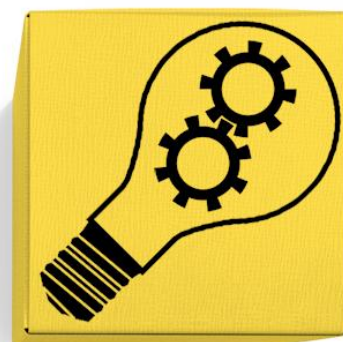


Relative and zero-sum incentive design for the ED3 network price control

Citizens Advice

29 April 2026



FINAL REPORT

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1. SUMMARY OF FINDINGS

In its response to Ofgem's ED3 Sector Specific Methodology Consultation, Citizens Advice proposed that relative and potentially zero-sum design should be used for a wider range of performance incentives in the ED3 price control. To develop the details and practicalities of this policy position, Citizens Advice commissioned CEPA to assess the potential benefits and drawbacks for consumers of greater reliance on relative and/or zero-sum incentives in ED3. In carrying out this assessment, we have considered zero-sum incentives as a specific type of relative incentive.

This report is not intended to make firm recommendations on the final form of individual ED3 incentives. Rather, its purpose is to identify where relative and potentially zero-sum design could be considered further as Ofgem develops the ED3 incentive framework, and to set out the issues that Citizens Advice and Ofgem may need to consider in deciding whether, where and how to use them.

The role of competitive pressure in network regulation

Competitive market outcomes can be a useful benchmark for network regulation. In a competitive market, companies delivering above-average quality earn returns above the cost of capital, while weaker performers earn lower returns until they catch up. As long as the quality of outputs is sufficiently within company control and companies lagging behind can credibly catch up, this kind of competition would drive continuous quality improvements for consumers.

A comprehensive discussion of the extent to which network price controls should aim to mimic the outcomes of competitive markets is beyond the scope of this report. In fact, a clearer view from Ofgem on the role of competition in network regulation, and ED3 in particular would be helpful in framing the discussion of relative and zero-sum incentives. This is particularly important because the appropriate role for relative incentives depends in part on what Ofgem considers a good overall incentive package to deliver: for example, whether the package should be calibrated so that the average efficient DNO expects to earn its allowed return and how this interacts with guardrails such as the Returns Adjustment Mechanism.

Additionally, ED3 determinations will be made in the context of a major expected increase in electrification and associated need for distribution network investment. The choice of incentive design tools to be used in the regulatory framework will therefore also need to consider the need to balance delivery against an ambitious investment programme and the need to ensure consumers get a 'fair deal' through their bills.

The expected increase in electrification and associated network investment in ED3 also matters: where the role of regulation is to enable a growing market and a significant expansion in network capacity, the case for requiring all quality-related incentives to be zero-sum may need to be considered alongside wider delivery and investment objectives.

In this report, we find that there are many instances where introducing a degree of competitive pressure between DNOs could at least in principle create stronger incentives to produce desirable outcomes for consumers. With this in mind, we developed and applied an analytical framework aimed at identifying which incentives within the potential ED3 regulatory framework would be most suitable for consideration for a relative design.

Our assessment focuses on exploring the extent to which potential ED3 incentives could be suitable for a relative and potentially zero-sum design. Broader questions about which outcomes the ED3 framework should incentivise, and decisions on the final form and calibration of incentives, are outside the scope of this report.

Scope and suitability for relative design

We applied an initial filter to assess which categories of incentive mechanism (e.g. Output Delivery Incentives, Price Control Deliverables, etc.) are intended to encourage changes in company behaviour and affect company returns. We then assessed each individual incentive in these ‘qualifying’ categories for its suitability for relative design.

We then assessed each individual incentive, including specific ODI-Fs, against three criteria:

- **Competitive outcomes:** The incentive should be targeting outcomes which would be effectively encouraged through competition between DNOs.
- **Exogenous factors:** DNOs should have the ability to control their performance under the incentive and affect their position relative to other DNOs.
- **Absolute targets:** The case for a relative incentive design is stronger where setting a fair absolute target for the incentive is difficult or where continuous improvement above the target is desirable.

