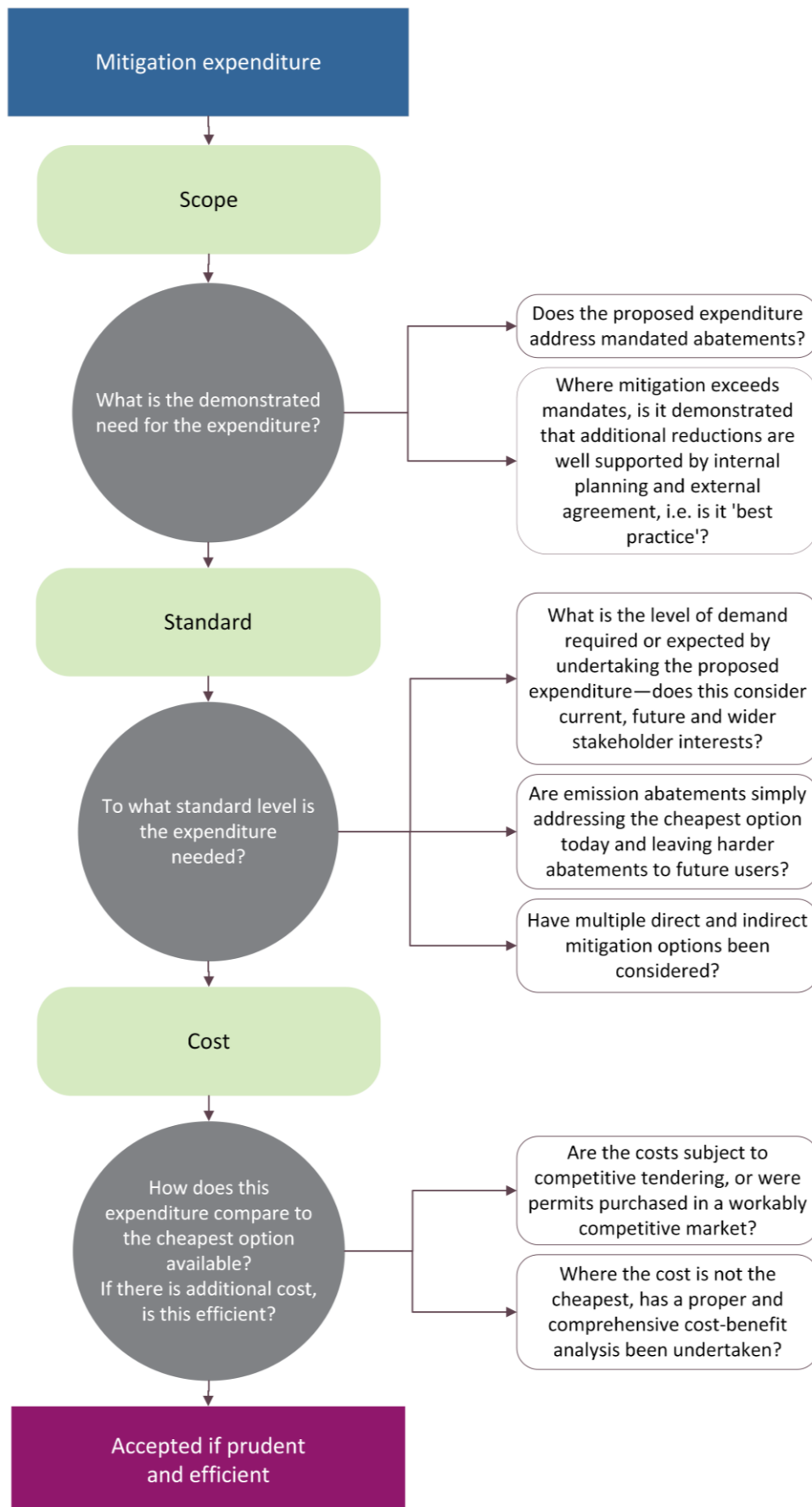
Table 2: Levels of scrutiny for mitigation expenditure approaches

