

Attachment 10: Capital Expenditure Sharing Scheme

Revenue Proposal

November 2024



Responsibilities

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1 Introduction

1.1 Background

The purpose of this paper is to examine whether the Capital Expenditure Sharing Scheme (**CESS**) should apply to MLPL in its standard form to the costs of constructing Marinus Link and, if not, the alternative form that should apply.

Under the CESS, a transmission network service provider (**TNSP**) receives a financial penalty or bonus depending on whether its actual capital expenditure during a regulatory year is higher or lower than the allowance determined by the AER. The default sharing arrangement means that the TNSP retains 30% of any underspend¹ or overspend, and 70% is passed back to customers through adjustments to network revenues.

The CESS arrangements were reviewed by the AER during 2022 and 2023, culminating in a final decision in April 2023. In that decision, the AER recognised that it is especially difficult to accurately forecast capital expenditure for large transmission projects, which may mean that the CESS should not be applied in its standard form. Specifically, the AER commented that:²

"...we may apply the CESS, not apply the CESS, or apply a CESS with a lower sharing factor than 30 per cent."

In deciding whether and how to apply the CESS to a large transmission project, the AER stated that it would consider the following matters, in addition to the TNSP's proposal:³

- the benefits to consumers of the project being exempt from, or subject to a variation of, the CESS;
- the size of the project;
- the degree of capital expenditure forecasting risk⁴; and
- stakeholder views.

⁴ Taking into account, for example, the extent to which a project is already outsourced and subject to contract terms.

¹ If the underspend exceeds 10% of the capital expenditure allowance, the sharing percentages retained by the TNSP reduces to 20% for the additional savings.

² AER, Capital Expenditure Incentive Guideline for Electricity Network Service Providers, April 2023, page 7.

³ AER, Review of incentives schemes for networks, Final decision, April 2023, page 22.



While the AER will consider these matters on a case by case basis, it also states that its default position is that the CESS will apply in its standard form and that it "will be careful in making exclusions".⁵ Since the publication of that guidance in April 2023, however, the AEMC made a final determination in relation to the application of ex post reviews to ISP projects, such as Marinus Link. In that determination, the AEMC made the following findings in relation to the linkages between the CESS and the ex post review process:⁶

"The final rule also includes additional transitional provisions to give the AER the flexibility to adjust a TNSP's future revenue allowance to offset the effect of any penalties incurred under the current CESS framework following an ex post review. The changes enable the AER to prevent TNSPs from being double penalised where an overspend is determined to be inefficient. Similarly, they enable the AER to offset a CESS penalty where an overspend is determined to be efficient. These adjustments can only be made where the AER updates its Guideline to provide for such adjustments and where a TNSP consents to such adjustments."

In effect, the AEMC's draft determination introduces the possibility that CESS penalties will not apply in future to actionable ISP project either because:

- the ex post review finds that the overspend is prudent and efficient, and therefore no penalty is warranted; or
- the ex post review finds that some portion of the overspend is not prudent and efficient, in which case that part of the overspend would be excluded from the regulatory asset base (RAB), and a further CESS penalty would not be appropriate.

While the AER will not finalise its approach to the future application of CESS penalties to actionable ISP projects until September 2025, the AEMC's rule determination on this issue is relevant to the issues being considered in this attachment. Specifically, the AEMC has highlighted the interplay between the ex post review and the CESS, which casts doubt as to whether CESS penalties should apply to actionable ISP projects such as Marinus Link. Specifically, the AEMC has raised the possibility that a zero CESS penalty regime may be appropriate for actionable ISP projects given the new arrangements for applying ex post reviews to these projects. MLPL notes that the AEMC's position is open to different interpretations, which we discuss later in this paper.

⁵ AER, Capital Expenditure Incentive Guideline for Electricity Network Service Providers, April 2023, page 7.

⁶ AEMC, National Electricity Amendment (Managing ISP project uncertainty through targeted ex post reviews) Rule 2024, August 2024, page iii.



1.2 Our approach

In terms of our assessment approach, it is important to start with the AER's current Capital Expenditure Incentive Guideline and the findings from the AER's review, as summarised in the previous section. To paraphrase, the AER's conclusion from that review is that the CESS should apply in its standard form, unless the specific circumstances relating to a large transmission project warrant a different approach.

Given this background, our approach is to consider the following factors identified by the AER in the following order:

- the size of the project;
- the degree of capital expenditure forecasting risk, including the extent to which a project is already outsourced and subject to contract terms;
- the benefits to consumers of the project being exempt from, or subject to a variation of, the CESS; and
- stakeholders views, noting that feedback on this will be obtained through our engagement with the Consumer Advisory Panel (**CAP**) as part of our consultation on the draft Revenue Proposal.

In considering the above factors, we place particular emphasis on the benefits to consumers. In taking a consumer perspective, we recognise that the purpose of incentive regulation is to deliver better outcomes for consumers over time by encouraging regulated companies to improve their performance in terms of cost and service performance.

Our focus on consumers is also consistent with the National Electricity Objective (**NEO**), which is to promote efficient investment for the long-term interests of consumers of electricity in relation to price, quality, safety, reliability and security of supply of energy. In broad terms, therefore, our task in this paper is to consider whether the application of the CESS in its standard form to Marinus Link would promote better outcomes for electricity consumers or not.

In preparing this report, we are also mindful of the AER's comment that it will be careful in making exclusions from the application of the CESS.⁷ We interpret this comment as indicating that the AER intends to take care in setting precedents, having regard to the particular characteristics of each project and the AER's default position that the CESS should apply in its standard form. Over time, we expect that the AER will want to develop a framework for determining the circumstances under which it should modify the application of the CESS. More broadly, as already noted, the AER may decide that CESS penalties should not apply to

AER, Capital Expenditure Incentive Guideline for Electricity Network Service Providers, April 2023, page 7.



actionable ISP projects when it updates its capital expenditure incentive guideline, in accordance with the AEMC's recent Rule determination.

In terms of precedents, we note that Transgrid proposed that the CESS should not apply to stage 2 of HumeLink, which is a proposed large transmission network upgrade that will connect Sydney load with the Snowy Mountains Hydroelectric Scheme and Project EnergyConnect in South-West NSW. To support Transgrid's proposal, HoustonKemp were commissioned to consider whether the CESS should apply to HumeLink. In preparing this paper, we have reviewed the HoustonKemp report and refer to its report where appropriate in this Attachment.