Table 1 lists the eight potential ED3 incentives identified as suitable candidates for a relative incentive design, out of a total 19 incentives assessed. Each incentive is scored on a 5-point scale from ‘very weak’ to ‘very strong’ suitability for a relative design, against the three criteria. Across the 19 individual incentives taken through the detailed suitability assessment, the eight strongest candidates comprise six ODI-Fs, alongside the TIM and the BPI.

Table 1: Suitability assessment outcomes for potential ED3 incentives found to be most suitable for a relative design

Incentives	Competitive outcomes	Exogenous factors	Absolute targets
<i>Description</i>	<i>The incentive targets outcomes which would be encouraged by competition.</i>	<i>DNOs have the ability to control their performance under the incentive.</i>	<i>Setting an appropriate absolute target for the incentive is difficult or undesirable.</i>
Distribution System Operation (DSO)	Very strong	Strong	Very strong
Time to Connect	Very strong	Strong	Strong
Smaller connections incentive, including Low Carbon Technologies (LCTs)	Very strong	Mixed	Very strong
Totex Incentive Mechanism (TIM)	Very strong	Mixed	Strong
Business Plan Incentive (BPI)	Strong	Very strong	Strong
Voltage management (potential new incentive)	Strong	Mixed	Very strong
Loss optimisation (potential new incentive)	Strong	Mixed	Very strong
Load related delivery (potential new incentive)	Strong	Mixed	Very strong

Source: CEPA analysis.

A recurring issue across the assessment is around exogenous factors, which is often the criterion on which incentives score least strongly. This is not especially surprising, given the material differences between DNOs in geography, network characteristics, customer mix and other external factors. However, this is a challenge for incentive design more generally, rather than a concern specific to relative design: any fair financial incentive should reward and penalise companies on outcomes they can meaningfully influence.

The relevance of exogenous factors also depends on the type of external factor and the information asymmetry that Ofgem is trying to address. Structural difference in exogenous factors which are relatively stable over time can be addressed, at least in part, by basing the assessment on metrics which are more robust to these factors – as discussed in the next section. This is a challenge for both relative and absolute incentives, although it may be of particular concern for relative incentives. However, where there are unexpected in-period changes in exogenous factors that affect the performance of all DNOs, relative incentives would automatically address this, as these changes would be reflected in performance across all DNOs. Incentives based on absolute targets would not.

On the basis of the scoring, DSO and Time to Connect appear to be the clearest candidates for a relative design, while smaller connections, including LCTs, and TIM also score very strongly, albeit with more mixed results on exogenous factors. The BPI also appears to be a strong candidate, while for voltage management, loss optimisation and load-related delivery the case for a relative design is strengthened by the potential difficulty of setting fair absolute targets.

Design of relative incentives

Whilst we have found that some incentives could be suitable for having stronger elements of relative design, we have not found as strong a rationale for a zero-sum design specifically. This reflects the fact that a zero-sum design is most straightforward where an incentive is purely relative: for example, where rewards and penalties are based on performance above or below the industry average, and the strength of rewards and penalties is symmetric. When backstops or conditions are introduced, the incentive will likely no longer be suited to a zero-sum design.

In practice, several design features are likely to be desirable for individual incentives. Rewards and penalties should, as much as possible, be based on metrics that already account for potential exogenous differences between DNOs, which may otherwise limit their ability to affect their scores. The strength of relative incentives should also be tied to DNOs' performance in absolute terms, potentially with a cap to the overall strength of rewards/penalties, such that the outcome of the incentive remains proportionate under a relative design. This is to avoid situations where the incentive produces large differences in returns for relatively modest differences in performance.

Where Ofgem has a clear view of the minimum level of performance it expects from DNOs, earning rewards can also be made conditional on beating an absolute backstop target, and/or on improving performance compared to a historical benchmark. This can help tailor the design of each incentive to the specific priorities that Ofgem is trying to pursue, creating a hybrid design which combines absolute and relative design features. However, as discussed, while these kinds of design features may be desirable, they can make a zero-sum design less practical and, in some cases, lead to counter-intuitive outcomes. When backstops or conditions are appropriate, it may therefore be preferable to adopt other types of relative design, without necessarily imposing a zero-sum outcome.