<i>Consideration</i>	<i>Scrutiny in assessment of prudence and efficiency</i>
Speculative, unproven technology and or high-risk abatement practices	Where mitigation proposals are highly speculative and are not certain to be delivered successfully—such as projects at a research and development stage or technology that has high establishment costs—then that mitigation expenditure would require significant analysis and assessment in order to be found prudent and efficient. These proposals are unlikely to be assessed as prudent and efficient, unless the context and the evidence is compelling. ²³
'Best-practice' business-driven abatement	Where business-driven abatement is not a legal requirement or customer-endorsed but is considered best practice, we consider that mitigation expenditure can be demonstrated to be prudent and efficient. In such circumstances, we are likely to require a strong justification for the expenditure.
Customer-endorsed abatement	Where a regulated business receives customer endorsement of its proposed mitigation expenditure that goes beyond the legally required level of abatement, we consider that customer endorsement will act as a strong justification for establishing prudence. Our consideration of efficiency would then focus on whether the analysis properly takes into account any impacts on third parties, including future customers and the broader community. This would typically be revealed by an approach such as a cost-benefit analysis.
Legal or policy mandate for abatement	Our simplest assessment of mitigation expenditure would be for mitigation that is legally required. In this instance, prudence of mitigation expenditure is readily established by a legal obligation. We would then seek to confirm that the proposed expenditure is the lowest whole-of-life cost method of achieving the abatement. This is typically done by an approach such as an options analysis.

We are likely to apply some form of our scope, standard and cost assessment approach to assessing proposed mitigation expenditure (see Box 1). Figure 7 illustrates broad principles for these assessments.

²³ Subject to prevailing operational and abatement practices, such highly speculative practices may become more or less acceptable over time (see Section 4.4)

Figure 7: Scope, standard and cost assessment for mitigation



4.5 Summary: prudent and efficient mitigation spending

When we assess the prudence and efficiency of a mitigation proposal, we may consider matters such as whether:

- the choice of mitigation expenditure is consistent with the mitigation strategy
- mitigation is necessary for the facility to comply with relevant laws or to retain its social licence to operate
- the mitigation proposal removes, reduces or counterbalances the regulated business's emissions
- mitigation reduction estimates are collated in a recognised and/or consistent way
- the climate risk has been identified using recognised data
- the means of mitigation are demonstrated to be effective in achieving necessary abatement
- there is documentary evidence of customer engagement
- the business case is clear and properly justified
- the proposed option is likely to represent efficient cost over the life of the activities
- broader issues of sustainability or social and governance obligations have been considered, where relevant²⁴
- the proposal delivers a net social benefit²⁵
- the proposal is aligned to current best practice (see Box 2).

²⁴ ISO, *IWA 42:2022(en) Net zero guidelines*, 2022, Online Browsing Platform, accessed 10 March 2023.

²⁵ Net social benefit is when a proposed expenditure is expected to generate benefits that exceed its costs. These benefits and costs can be financial (e.g. the cost of purchasing solar panels) or non-financial (e.g. the benefit of reduced emissions) in nature. Both benefits and costs are quantified, if possible, for the life of the expenditure in question and are compared on a net present value basis.

5 REGULATORY PROVISIONS

Our review of any climate-related spending proposals will be governed or guided by a range of legislation, regulatory documents and precedents, as well as instruments such as government direction notices.

While we must not and will not pre-judge any proposals, we have sought to summarise some of the relevant considerations that we may be required, or choose, to take into account. Regulated businesses that are planning spending for us to review may wish to consider these matters when preparing their submissions and refer to them in accompanying material.

We discuss separately:

- access-related proposals for rail and ports under Part 5 of the QCA Act (Section 5.1 of this guideline)
- water-related proposals under Part 3 of the QCA Act (Section 5.2 of this guideline).

We also discuss briefly how competing considerations might be weighed against each other (Section 5.3).