MLPL notes that the AER did not accept Transgrid's proposed CESS proposal in relation to HumeLink and instead concluded that:

- A 30% sharing ratio will apply to capex overspends and underspends up to 10% of the net present value of forecast capex.
- If an overspend or underspend exceeds 10%, the sharing ratio is set to the average level of the financing cost or benefit, which is 9.25% based on a WACC of 3.99%.
- The modified CESS will apply to all expenditure undertaken in Stage 1 and Stage 2 of HumeLink in the 2023–28 regulatory control period.
- Biodiversity offset costs will be excluded from the CESS.
- Any deferrals between regulatory periods will be included in the calculation of the CESS rewards or penalties.

As the AER will want to ensure that it adopts a consistent approach across different large transmission projects, in this paper we highlight similarities and differences between HumeLink and Marinus Link.

1.3 Key findings

Our key findings are set out below

- (1) MLPL agrees with the AER's position that project size and the degree of forecasting risk are the key considerations in deciding whether the CESS should apply to a particular transmission project. These criteria recognise that the CESS will not operate as intended if differences between actual and forecast capital expenditure are principally caused by factors unrelated to the TNSP's efficiency performance.
- (2) Marinus Link is a large transmission project when compared against historical capital expenditure. For example, the capital costs of stage 1 for Marinus Link is more than 50% of the combined annual capital expenditure for all transmission and distribution networks in the National Electricity Market for each of



the years from 2015 to 2022. Although Marinus Link is smaller than HumeLink in relation to project costs, it is still appropriate to regard Marinus Link as a large project.

- (3) In relation to forecasting risk, MLPL has conducted risk workshops which have identified significant sources of risk that cannot be mitigated through management controls, transfer to contractors or insurance. In relation to the effective operation of the CESS, the impact of the forecasting risk is further exacerbated by the absence of any other capital projects that would enable risks arising from Marinus Link to be diversified by MLPL compared to other TNSPs.
- (4) While the size of Marinus Link and the degree of forecasting risk are important factors in determining whether the CESS should apply, the benefits to consumers of applying or not applying the CESS is the most important consideration. Our illustrative example shows that consumers may be exposed to windfall losses in the region of \$112 million or 4% of the actual project costs if the CESS is applied. MLPL considers that the prospect of windfall losses for consumers undermines the case for applying the CESS.
- (5) For equity investors, the operation of the CESS imposes an effective penalty of 75% of any capital expenditure overspend amount, i.e. equity holders will lose 75% of any expenditure that exceeds the AER's allowance, even if this additional expenditure results from factors that are beyond the company's control. For actionable ISP projects, the potential magnitude of this capital loss exposes consumers to the risk that projects may not proceed as planned or management takes action to pass risk onto service providers even if the costs of doing so are comparatively high. For Marinus Link, the potential exposure for equity holders is even more significant because the concessional financing arrangements are expected to adopt a higher average level of gearing than the AER's benchmark.
- (6) The careful application of the AER's criteria has led MLPL to conclude that the CESS incentive rate should be reduced for Marinus Link. MLPL considers that a 5% penalty applied to any overspend is an appropriate incentive. In our view, this proposal provides a strong incentive to commit significant resources to effective contract management to drive costs lower, as far as practicable. A 5% incentive rate, combined with discipline of the ex post review, should provide confidence to customers that MLPL will be working hard on their behalf to deliver Marinus Link prudently and efficiently.
- (7) MLPL notes that its proposed incentive rate is lower than the AER's position in relation to HumeLink. Equally, however, MLPL is mindful that the AEMC has concluded that it may not be appropriate to apply any CESS penalty to actionable ISP projects, as any overspend will be subject to an ex post review. We therefore note the following additional points in support of our proposal:
 - The potential impact on MLPL's MAR would be comparable to other incentive schemes;
 - MLPL's CAP expressed mixed views on whether a CESS should apply or whether it was unnecessary to apply a further financial incentive beyond the ex post review;



- Our proposal is symmetrical, providing a bonus and penalty regime. We regard this approach as preferable to a bonus-only scheme, which is a reasonable inference from the AEMC's comments regarding the application of CESS penalties to actionable ISP projects that are subject to ex post reviews;
- While MLPL's scope for driving efficiency improvements may be limited, given the extent of outsourcing, the proposed financial incentive is likely to drive efficient performance in contract management and project governance;
- The potential for windfall gains or losses for customers and MLPL as a result of forecasting errors is ameliorated by a lower powered incentive scheme; and
- MLPL will face a very significant incentive to manage expenditure prudently and efficiently, given the risk of an adverse ex post review in the event of a cost overrun.



2 Size of the project

2.1 Why is it relevant to the application of the CESS?

The AER has stated that it will consider the size of a project in assessing whether the CESS should apply in its standard form. Before discussing the size of Marinus Link, we first discuss why we consider project size to be relevant to the application of the CESS.

The CESS adopts a simplistic approach to identifying and rewarding a TNSP's cost performance in relation to capital expenditure, by defining an efficiency saving or loss as the difference between:

- The annual capital expenditure allowance provided by the AER in its revenue determination; and
- The TNSP's actual annual capital expenditure.

As explained in section 1.1, the CESS creates an incentive on a TNSP to minimise its actual capital expenditure by allowing it to retain 30% of any saving. By the same token, the TNSP faces a penalty of 30% of any overspend. The application of the CESS is mechanistic in the sense that the AER does not attempt to determine the causes of any cost saving or overrun. Instead, an implicit assumption is made in applying the CESS that any difference between the actual and allowed amounts can be attributed to efficiency or inefficiency on behalf of the TNSP.

The simplistic design of the CESS recognises that it would be very difficult to isolate the cost savings or overspends that can be directly attributable to management, and those that are outside management's control. While simplistic, the design of the CESS can be expected to reward and penalise management performance providing that there is a portfolio effect across the TNSP's capital expenditure projects and programs of work which means that:

- The cost impacts (positive and negative) of factors beyond outside management's control tend to even out across projects and over time; and
- The AER's total capital expenditure allowance is likely to reasonably reflect the efficient costs of delivering the network's capital expenditure plans.