When applied to the specific incentives shortlisted in Table 1, these findings point away from a single zero-sum model for all ED3 incentives, even where a relative incentive is appropriate.

For **retained ED2 ODI-Fs** such as the DSO and Time to Connect incentives, we find that a hybrid relative design with an absolute backstop may be appropriate. These incentives already have established design features which Ofgem may wish to retain, such as the DSO incentive's absolute target and asymmetric reward/penalty structure, and the TTC incentive's use of improvement against historical performance and deadbands. While introducing relative elements into these incentives could sharpen competitive pressure between DNOs, it is unlikely to require redesigning them from scratch as pure relative, zero-sum incentives.

Some **newer incentives** may be better suited to a more fully relative design, if exogeneity concerns can be addressed. This may apply in particular to the proposed smaller connections incentive, including LCTs, and to potential new incentives on voltage management, loss optimisation and load-related delivery. For these incentives, the metrics and targets are less established, and Ofgem may have less historical evidence on which to set fair absolute targets. A relative design could therefore allow the benchmark to emerge from observed DNO performance during ED3, although the underlying metrics would still need to be designed carefully.

The **BPI** already contains relative elements, particularly in Stage B where comparatively assessed costs are benchmarked across companies. There may also be scope to introduce more explicit relative elements into Stage C, for example by making clearer that Ofgem will compare the ambition and deliverability of DNOs' business plan commitments. However, this would need to be balanced against the risk of encouraging unrealistically ambitious commitments, which could be mitigated by retaining a strong focus on deliverability and potentially deferring rewards until commitments are delivered.

The **TIM** already contains an ex-ante relative element, because baseline cost allowances are informed by a comparative cost assessment. A more fully relative design would go further, by making the impact of the TIM depend on the cost efficiencies achieved by each DNO relative to those achieved by others during the price control. This could help avoid disproportionate rewards or penalties where under- or over-spend is common across the sector, but would represent a significant change to the design of the TIM and would need to be considered in the context of the wider package of risks and rewards.

Package-level considerations

Greater reliance on relative incentives will affect expected returns and risk across the possible package of ED3 incentives. For example, returns under different incentives may be skewed towards rewards or towards penalties when considered individually, but might result in an appropriately balanced package once taken together. A comprehensive discussion of exactly what balance that package should strike falls outside the scope of this work. However, this report offers some insights into the role that relative incentives might play in affecting that balance.

First, the question of whether relative incentives should be zero-sum is better considered at package level, rather than for each incentive individually. The incentive package can be calibrated so that the average efficient DNO expects to earn its allowed return without requiring every individual incentive to be zero-sum. This is important because, as discussed above, many of the design features that may be desirable for individual incentives – including absolute backstops, historical improvement conditions and caps – may not be compatible with a pure zero-sum design.

Second, zero-sum for DNOs as defined in this report does not necessarily mean zero-sum for consumers. Even where rewards and penalties net to zero across DNOs in RoRE or totex terms, this does not necessarily equate to a neutral impact on consumer bills.

Third, the impact of introducing more relative design elements to the incentive package on DNO risk perception is uncertain. On the one hand, relative incentives may increase perceived risk because DNOs do not know the benchmark in advance and because, in a zero-sum design, some DNOs will always receive penalties. More hybrid designs can also be complex, particularly where they combine relative benchmarks with absolute backstops, historical performance conditions and caps on rewards or penalties. This complexity may itself increase perceived risk if the overall package becomes harder for DNOs and investors to understand.

On the other hand, relative incentives can reduce risk in some circumstances. This may be the case where exogenous factors affect all DNOs in a similar way, or where Ofgem has limited information to set credible absolute targets ex ante. In those cases, using in-period average performance to calibrate the benchmark can act as a form of protection against targets being set too high or too low at the start of the price control.

Overall, ED3 should remain a 'fair bet' for DNOs, remunerating them in a way that is proportionate to the risks they take on in delivering the priorities of the price control, while protecting consumers from excessive costs or returns. Relative performance incentives can be a useful tool to achieve this outcome, but their role should be considered across the incentive package as a whole. This includes considering how relative incentives interact with wider package calibration, the cost of capital, cost assessment, and guardrails such as the Returns Adjustment Mechanism.