5.1 Access to rail and ports (Part 5 of the QCA Act)

Services that have been declared for access—those provided by rail and DBCT—are subject to the provisions of Part 5 of the QCA Act, some of which relate directly to environmental considerations.

Our obligations under Part 5 are consistent with enabling prudent and efficient expenditure, whether the expenditure is climate related or not. Accordingly, climate change related proposals will be assessed according to their merits and pursuant to our responsibilities under the QCA Act.

We apply the criteria in s. 138(2) when we assess draft access undertakings and we apply the criteria in s. 120(1) when we determine access disputes. Aspects of the criteria in ss. 138(2) and 120(1) that might apply to climate change related proposals are set out in this section.

5.1.1 Object clause

The object clause of Part 5 of the QCA Act (s. 69E, referred to in ss. 138(2)(a) and 120(1)(a)) states:

The object of this part is to promote the economically efficient operation of, use of and investment in, significant infrastructure by which services are provided, with the effect of promoting effective competition in upstream and downstream markets.²⁶

Links to climate change

The object clause focuses on the economically efficient operation of, use of and investment in infrastructure, which then promotes workable or effective competition in dependent markets.²⁷

²⁶ QCA Act, s. 69E.

²⁷ The terms ‘workable’ and ‘effective’ competition are used interchangeably in competition literature. The Productivity Commission noted that ‘[e]ffective competition requires that firms should be subject to a reasonable degree of competitive constraint from actual or potential competitors, or from customers, as opposed to a theoretical—and unattainable—ideal of perfect competition’ (Productivity Commission, *National Access Regime*, inquiry report no. 66, 2013, p. 72). We also provided an expansive discussion of this concept in our handbook for

The consistency of climate change expenditure with the object clause will depend on the specific circumstances of the individual expenditure proposal. For instance:

- Prudent and efficient adaptation expenditure to enable the facility for the service to operate in light of uncertain and unpredictable future climate events is likely to be consistent with the object clause. Likewise, prudent and efficient adaptation investment that improves the reliability of the service and reduces costs on a whole-of-life basis is likely to be consistent with the object clause.

In both cases, upstream and downstream markets depend on the continued availability of services provided by natural monopolies with bottleneck characteristics (such as ports or rail facilities), and the continued provision of the service by the regulated facility is consistent with promoting competition in those markets.

- Prudent and efficient mitigation expenditure may be consistent with the object clause if it is necessary to comply with mandated government targets or is required by customers as part of satisfying scope 3 emissions reduction requirements. Mitigation expenditure in these circumstances is likely to be consistent with the ongoing efficient operation and use of the bottleneck facility and the availability of the relevant service, and so is likely to be consistent with the promotion of competition in upstream and downstream markets.

Ultimately, our role will be to consider whether adaptation and/or mitigation expenditure is appropriate to approve, having regard to the object of Part 5 of the QCA Act and the other criteria in s. 138(2). Some elements of s. 138(2) that may be particularly linked to environmental outcomes are discussed below.

5.1.2 Public interest

The public interest is specified in ss. 138(2)(d) and 120(1)(d) of the QCA Act. The public interest is a broad test that will be shaped by the context of the particular assessment.²⁸

In the Pilbara matter, the High Court said:

[W]hen used in a statute, the expression “public interest” imports a discretionary value judgment to be made by reference to undefined factual matters ... when a discretionary power of this kind is given, the power is “neither arbitrary nor completely unlimited” but is “unconfined except in so far as the subject matter and the scope and purpose of the statutory enactments may enable the Court to pronounce given reasons to be definitely extraneous to any objects the legislature could have had in view”.²⁹

Environmental concerns are within the ambit of the public interest. For example, it is generally accepted that mitigating emissions generates benefits that extend beyond the regulated business and customers and impact the broader community.

In *Waratah Coal v Youth Verdict Ltd*, the Land Court of Queensland, in considering the granting of a mining lease to Waratah Coal, had to consider whether, among other things, the mining lease

applying for declaration or revocation under Part 5 of the QCA Act (QCA, [Applying for declaration or revocation under Part 5 of the QCA Act—handbook for applicants](#), March 2022, pp. 74–77).