For a large project, each of these pre-requisites is less to be satisfied for the following reasons:

 Large projects face asymmetric risks in relation to unexpected cost overspends as opposed to cost savings. This asymmetric risk is inherent in large projects and, therefore, arises whether or not management is efficient. As such, upside and downside risk may not even out over time, particularly if the cost of a large project is a substantial proportion of the TNSP's capital expenditure program.



In contrast to routine projects, the task of accurately forecasting large projects is more challenging. It
may be the case that the AER's capital expenditure allowance turns out to overstate or understate the
efficient costs of delivering the project.

For these reasons, the effectiveness of the CESS in appropriately rewarding or penalising may be substantially reduced for large projects.

2.2 Is Marinus Link a large project?

TasNetworks and MLPL provided AEMO with a total project cost estimate for Project Marinus for the purposes of AEMO's draft 2024 ISP, as follows:

- A total cost of Project Marinus of \$6,575 million (±30%), comprising \$3,840 million (±30%) for the first stage, and \$2,735 million (±30%) for the second stage.
- The Marinus Link component of these costs are \$2,890 million (±30%) for the first stage, which includes preparatory works for the second stage, and \$2,210 million (±30%) for stage 2.
- The North West Transmission Developments (**NWTD**) component of these costs is \$950 million (+30%, -15%) for the first stage, and \$525 million (+30%, -15%) for the second stage.

Although MLPL is continuing to refine its estimate of the first stage of Marinus Link, the costs of delivering the project are in the region of \$3 billion. To put the size of Marinus Link into context, the total estimated project costs are more than 50% of the combined annual capital expenditure for all transmission and distribution networks in the National Electricity Market from 2015 to 2022, as shown in the figure below.

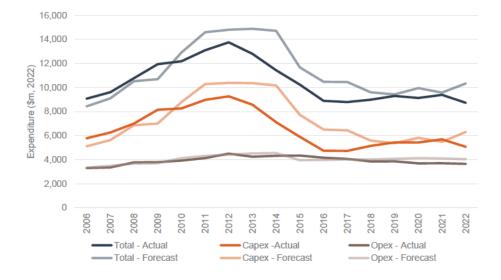


Figure 1: Actual and forecast expenditure for all transmission and distribution networks

Source: AER, Electricity network performance report, July 2023.



In the context of historical capital expenditure across the NEM, therefore, there is no doubt that the first stage of Marinus Link is a very significant project. Looking forward, however, it is also important to consider other major transmission projects that are planned, so that we have a comprehensive picture of Marinus Link's size relative to other large transmission projects.

As already noted, HumeLink is a major transmission project that is being undertaken by Transgrid. Transgrid has estimated that HumeLink has an expected capital cost of approximately \$4.6 billion (in 2023 dollar terms), excluding the costs of early works expenditure. As such, the cost of constructing HumeLink are higher than the first stage of Marinus Link.

In discussing the size of HumeLink, HoustonKemp makes the following observations:

- The average annual capital expenditure on HumeLink is approximately 4.3 times larger than the average TNSP's total capital expenditure allowance over the period 2015 to 2022⁸; and
- A 5 per cent over/underspend on HumeLink, is equivalent to a 23 per cent over/underspend in Transgrid's non-ISP capital expenditure over the 2023-28 regulatory period.

Evidently, HumeLink's capital expenditure is very large compared to historical capital expenditure allowances and Transgrid's non-ISP capital expenditure. In relation to project size, a key question is whether Marinus Link's lower capital expenditure for stage 1 justifies a different approach in relation to the application of the CESS compared to HumeLink⁹. In our view, the answer to this question is 'no', for the following reasons:

- Both Marinus Link and HumeLink are very large projects compared with historical capital expenditure.
- In contrast to Transgrid, MLPL does not have any non-ISP capital expenditure. As such, a cost overrun in relation to Marinus Link cannot be mitigated by reductions in MLPL's non-ISP capital expenditure.
- Project size is only a proxy for project risk. In Marinus Link's case, the construction of a HVDC interconnector which includes 255 kilometres of undersea cables across Bass Strait brings with it particular risks that are not be captured by comparing total project costs.

Based on the above observations, it is reasonable to conclude that Marinus Link is a large transmission project. Furthermore, in considering the implications of Marinus Link's size for the application of the CESS, we note that:

• Marinus Link is the only transmission project that MLPL is undertaking, which means that MLPL and its customers face a unique set of circumstances in relation to the CESS. In contrast to other TNSPs,

⁸ HoustonKemp, Capital expenditure incentives applying to HumeLink, 12 February 2024, page 7.

⁹ At the time of writing, Transgrid has proposed that the CESS should not apply to HumeLink, but the AER has not yet made a decision on whether it should apply.



there is no opportunity for the operation of the CESS to even out across projects through a portfolio effect.

• As the first submarine HVDC interconnector to be constructed in Australia in more than 20 years, it is inherently more challenging to accurately estimate the efficient costs of delivering the project and to establish an effective incentive mechanism on the basis of that forecast.

In summary, our view is that the size and nature of Marinus Link raises significant doubts as to whether the standard application of the CESS will be effective. We will discuss this issue in further detail later in this paper.



3 Degree of forecasting risk

3.1 Why is it relevant to the application of the CESS?

As explained in section 2.1, the payment of bonuses or penalties under the CESS depends on a comparison between the AER's capital expenditure allowance and the network company's actual costs. We explained in section 2.1, that the effective operation of the CESS depends on a portfolio effect across the network's capital expenditure projects and programs of work which means that:

- The cost impact (positive and negative) of factors beyond outside management's control tend to even out across projects and over time; and
- The AER's total capital expenditure allowance is likely to reasonably reflect the efficient costs of delivering the network's capital expenditure plans.

We explained that a large project will tend to undermine the portfolio effect and, therefore, the effective operation of the CESS. For MLPL, as Marinus Link is the only project that is being undertaken, it finds itself in unique circumstances where there is no portfolio effect.

While the size of the project is relevant to the effective operation of the CESS, the degree of forecasting risk is similarly relevant. Specifically, if a project is subject to a high degree of risk, then the actual costs may be affected by factors beyond management's control, and it will be more challenging for the AER and stakeholders to be confident that a cost allowance reflects the efficient costs of delivering the project.