2. BACKGROUND AND CONTEXT

Since 2013, Ofgem has applied the RIIO framework for the economic regulation of energy network companies in Great Britain.¹ Under this approach, Ofgem sets baseline allowances to deliver core services and minimum standards. Performance incentives are used to encourage companies to deliver innovation and outputs that are valued by consumers and other stakeholders.

2.1. EXPECTED DIRECTION OF TRAVEL IN ED3

ED3 will be the next price control period for electricity distribution companies, running from 1 April 2028 to 31 March 2033. This is expected to be a period of significant investment in GB distribution networks to facilitate the rollout of low-carbon technologies such as heat pumps and electric vehicles. There will be upwards pressure on consumer bills from any increases in allowed revenues of Distribution Network Operators to fund this investment.

In the ED3 Sector Specific Methodology Consultation (SSMC), Ofgem has proposed a more strategic, anticipatory and delivery-focused framework for ED3.² The SSMC puts 'more emphasis on plan-led delivery', with less flexibility for DNOs to change the scope and timing of outputs.

This increased focus on delivery is expected to translate into several changes to the regulatory framework and to the package of incentives. For example, Ofgem is considering:

- an increased reliance on Price Control Deliverables (PCDs) to adjust baseline cost allowances based on actual outturn delivery, with Ofgem expecting PCDs to cover the majority of the investment plan;
- amendments to the Totex Incentive Mechanism (TIM) to focus it on rewarding unit or project cost efficiency, rather than rewarding lower spend regardless of outputs; and
- changes to the Business Plan Incentive (BPI) to link rewards more strongly to the delivery of business plan commitments.

Output Delivery Incentives (ODIs) are also expected to be retained and potentially strengthened as a mechanism to reward or penalise DNOs based on the quality of the outputs they deliver during the price control.

2.2. CITIZENS ADVICE'S POSITION

In its response to the SSMC, Citizens Advice has argued that to avoid 'over-rewarding' DNOs, more incentives should have relative targets with zero-sum rewards/penalties.³ Specifically, Citizens Advice's response states that:

*'Incentives must not over-reward DNOs. Where incentives are being paid for DNOs to do something which consumers are already paying for, via baseline allowances or otherwise, Ofgem needs to justify this. If it is the case that Ofgem is trying to incentivise DNOs to do something exceptionally well, and better than previously, the incentives should reflect this. We strongly recommend that most incentives have relative targets, rewarding the best performing DNOs and penalising the worst, with a fixed minimum standard set as a backstop, and the incentive not being financed through consumer bills but from penalties incurred by worst performing DNOs.'*⁴

¹ Ofgem has applied the RIIO framework to Transmission (electricity and gas) and Gas Distribution since 2013, and Electricity Distribution since 2015. RIIO stands for 'Revenue = incentives + Innovation + Outputs'.

² Ofgem, 2025, ED3 Sector Specific Methodology Consultation, available [here](#).

³ Citizens Advice, 2025, Citizens Advice response to ED3 Sector Specific Methodology Consultation, available [here](#).

⁴ Ibid., page 10.

Elsewhere in the response, Citizens Advice sets out its view that:

*'In a competitive market, competition rewards those who produce higher- quality services/goods with zero-sum rewards (i.e more customers, at the cost of another firm losing customers), and do so efficiently with net positive rewards (i.e better profit margins, which does not detract from the profit margins of other firms). For that reason, one essential way of avoiding duplicative incentives is to ensure incentives regarding the quality of the output (ODI-Fs) are zero sum and relative.'*⁵

2.3. PURPOSE OF THIS REPORT

In this report, we analyse this position and consider the benefits and potential drawbacks for consumers of adopting a relative and/or zero-sum approach when designing incentives in ED3. We do this in four parts:

- In Chapter 3, we set out our analytical approach, beginning with the question of what 'competitive market outcomes' might mean in the context of the incentive framework for a network price control.
- In Chapter 4, we apply the analytical framework to the incentive mechanisms we expect to be included in ED3. While significant uncertainty remains about both the list and the design of these incentives, this initial assessment gives an early indication of which may be most suited for a relative design.
- In Chapter 5, we move on to discuss how relative incentives could be designed in practice for ED3, to address the potential risks or drawbacks of a relative design.
- In Chapter 6, we look at the overall ED3 incentive package, and discuss how introducing more relative and potentially zero-sum incentives may impact the overall balance of risks and rewards for the price control.