²⁸ See QCA, *Queensland Rail's Draft Access Undertaking*, decision, June 2016, p. 273. A discussion of the term ‘public interest’ can also be found in our handbook on declaration—see QCA, [Applying for declaration or revocation under Part 5 of the QCA Act—handbook for applicants](#), March 2022, pp. 89–90.

²⁹ *The Pilbara Infrastructure Pty Ltd v Australian Competition Tribunal* [2012] HCA 36 at [42].

would be in the public interest.³⁰ In refusing to approve the mining lease and the related environmental authority, President Kingham said:

As a matter of law, I have decided I can take the emissions into account in applying the principles of ecologically sustainable development (for the EA application) and in considering whether the applications are in the public interest (on both the ML and the EA applications).

...

... there is sufficient certainty in the science to understand the relationship between emissions and temperature. This helps in weighing arguments about the significance of the contribution of emissions from combustion of the Project coal to climate change.³¹

Some adaptation expenditure may also be in the public interest, including where inaction may lead to broader community impacts. For example, climate considerations may require adaptation expenditure to fortify a dam wall, where failure to do so may lead to a dam collapse. Likewise, climate considerations may require adaptation expenditure to protect water security.

5.1.3 Other QCA Act (Part 5) factors

Climate change expenditure may also be related to other factors in ss. 138(2) and 120(1), for instance:

- the legitimate business interests of the owner/operator of the service (ss. 138(2)(b) and 120(1)(b))—adaptation expenditure may help protect the facility providing the service or reduce the costs of insurance, while mitigation expenditure may be consistent with the social licence of the business in respect of emissions. Alternatively, mitigation expenditure may be prudent in expectation of government emissions requirements or expected future emissions requirements
- the interests of those that seek access to or have rights to the service (ss. 138(2)(e) and 120(1)(c))—mitigation expenditure by the provider of the service may be consistent with achieving scope 3 emissions reduction objectives held by customers in the supply chain. It is also relevant whether the proposed climate-related spending serves the interests of existing and future customers more broadly
- any other matters we consider relevant (ss. 138(2)(h) and 120(2))—these provisions are expressed in broad terms and enable us to have regard to other matters that we consider relevant. These matters could include environmental considerations, the behaviour of other like businesses in workably competitive markets, and community expectations and human rights.³²

5.1.4 Other relevant material for access

In assessing a climate change related proposal, we are likely to have regard to the criteria in the QCA Act as well as access undertakings approved pursuant to the Act. This will include the scope,

³⁰ The Land Court was required to make recommendations, but not the final decision, on the applications. The Minister for Resources would decide the mining lease application. The Chief Executive of the Department of Environment and Science would decide the environmental authority application and has subsequently denied it: Department of Environment and Science, *Waratah Galilee Coal Mine EA refused*, Queensland Government, media release, 3 April 2023.

³¹ *Waratah Coal Pty Ltd v Youth Verdict Ltd & Ors (No 6)* [2022] QLC 21 at [25], [28].

³² See Section 1.4 of this guideline.

standard and cost approach set out in the capital expenditure approval provisions of the rail and ports access undertakings. These provisions include:

- Queensland Rail: Schedule E (Maintaining the Regulatory Asset Base) in the 2020 access undertaking
- Aurizon Network: Schedule E (Regulatory Asset Base) in the 2017 access undertaking
- Dalrymple Bay Infrastructure Management: clauses 12.5(e) to (n) in the 2021 access undertaking.

5.2 Water pricing (Part 3 of the QCA Act)

Part 3 of the QCA Act relates to the pricing practices of monopoly business activities.³³ To date, it has principally been applied to reviews of government-owned water businesses. The assessment criteria in Part 3 (s. 26) have some similarities to the access approval criteria in Part 5 (ss. 138(2) and 120(1)). However, there are significant differences (Sections 5.2.1 to 5.2.4).