The difficulty in applying the CESS to a large project with a high degree of forecasting risk is that:

- The network company could receive a penalty even if it performs well in managing the project costs; or
- The network company could receive a bonus even if it performs poorly in managing the project costs.

In each of these cases, consumers are on the opposite side of a windfall penalty or bonus that the network company may obtain. We refer to the penalty or bonuses as a 'windfall' because it does not reflect the network company's performance.

In theory, it could be argued that the possibility of windfall bonuses or penalties does not undermine the incentive properties of the CESS. This is because a network company will always be better off by improving its cost performance, whether or not the CESS results in a windfall bonus or penalty. On this theoretical view, the CESS continues to provide an incentive to improve performance even if the resulting payment of a bonus or penalty may not reflect the network's cost performance.



While we accept the theoretical position described above, we prefer to give weight to the common sense perspective that the CESS payments (i.e., bonus or penalty) should reflect the network's efficiency performance in order for the CESS to be considered effective. Specifically, bonus and penalty payments that fail to reasonably reflect the network's performance will undermine the achievement of the NEO, contrary to interests of consumers, for the following reasons:

- The risk of a financial penalty that is unavoidable and beyond the network's control will undermine the commercial incentives to invest in major transmission projects. Such an outcome would be contrary to the NEO, which is to promote efficient investment for the long term interests of consumers.
- The prospect of a network obtaining a windfall gain (and consumers paying higher prices than necessary) will tend to undermine the credibility of the regulatory framework. Such an outcome would also mean that prices are higher than the efficient costs of providing network services, which would also be contrary to the NEO.

In addition to considering the degree of forecasting risk, it may also be important to consider whether the risk is asymmetric. The nature of large, complex infrastructure projects means that actual costs are more likely to be impacted adversely, possibly as a result of unforeseeable events. This means that network companies face more downside risk than upside in terms of project cost outcomes.

The impact of asymmetric risk will be reduced for those companies that are able to combine major infrastructure projects with smaller ones, including routine asset replacements, which are less exposed to downside risk. However, for large transmission projects that cannot benefit from the portfolio effect, asymmetric risk will be a significant issue that will undermine the appropriateness of applying the CESS in its standard form.

3.2 Does Marinus Link have a high degree of forecasting risk?

3.2.1 MLPL's approach to risk assessment

As already noted, Marinus Link is the first submarine HVDC interconnector to be built in Australia for more than 20 years. The scale and complexity of the Marinus Link project unavoidably results in significant project risks that must be managed by MLPL and its competitively sourced contractors that will be responsible for project construction and commissioning.¹⁰

¹⁰ MLPL's service providers have been or will be selected through competitive tender processes.



MLPL has conducted extensive risk workshops to identify and manage the project risks, including passing risks to third parties through contractual arrangements or insurance where it is efficient and prudent to do so. With the assistance of subject matter experts, workshop outputs have been recorded in a risk register, which captures each of the risks and the proposed risk mitigation measures.

In conducting these workshops, MLPL has taken account of the AER's guidance which explains that a risk allowance should be included in the capital expenditure allowance for residual project risks, which are risks that cannot be efficiently transferred, avoided or mitigated (or treated as a pass through event). The AER has also helpfully provided some examples of possible residual risks:¹¹

- risks that are related to realistic latent condition with the site, e.g. encountering rock on the site, which are unknown and so cannot be regarded as reasonably expected costs;
- risks associated with actions or requirements of a third party (such as a council) that cannot be reasonably addressed through contractual terms with the service provider; and
- risks associated with events that are outside a TNSP's control, such as extended wet weather or changes in market conditions.

At the time of preparing this attachment, MLPL has conducted a series of risk workshops in accordance with the AER's guidance to identify residual risks, which were grouped into the following categories:

- Site Conditions;
- Delays and approvals;
- Social license; and
- Other risks.

While MLPL subsequently refined its assessment of residual risks, for the purpose of this paper it is helpful to describe the following provisional list of risks to explain the relevance of this issue to the CESS. The provision list of residual risks is set out in the table below, along with a brief description and explanation.

¹¹ AER, Guidance Note, Regulation of actionable ISP projects, March 2021, page 17.



Table 1: Provisional list of residual risks for Marinus Link

Residual risk	Description and explanation				
Site conditions					
Native vegetation offsets	MLPL is required to offset the environmental impact of the project by purchasing offset credits. The number of credits required is assessed by the relevant regulator and may be higher or lower than those assumed in the base estimate. In addition, there is a risk of a shortage in availability of native vegetation offsets, resulting in delays and additional costs to achieve compliance.				
Geotechnical conditions at onshore site	There is a risk that MLPL will incur additional costs if onshore geotechnical conditions are less favourable than expected.				
Seabed conditions at offshore site - target depth	Unexpected seabed conditions may require the contractor to undertake further remediations (beyond those assumed in the contract terms) to achieve target cable depth, which would impose additional costs on MLPL.				
Onshore site contamination – converter site	There is a risk of contamination at converter sites, which requires additional mediation with cost consequences including possible project delays.				
Offshore site contamination	The undersea component of the project spans approximately 255 kilometres and therefore cannot be surveyed in its entirety. As a consequence, there is a risk that contractors may encounter unexpected contamination, leading to possible rerouting of the cable with additional expense and delays.				
Artefacts at onshore site	MLPL bears the risk of encountering artefacts at the onshore construction site which, at the execution date, the contractor was not aware of, and which could not reasonably have been anticipated by an experienced, skilled contractor.				
Onshore site contamination – cables	The 90km of onshore cabling has an unavoidable risk of unexpected contamination. Simila to other contamination risks, it is not possible to accurately estimate the residual risks because of the inherent uncertainty in the construction task.				
Delays/approvals					
Delay in land acquisitions	Land and easement acquisition may not be finalised in time for contractors. This could cause delays to the project schedule and lead to additional costs				
Changes to undersea route to meet approval conditions	Rerouting may be required to meet approval conditions imposed by the relevant regulators.				