2.4. DEFINITIONS

Table 2 contains the definitions used in this report of three terms in the above quotations from Citizens Advice's response to the ED3 SSM.

Table 2: Definitions of key terms

Term	Definition
Relative incentive	An incentive whereby the reward or penalty for each company is based on that company's performance relative to other companies in the price control.
Zero-sum incentive	A type of relative incentive where the total sum of rewards issued equals the total sum of penalties issued, expressed as a percentage Return on Regulated Equity (RoRE) or as a percentage of total expenditure (totex).
Fixed minimum standard	An absolute target which needs to be met for a company to receive a reward, even if its performance is good relative to other companies.

Source: CEPA definitions agreed with Citizens Advice

Our definition of zero-sum incentives links rewards and penalties to RoRE. Under this definition, differences in scale between network companies means that in £ terms, the total rewards issued to DNOs may not equal the total penalties under a 'zero-sum' incentive. In other words, zero-sum for DNOs may not mean zero-sum for consumer bills: even where rewards and penalties net to zero across DNOs in RoRE or totex terms, this does not necessarily equate to a neutral impact on consumer bills.

⁵ Ibid., page 84.

3. ANALYTICAL APPROACH

In this chapter, we set out our analytical approach to assess the suitability of relative and zero-sum design to the incentives being considered for ED3.

This approach is informed by the rationale for relative and zero-sum incentives. Therefore, we begin this chapter by discussing the role of network regulation in replicating the outcomes of competitive markets for monopoly network operators.

We then set out our analytical approach, which is structured in three layers:

- **Scope:** a filtering exercise to identify the categories of incentive mechanisms to take forward for more detailed review.
- **Suitability:** an assessment of the suitability for relative design of individual incentives in the categories that pass the scope filter.
- **Design:** a discussion of the considerations for the detailed design of possible relative incentives.

3.1. COMPETITIVE OUTCOMES IN NETWORK REGULATION

Citizens Advice's response to Ofgem's SSMC states that 'in a competitive market, competition rewards those who produce higher-quality services/goods with zero-sum rewards'.⁶

This points to two separate questions:

- Should network regulation seek to replicate the outcomes of competitive markets?
- In what sense do competitive markets produce zero-sum rewards based on relative performance?

Should network regulation aim to replicate competitive outcomes?

Replicating competitive outcomes for natural monopoly network companies was the stated ambition of the UK Government at the time of the development of the RIIO price control framework. For example, in 2011 the Department of Energy & Climate Change wrote, in the Final Report of its Ofgem Review:

*'The role of economic regulators should be concentrated on protecting the interests of end users of infrastructure services by ensuring the operation of well-functioning and contestable markets where appropriate or by designing a system of incentives and penalties that replicate as far as possible the outcomes of competitive markets.'*⁷

We have not been able to find a more recent statement of intent from the government which is as explicit about the overall purpose of economic regulation, either confirming or contradicting this aim. Clearly, a lot has changed since 2011, and DNOs are now expected to deliver substantial volumes of capital investment which is crucial to meet government targets for the energy transition. At the same time, the increased focus on energy bills since the 2022 energy crisis – and much more recently since the beginning of the war in the Middle East – reinforces affordability for consumers as a key priority for economic regulation.

In recent years, the Government has given additional priorities to Ofgem and other economic regulators, such as the introduction of a duty relating to economic growth. This increases the emphasis on delivering and enabling positive outcomes for the wider economy – beyond simply ensuring that costs are kept at an efficient level.⁸

⁶ Ibid., page 84.

⁷ Department of Energy & Climate Change, 2011, Ofgem Review Final Report, available [here](#).