5.2.1 Impact on the environment

The QCA Act requires the QCA in an investigation of monopoly business pricing to have regard to ‘the impact on the environment of prices charged by the government agency or other person carrying on the monopoly business activity’ (s. 26(g)).

In assessing the prices charged, the impacts we would consider would be likely to include both potential effects on third parties that might be addressed by adaptation spending, and the environmental effects of greenhouse gas emissions.

5.2.2 Socially desirable investment

The matters to be considered also include the ‘need for pricing practices not to discourage socially desirable investment or innovation by government agencies and persons carrying on non-government business activities’ (s. 26(j)).

Socially desirable investment could be expected to include prudent and efficient adaptation measures that reduce the potential for harm to the public.

5.2.3 Ecologically sustainable development

We are required to have regard to ‘legislation and government policies relating to ecologically sustainable development’ (s. 26(k)) as well.

Ecologically sustainable development would include measures to mitigate greenhouse gas emissions, either from investment in, or operation of, a water business’s facilities.

5.2.4 Other relevant material for water pricing

Our water pricing investigations are typically conducted under direction notices from the Minister responsible for the QCA Act. These may include particular matters specified by the Minister that we are required to consider during the investigation. In our 2021 statement on water pricing, we

³³ There are also provisions relating to water in Part 5A of the QCA Act that apply to privately owned water businesses. As the approval criteria (s. 170Z1) are similar to those in Part 3 (s. 26), we have not separately discussed them in this guideline.

said we would typically include environmental costs when assessing water prices under a Ministerial direction:

We will be guided, in any given pricing investigation, by the current legislative arrangements in Queensland and will consider relevant government policies. Where businesses incur costs in meeting their environmental obligations while providing water and wastewater services, we will typically consider these to be costs that should be recovered through prices, consistent with the principle of cost-reflective pricing.³⁴

Electricity

We do not currently assess spending proposals by businesses operating in the electricity industry. However, we may in future receive a direction to do so under Queensland's *Electricity Act 1994*. Should that happen, we would have regard to any guidance in the direction notice. However, to the extent that we were directed to assess climate-related spending proposals by an electricity business, we would apply a similar approach to that set out in this document for proposed transport and water spending, including some form of our scope, standard and cost approach. We would expect the business to submit proposals that met the standards set out in this guideline.

5.3 Weight

The matters listed in ss. 138(2), 120(1) and 26 of the QCA Act may give rise to competing considerations, which need to be weighed in deciding whether it is appropriate to approve proposed spending. For example, in respect of mitigation expenditure by a business declared for access under Part 5, potential tensions may include those between:

- the legitimate business interests of the owner/operator of the service (ss. 138(2)(b) and 120(1)(b)) in pursuing mitigation expenditure, given government and community expectations
- the interests of those that seek access to or have rights to the service (ss. 138(2)(e) and 120(1)(d)), who may consider that such expenditure is not necessary to enable access to the service
- the public interest (ss. 138(2)(d) and 120(1)(d)), where there are community-wide benefits in reducing emissions.

It is generally for us to determine the appropriate weight to be given to the various factors when considering a proposal for climate-related expenditure under ss. 138(2), 120(1) or 26.³⁵ Such an approach is not different to how other proposals are considered.

Chapters 2 to 5 contain information on the specific matters that we may have regard to in assessing and weighing the merits of any climate-related expenditure claim.

³⁴ QCA, *Statement of regulatory pricing principles for the water sector*, final statement, April 2021, p. 20.

³⁵ *Minister for Aboriginal Affairs v Peko-Wallsend Ltd* (1986) 162 CLR 24, 41 (Mason J).

GLOSSARY

AASB	Australian Accounting Standards Board
ACCU	Australian carbon credit units
BITRE	Bureau of Infrastructure and Transport Research Economics
DBCT	Dalrymple Bay Coal Terminal
DBI	Dalrymple Bay Infrastructure
ESG	environmental, social, governance
HRA	<i>Human Rights Act 2019 (Qld)</i>
QCA	Queensland Competition Authority
QCA Act	<i>Queensland Competition Authority Act 1997</i>

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