Need to reapply for approvals	MLPL may be required to deviate from the approved route, which may require MLPL to reapply for approvals, leading to delays and additional costs.				
Delay in connection to networks of TasNetworks and AusNet	The completion of the Marinus Link project depends on the completion of the North West Transmission Developments Project. There is a risk that delays in the completion of the North West Transmission Developments Project leads to delays and additional costs for the Marinus Link project.				
Social license					
Protests against compulsory acquisition	Recent experience with other projects highlight the risk that protests may hinder the ability of contractors to complete the project on time, leading to additional costs and delays.				
Cultural heritage at offshore site	The presence of offshore heritage sites, such as skeletal remains or submerged burial sites, may require MLPL to alter the cable route or delay construction.				
Native title and cultural heritage	MLPL will bear the cost if a native title claim is made over any part of the site. The costs and the likelihood of occurrence are inherently uncertain, as is any cost allowance for this residual risk in the capital expenditure forecast.				
Other risks					
Exceedance of bad weather allowance	The contract terms with construction service providers will assume a maximum number of days to cover bad weather allowance in its base estimate. MLPL will face additional costs if actual number of bad weather days exceed this allowance.				
Force majeure event preventing access to sites	Force majeure events that prevent access to sites will inevitably have a cost to MLPL, as a result of project delays and consequential impacts on contractors.				

In our view, the nature of the residual risks described in the above table assists in illustrating why the efficient costs of delivering Marinus Link are inherently uncertain. We describe the costs as 'inherently uncertain'¹² because the uncertainty arises principally from the complex nature of the project, which includes the construction of a 255 km submarine cable under Bass Strait.

Evidently, the application of the CESS to MLPL cannot do anything to eliminate or manage this uncertainty. It will, however, expose MLPL (and consumers) to bonus and penalty payments depending on whether the AER's risk allowance that is incorporated in the capital expenditure allowance turns out to be too high or too low. Similarly, the CESS will also expose MLPL and consumers to windfall gains or losses from any misspecification

¹² The distinction is between risk and uncertainty. Risks are events that have probabilities of occurrence that are predictable, and outcomes that can be estimated with some confidence. Uncertainties are events where the probability of occurrence are difficult to estimate.



in the scope of Marinus Link. The nature of complex projects is that the scope cannot be specified precisely, and this is a further source of uncertainty in addition to the factors listed in Table 1.

3.2.2 How does Marinus Link forecasting risk compare with HumeLink's?

As already noted, the AER's guideline explains that it will consider the degree of forecasting risk in determining whether the CESS should apply to a large transmission project, such as Marinus Link. Implicitly, therefore, the task is to consider how forecasting risk for Marinus Link compares with other large transmission projects.

HoustonKemp's report in relation to HumeLink has commented on the forecasting risk arising in relation to that project. HoustonKemp discusses four categories of risk:¹³

- a relatively high degree of uncertainties on the scope of the HumeLink Project, where a significant proportion of the scope, and so cost, of the project has not been determined;
- the surge in construction projects associated with the energy transition;
- an environment of increasing construction costs; and
- increasing international material costs.

In relation to the latter three categories, these are factors that are likely to affect all large transmission projects, and their impact will probably be proportionate to the size of the project (which we discussed in section 2). In relation to the first category, which is scope risk, HoustonKemp's discussion includes the following matters¹⁴:

- variation risk costs relating to changes in the scope of the project that may emerge during the delivery
 phase, such as contractor claims for additional payments from delays due to inclement weather;
 increases in costs associated with unanticipated geotechnical conditions of tower footings; and scope
 variations due to changes of design; and
- time risk costs relating to events such as, delays in receiving planning approvals and being unable to access the site.

We note that it is difficult to assess how Marinus Link and HumeLink compare in relation to the degree of forecasting risk, other than to note that:

¹³ HoustonKemp, Capital expenditure incentives applying to Humelink, 12 February 2024, page 9.

¹⁴ HoustonKemp also discusses labour productivity, uncertainty in materials and plant costs, and risks relation to tower design – see page 9 of their report.



- many of the factors listed by HoustonKemp also apply to Marinus Link; and
- both projects have a similar route length¹⁵ which may be a proxy for forecasting risk, although an HVDC submarine cable may be exposed to more risks and unknown factors compared to a large double circuit transmission project with similar route length that is above ground.

The most likely assessment is that both projects are subject to a high degree of forecasting risk, particularly when compared to the application of the CESS to other capital expenditure plans. In particular, it is worth recalling that the CESS is applied to transmission and distribution networks. For distribution networks, where the CESS applies in its standard form, the degree of forecasting risk is likely to be extremely moderate when compared to the risks associated with HumeLink and Marinus Link.

In one material respect, MLPL finds itself in a different position to Transgrid in relation to the application of the CESS. In particular, HoustonKemp makes the following observations regarding HumeLink's risks and those associated with Transgrid's non-ISP or business as usual projects:¹⁶

"...the characteristics of the Humelink project is significantly greater than Transgrid's total non-ISP capex for the 2023-28 regulatory period. Further, the Humelink project has significantly higher forecasting risk than Transgrid's business as usual capex. Consequently, the application of the CESS unaltered to the Humelink project means that if these risks result in higher than expected costs it can have a material impact on Transgrid's total profitability and financeability."

In contrast to other TNSPs, including Transgrid, MLPL is not undertaking any regulated transmission investments other than Marinus Link. It is not possible, therefore, for MLPL to manage the potential impact of applying the CESS to Marinus Link by making cost savings in relation to other transmission projects. This issue sets MLPL apart from other TNSPs and increases the financial risks to MLPL of applying the CESS to Marinus Link.

¹⁵ HumeLink comprises 360km of double circuit 500kV transmission lines, while Marinus Link comprises 255km submarine cable and 90km underground cable in Victoria.

¹⁶ HoustonKemp, Capital expenditure incentives applying to Humelink, 12 February 2024, page 14.



4 Benefits to consumers if the CESS were not applied in its standard form

The third factor that the AER will consider in deciding whether to apply the CESS in its standard form is how consumers would benefit from that decision. In our view, this consideration is the most important because it recognises that:

- The purpose of incentive schemes in economic regulation is to benefit consumers; and
- The NEO requires regulatory decisions to be made that are in the long term interests of consumers.