⁸ HM Treasury, 2025, New approach to ensure regulators and regulation support growth, available [here](#).

However, a core objective of network regulation remains to keep costs for consumers as low as they can be while achieving these aims. For example, in the foreword to the ED2 Final Determinations Ofgem stated that ‘help[ing] keep the costs of the low carbon transition as low as possible for consumers’ was one of its ambitions.

Additionally, the Independent Water Commission’s review of regulation in the water sector, often referred to as the ‘Cunliffe Review’, has criticised Ofwat’s ‘over-reliance’ and ‘over-development’ of industry-wide benchmarking.⁹ While the Cunliffe review focused on economic regulation in the water sector, it specifically discusses the risks of excessive reliance on performance incentives based on relative industry benchmarking. As discussed in more detail in Chapter 6.2 and in Appendix A.4, this has potential implications for any relative incentives for the electricity distribution sector.

Finally, DESNZ has recently published its latest Ofgem Review.¹⁰ As the Review sets out, Ofgem was originally established ‘to protect the interests of consumers [...] wherever appropriate by promoting effective competition’.¹¹ However, the Review then continues to state that:

‘[T]he removal of a stand-alone reference to competition from Ofgem’s statutory duties recognises that Ofgem should have greater flexibility over how and where it considers competition when protecting consumer interests and supporting economic growth. Competition is inherent in a market that is innovating and focusing on the needs of consumers, but a narrow focus on competition for its own sake has been shown not to work as needed in the context of energy consumers.’¹²

This discussion of the explicit reference to competition in Ofgem’s statutory duties should be read in the context of Ofgem’s overall duties, including in regulating the energy retail market. It should therefore not be interpreted narrowly as a statement about network regulation. That said, clearly the Government’s view about the extent to which the objective of regulation in the energy sector should be to replicate competitive market outcomes has evolved in the last two decades and acquired more nuance. The Review explicitly recognises that promoting competition is not an end in itself; rather, competition is framed more like one of several potential tools to achieve positive outcomes for consumers and other stakeholders. These positive outcomes are broader than just avoiding excess profits, and include priorities such as promoting economic growth, decarbonisation, and delivering ‘a fair deal for consumers as we transition to net zero’.¹³

In this context, an explicit view from Ofgem on the extent to which they see network price controls, and ED3 in particular, as attempting to replicate the outcomes of competitive markets would be very helpful in framing the discussion of relative and zero-sum incentives for ED3.

In this paper, we assume that competition can be a tool to achieve good outcomes for consumers in some aspects of network regulation. Effective competitive pressure can incentivise DNOs to find more efficient ways to improve their quality of service, creating better outcomes for consumers while eliminating excess profits.¹⁴ However, we also recognise that in some instances the intention of regulation is not to replicate the outcomes of market competition, such as when companies are incentivised to collaborate on common projects in consumers’ interests. This is captured in our ‘competitive outcomes’ criterion in our detailed assessment of individual incentives, as discussed in Section 3.2.

⁹ Independent Water Commission, 2025, Final Report, available [here](#). See in particular Chapter 5.1 on economic regulation.

¹⁰ DESNZ, 2026, Ofgem Review: Final Report, available [here](#).

¹¹ Ibid.

¹² Ibid.

¹³ Ibid.

¹⁴ For a more comprehensive discussion of the ‘properties of effective competition’ in the context of network regulation, see S. Littlechild, 2010, The nature of competition and the regulatory process, Interonomics, available [here](#). This paper is discussed in more detail in Appendix A.1. While it is primarily focused on cost-based regulation of utilities, its discussion of the properties of effective competition also apply to the kinds of quality-based competition discussed in this chapter.

Do competitive markets produce zero-sum outcomes?

When considering how relative and zero-sum incentives can drive competitive market outcomes, it is important to first establish what kind of market-based competition can serve as an appropriate benchmark for competitive outcomes in network regulation.