From the earlier discussion on the size of the project and the degree of forecasting risk, it should be evident that these factors are highly relevant to whether consumers will benefit from the application of the CESS, or whether their interests would be better promoted by not applying the CESS in its standard form. The key points are that:

- The simple design of the CESS means that any difference between the AER's capital expenditure allowance and the actual capital expenditure is assumed to be attributable to the efficient performance of the TNSP; and
- In the case of Marinus Link, however, it is likely that the majority of any difference (positive or negative) will be caused by the outcome of uncertain events that are beyond MLPL's control, rather than MLPL's efficiency performance. The reasons for this likely outcome are:
 - The size of the Marinus Link, which introduces uncertainty that is unavoidable in large, complex infrastructure projects;
 - The degree of forecasting risk for Marinus Link, which is driven partly by the size of the project and partly by the challenges associated with constructing a 255 km submarine cable; and
 - The absence of any portfolio effect for MLPL, which would otherwise provide an opportunity to balance the uncertainties and risks associated with Marinus Link across other capital expenditure projects.

As explained in the preceding sections, the consequence of applying the CESS in these circumstances is that bonus and penalty payments will be driven principally by forecasting risk, rather than efficiency performance. From the perspective of consumers, the question is whether the standard application of a CESS in these circumstances will continue to provide benefits or not.



To address this question, the remainder of this chapter considers the following matters:

- Incentives for timely and efficient investment;
- Potential windfall gains or losses for consumers; and
- Consumer safeguards if the CESS did not apply in its standard form.

We address each of these points in turn.

4.1 Incentives for timely and efficient investment

Consumers benefit if investors face incentives that promote timely and efficient investment. This point is illustrated in AEMO's ISP, which explains how actionable ISP projects will deliver substantial net market benefits. In the absence of incentives for investors to deliver these urgently needed projects, consumers will be worse off. Therefore, while it may seem counter-intuitive to focus on investor outcomes in considering consumer benefits, there is a strong connection between the two as illustrated in the NEO, which is:

"to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to:

- price, quality, safety, reliability and security of supply of electricity; and
- the reliability, safety and security of the national electricity system; and
- the achievement of targets set by a participating jurisdiction— for reducing Australia's greenhouse gas emissions; or that are likely to contribute to reducing Australia's greenhouse gas emissions."

HoustonKemp's report in relation to HumeLink has highlighted the potential impact on equity holders in applying the CESS. HoustonKemp makes the point that while the CESS applies a penalty of 30 per cent in relation to any overspend, the impact on equity owners is magnified because the overspend costs would be borne entirely by them. As providers of debt finance are always paid in full, the equity owners would lose 75.0% of their contributed equity in relation to any overspend amount.¹⁷ This calculation reflects the assumed benchmark gearing of 60%, which means that 30% of the overspend will be met by the 40% equity holders, producing an incentive rate of 75%.¹⁸ In other words, equity holders will lose 75% of every dollar of overspend

¹⁷ HoustonKemp, Capital expenditure incentives applying to Humelink, 12 February 2024, page 14.

¹⁸ For example, a \$100m overspend will produce a \$30m penalty. The providers of equity, which have contributed \$40m to the overspend will lose \$30m which is 75% of their equity.



incurred by the network company, i.e. the penalty is <u>not</u> a lower rate of return for every dollar invested above the forecast allowance, it is a 75% loss of the amount invested.

For Marinus Link the potential impact on equity holders is greater than 75% because the concessional financing arrangements are expected to adopt a higher average level of gearing than the benchmark 60%. By way of illustration, gearing of say, 80%, implies that equity holders will lose more than 100% of their contribution to the overspend amount.¹⁹ While this level of exposure is driven by the concessional financing arrangements, it is nevertheless an issue for equity holders and a matter that should be considered in determining the CESS incentive rate. Specifically, it would be difficult to justify a penalty for equity holders of this magnitude given the revenue and pricing principles in the National Electricity Law, which requires that incentives promote efficient investment in transmission systems.²⁰

More generally, we note that equity holders may be willing to face a higher powered incentive rate if they have confidence that the downside risk can be addressed through efficient project management. However, if a high degree of forecasting risk means that equity holders are exposed to the risk of capital loss despite efficient management performance, investors may be reluctant to risk their equity.

The potential exposure for investors may impact on consumers in one of two ways:

- Projects with a high degree of forecasting risk may not proceed, despite an expectation the project will provide a net economic benefit; or
- The network service provider takes action to secure fixed prices, even if the costs of doing so appear to be high on an actuarial basis.

We would regard the first outcome as a regulatory failure, akin to a market failure, because an efficient project may not proceed if equity holders are exposed to an unacceptable risk of capital loss. The second outcome would also be inefficient, as consumers are likely to prefer to pay the unhedged outturn costs of the project rather than a fixed price that exceeds the actuarial costs.

It follows from the above observations that a lower powered version of the CESS may be warranted where:

- There is a significant risk of forecasting error, which may undermine incentives for equity holders to commit funds to the project; and
- The network service provider is unable to manage the risks of project cost overruns by diversifying risk across a portfolio of projects.

¹⁹ Using the same example, a \$100m overspend will produce a \$30m penalty and equity holders would have contributed \$20m to the overspend amount. This means that equity holders will lose more than 100% of their equity contribution to the overspend amount.

²⁰ National Electricity Law, section 7A(3)(a).



MLPL's position is that both of these conditions are met in relation to Marinus Link, and to a greater extent than for HumeLink. As already noted, MLPL finds itself in a unique position where there is no prospect of diversifying the risk of project overruns because Marinus Link is the only project that MLPL is undertaking. Furthermore, the concessional financing arrangements increases the risk to equity holders.

4.2 Potential windfall gains and losses for consumers

In this section, we provide a high level quantification of the windfall gains and losses that consumers may obtain as a result of applying the CESS in its standard form to a project such as Marinus Link, where there is significant forecast risk. To examine the outcomes under the CESS, we provide four cases that involve a \$3bn project where the TNSP's efficiency performance is likely to be outweighed by a high degree of forecasting risk. For illustrative purposes, we assume that:

- Cost efficiency performance varies between +/- 2.5%, where +2.5% is defined as a cost saving due to management's efficiency performance (and 2.5% is defined as a cost increase); and
- Forecasting risk is +/- 12.5%.

The four cases are defined as follows:

Illustrative examples	Efficiency performance	Forecasting risk outcome	
Case 1 Good		Favourable	
Case 2	Good	Unfavourable	
Case 3	Poor	Favourable	
Case 4	Poor	Unfavourable	

Table 2: Illustrative examples showing different efficiency performances and risk outcomes

Table 3: Illustrative consumer windfall gains and losses if the standard CESS applies

	Case 1	Case 2	Case 3	Case 4
Forecast expenditure	\$3,000m	\$3,000m	\$3,000m	\$3,000m
Level of efficiency or	+2.5%	+2.5%	(-2.5%)	(-2.5%)
(inefficiency)	+\$75m	+\$75m	-\$75m	-\$75m
Forecast expenditure benefit or (detriment)	+12.5%	(-12.5%)	+12.5%	<mark>(-12.5%)</mark>
	+\$375m	-\$375m	+\$375m	-\$375m



Net expenditure result: underspend or (overspend)	+15% +\$450m underspend	(-10%) -\$300m overspend	10% +\$300m underspend	(-15%) +\$450m overspend
Actual expenditure	\$2,550m	\$3,300m	\$2,700m	\$3,450m
TNSP CESS share: bonus or (penalty)	+\$120m ²¹	(-\$90m)	+\$90m	(-\$135m) ²²
Consumers pay ²³	\$2,670m	\$3,210m	\$2,790m	\$3,315m
Consumers should have paid ²⁴	\$2,572m	\$3,322m	\$2,678m	\$3,428m
Windfall gain (loss) for consumers ²⁵	(-\$98m)	\$112m	(-\$112m)	\$112m

The windfall gains and losses arise for consumers because the CESS operates on both the efficiency performance and the actual outcome from forecasting risk that may affect actual costs either positively or negatively. The data presented is purely for illustrative purposes but reflects the kind of outcomes that may eventuate in relation to Marinus Link. For simplicity, we have ignored the operation of the ex post prudency review, which may potentially impose a further penalty on MLPL in case 4. We will return to the role of the ex post prudency review shortly.

The conclusion from the above analysis is that the standard operation of the CESS exposes consumers to potential windfall gains or losses of up to \$112m, depending on the outcome of the forecasting risk. In this example, the magnitude of the windfall loss for consumers is in the region of 4% of the actual project costs.

The question is whether the potential for windfall losses (or gains) of this magnitude is acceptable, or whether it leads to the conclusion that the CESS should not apply in its standard form. In addressing this question, it is important to consider whether there are sufficient consumer safeguards that would ensure the efficient delivery of Marinus Link if the CESS did not apply in its standard form. We address this question next.

²¹ This incentive payment is less than the equivalent cost overspend (case 4) because the CESS applies a 20% bonus to underspends that exceed 10% of the project costs.

²² For simplicity, we have ignored the application of the ex post prudency review.

²³ Customers pay the actual costs plus the CESS bonus or penalty.

²⁴ Ideally, the CESS bonus or penalty should reflect only the efficiency performance x 30%, i.e., +/- \$75m x 30% = +/-\$22m

²⁵ The windfall gain (or loss) is the difference between what customers pay and what they should have paid.



4.3 Consumer safeguards if the CESS did not apply in its standard form

If the incentive rate applied in the CESS were reduced, consumers would need to be confident that there are sufficient protections in place to ensure that Marinus Link will be delivered efficiently. In the absence of these protections, consumers may well prefer to apply a higher powered CESS that imposes a discipline on efficient management, even though it also has the potential to produce windfall losses. In our view, there are three principal safeguards that should provide comfort to consumers that Marinus Link will be delivered efficiently in if the CESS applied at a lower rate:

- Incentive arrangements with service providers;
- Project governance arrangements; and
- Ex post prudency review.

We discuss each of these points in turn.

4.3.1 Incentive arrangements with service providers

As explained in this Revenue Proposal, MLPL has developed a procurement strategy which has been designed to deliver the best outcome for consumers in terms of price and service outcomes. In conducting competitive tender processes for each package of work, MLPL has been actively involved in negotiating contract terms that allocate risk appropriately between MLPL and prospective contractors. In addition, MLPL is proposing to include 'pain share/gain share' incentives for the Balance of Works contract, which will also be subject to a competitive tender process that is expected to conclude in April 2025.

In effect, the outcome from the competitive market process will be a series of terms and conditions for each package of work that either provide contractual conditions or incentives on contractors to deliver the project as efficiently as possible. For forecasting risk that cannot be managed, the contractual terms provide for MLPL to bear these costs subject to appropriate approval and verification processes in accordance with the contract. In contrast to the CESS, which applies a 30% bonus or penalty to any cost difference, incentive arrangements with the Balance of Works contractor will be negotiated, having regard to the particular risk characteristics of the work package, including the degree of forecasting risk.

In contrast to the standard form CESS, therefore, the contractual terms and the incentive arrangements will be tailored to reflect Marinus Link's particular risk characteristics. As such, if the CESS did not apply in its standard form, customers would still benefit from the contractual terms and conditions and incentive arrangement that have been negotiated with service providers.



4.3.2 Project governance arrangements

A major infrastructure project, such as Marinus Link, must have effective program and project management if the project is to meet its objectives prudently and efficiently. During the early works phase of the project, program and project management focused on:

- Establishment of governance structure and appropriate forums with clear decision rights approved;
- Development and management of the project plan which forms the basis of:
 - the scope of works for the project;
 - the decision gates and key milestones;
 - the design and build of the schedule and cost estimates; and
 - identification and monitoring of key risks, assumptions and constraints;
- Design and implementation of the core project controls and commercial processes and systems to provide the 'backbone' of the project to inform timely, accurate and efficient decision-making;
- Introduction and management of the HSE management system to provide occupational health, employee safety, and environmental management to prevent or mitigate accidents, incidents and meet MLPL's legal obligations; and
- Development and management of the project schedule and cost baseline to inform overall progress and performance to identify specific areas to focus on and provide assurance that key risks are proactively managed.

Our program and project management approach is supported by Board and stakeholder governance arrangements, which will actively monitor cost performance throughout the construction phase of the project. MLPL considers that these arrangements provide additional safeguards to consumers that the project will be managed prudently and efficiently, whether or not the CESS applies in its standard form.

4.3.3 Ex post prudency review

In circumstances where MLPL's total capital expenditure during a regulatory period exceeds the allowance²⁶, the AER would conduct an ex post prudency review in accordance with S6A.2.2A of the Rules. The purpose

²⁶ To be precise, clause S6A.2.2A(a1) defines the review period as the previous regulatory period excluding the last two years, plus the final two years of the regulatory control period preceding the previous control period.



of that review is to determine whether any overspend is prudent and efficient. If the AER concludes that it is not prudent and efficient, the amount may be excluded from the regulatory asset base. In effect, therefore, shareholders would be exposed to a 100% loss if the AER determines that any overspend amount is found not to be prudent and efficient.

For MLPL, any overspend in relation to Marinus Link will be immediately trigger an ex post review in accordance with the AEMC's recent Rule change which applies ex post reviews to each actionable ISP project. It follows that the incentive power of the ex post prudency review for actionable ISP projects, such as Marinus Link is substantially greater than experienced by other network companies historically, which have generally been able to avoid ex post reviews by making offsetting savings in other capital expenditure projects.

In our view, the operation of an ex post review provides a very strong safeguard for consumers that:

- MLPL will be exposed to strong incentives to deliver the Marinus Link efficiently, even if the CESS does not apply in its standard form; and
- If MLPL incurs capital expenditure that fails the prudency and efficiency test applied by the AER, these costs will be met by shareholders rather than consumers.

For the reasons set out in this paper, MLPL's view is that the CESS should not apply to Marinus Link in its standard form.

5 Feedback from the Consumer Advisory Panel

MLPL shared a draft version of this paper with the CAP and discussed the key issues in a workshop on 23 April 2024. Each CAP member in attendance were asked to express their level of support for the proposal, based on the draft paper, and then asked to reconsider their position following the workshop discussion. MLPL asked the CAP to consider the following options:

- A. **Default scheme**: 30% bonus/penalty rate
- B. Pre-CESS sharing arrangement: Approx. 9% bonus/penalty rate²⁷
- C. No bonus or penalty: Set the CESS bonus rate to zero

²⁷ The magnitude of the incentive rate depends on the timing of the overspend or underspend. The average rate is approximately 9%, but the rate would be lower if the overspend occurs at the end of the period, which is likely if there is a project delay. In our discussions with the CAP, MLPL indicated that it could be as low as 6%.



D. Modified CESS: Bonus/penalty between 0% and 30%

To summarise, the CAP did not have a unanimous position on whether the CESS should be modified or, if so, the preferred option. One member indicated that the default scheme should apply, as it provided a level of insurance for consumers in relation to cost overruns. One member indicated that it should not apply as there are sufficient safeguards in place to protect consumers, and the application of the CESS would not affect MLPL's efficiency performance. Other members were undecided, with some members indicating that it was not possible to reach a firm view one way or another, and other members accepting that a change should be made but uncertain regarding the extent.

Based on the feedback from the CAP and the analysis presented in this paper, MLPL considers that it is reasonable to propose a different incentive rate to the default rate of 30%. We address the question of the appropriate incentive rate in the next section.

6 Proposed incentive rate

As already noted, MLPL's view is that its particular circumstances warrant a lower incentive rate for the CESS than the default rate of 30%. In considering how an appropriate incentive rate might be determined, MLPL has estimated the potential impact of the CESS on MLPL's maximum allowed revenue (**MAR**) in the 2030-2035 regulatory period, i.e., when the CESS bonus or penalty for the construction period is paid out.

On the assumption that the difference between the actual and allowed capital expenditure may be up to +/-15% of the total capital expenditure, employing a 5% incentive rate implies a maximum indicative bonus or penalty of +/- \$28.5 million, which approximately \$5.7 million per annum or approximately 3% of MLPL's indicative concessional MAR. This potential exposure is aligned with other incentive schemes, such as the Service Target Performance Incentive Scheme.²⁸

MLPL recognises that a 5% incentive rate is less than the average financing costs (or benefits) that would arise in the absence of a CESS scheme. In its decision for HumeLink, the AER adopted an incentive rate of 9.25%, which is the average financing costs, for any cost difference above 10%. MLPL's notes that the CESS is sufficiently flexible to allow any incentive rate to apply – from 0% to the default rate of 30% - and there is no reason to regard the incentive rate as having a floor of 9.25%. Instead, MLPL's position is that the incentive rate should be set having regard to the factors set out in the AER's incentive guideline.

MLPL also notes that the AEMC has recently made a Rule determination which examined the linkages between the ex post review and the application of CESS penalties to actionable ISP projects, such as Marinus Link. While this matter is to be considered in further detail by the AER in its Incentive Guidelines, which will be

²⁸ Clause 6A.7.4(b)(3) states that the maximum revenue increment or decrement must fall within a range that is between 1% and 5% of the maximum allowed revenue for the relevant regulatory year.



updated in September 2025, the AEMC's determination suggests that it may not be appropriate to apply a financial penalty for projects such as Marinus Link that are subject to an ex post review. Given the AEMC's observations, MLPL considers that a 5% bonus or penalty CESS is an appropriate compromise at the present time, noting that:

- The potential impact on MLPL's MAR would be comparable to other incentive schemes;
- MLPL's CAP expressed mixed views on whether a CESS should apply or whether it was unnecessary to apply a further financial incentive beyond the ex post review;
- Our proposal is symmetrical, providing a bonus and penalty regime. We regard this approach as
 preferable to a bonus-only scheme, which is a reasonable inference from the AEMC's comments
 regarding the application of CESS penalties to actionable ISP projects that are subject to ex post
 reviews;
- While MLPL's scope for driving efficiency improvements may be limited, given the extent of outsourcing, the proposed financial incentive is likely to drive efficient performance in contract management and project governance;
- The potential for windfall gains or losses for customers and MLPL as a result of forecasting errors is ameliorated by a lower powered incentive scheme; and
- MLPL will face a very significant incentive to manage expenditure prudently and efficiently, given the risk of an adverse ex post review in the event of a cost overrun.

MLPL has therefore concluded that a 5% bonus/penalty rate should apply to Marinus Link for the duration of this revenue proposal, including the early works expenditure incurred in the pre-period.