There is an extensive academic literature on yardstick competition, where the explicit focus is on replicating the effects of competition in the regulation of natural monopolies. However, the focus of that literature is primarily on cost regulation; that is, on ensuring that regulated companies keep their costs at an efficient level. In setting efficient cost allowances for DNOs in ED2, Ofgem already effectively adopts a relative approach through benchmarking the costs of each network against the costs of all other networks. This benchmarking approach involves adjustments designed to control for the impact of exogenous factors.¹⁵

Citizens Advice is focusing on a different aspect of network regulation: using relative and zero-sum incentives to drive high-quality outputs and efficient delivery, rather than efficient costs. Here, there is significantly less regulatory precedent for mechanically assessing the performance of each DNO against that of others, and less precedent still for explicitly doing so in a way designed to lead to zero-sum outcomes.¹⁶

In principle, there is no reason why many of the insights from comparative cost benchmarking could not be translated to a discussion of comparative quality-of-service benchmarking. As we will see later in this chapter, many of the challenges are similar, such as the need to control for exogenous factors driving DNO-specific outcomes. However, while comparative cost benchmarking has been used extensively in regulating monopoly networks both in GB and abroad, experiences with relative incentives aiming to replicate the same approach to incentivise quality-of-service are much rarer.¹⁷ It is therefore worth considering specifically what competitive outcomes look like in the context of firms competing on quality, rather than just on price.

While very simple, the illustrative example in Box 1 helps set a theoretical benchmark for what competitive outcomes might look like in the context of quality-of-service incentives for DNOs.

In this conceptual model of a competitive market, there should be no reason to believe that only one particular firm is able to improve the quality of the good it sells or the service it provides. In our café example, we might expect each café to occasionally come up with new ways to improve the quality of its coffee, enjoying returns above the cost of capital until other cafés have caught up. All other cafés would earn returns below the cost of capital for a period, until they are able to implement quality improvements.

¹⁵ See Ofgem, 2022, RIIO-ED2 Final Determinations Core Methodology Document, available [here](#).

¹⁶ Again, more detail on this is provided in Appendix A.

¹⁷ Appendix A.3 provides a more detailed discussion of this, including a discussion of one recent example in which a GB regulator did design a relative quality-of-service incentive: Ofwat's Service Incentive Mechanism (SIM) in PR09.

Box 1: An illustration of quality-based competition with fixed market size

Quality-based competition with fixed market size: a simple illustration

Let us consider a hypothetical market in which similar firms compete over the quality and price of the same good. For example, this could be multiple cafés competing for a fixed number of customers in a town by aiming to improve the quality of their coffee at a competitive price. Let us also assume that the total number of coffees consumed in the town is fixed.

We start in equilibrium whereby each café is earning enough revenue to recover its operating costs and earn its cost of capital on the original investment that went into its fixed costs – the coffee machines, tables, chairs, etc. This means that each café is able to earn a mark-up over the marginal cost of selling each coffee, and also able to sell enough coffees to earn its cost of capital.

Let us now assume that one of these cafés manages to substantially improve the quality of its coffee, e.g. by hiring a new expertly skilled barista or discovering a new coffee variety. This attracts new customers, who no longer buy their coffee from some of the other cafés. In the short term, the consequence is that the café that managed to improve the quality of its coffee earns higher returns, above the cost of capital, while other cafés lose revenue and therefore earn lower returns, below the cost of capital. For this example, we assume that the ‘poorer-performing’ cafés continue to at least recover their operating costs.

In the longer term, we might expect other cafés to eventually catch up in terms of the quality of their coffee, as they also hire new baristas or adopt higher-quality coffee varieties. Eventually, a new equilibrium is reached where each café earns the cost of capital again – but all consumers in the town can enjoy higher-quality coffee.

If a café were unable to catch up with industry-wide improvements in quality, it would earn returns below the cost of capital on an ongoing basis and eventually exit the market. New cafés could enter the market and offer coffee of higher-than-average quality, continuing to exert competitive pressure on all other cafés and delivering continuous quality improvements to consumers.

The competitive outcomes in this example are consistent with Citizen Advice’s rationale for relative and zero-sum incentives for DNOs: DNOs delivering services of higher-than-average quality should earn a return exceeding the cost of capital, whereas DNOs below the average should earn a return below the cost of capital.¹⁸

This simple illustrative example provides a model of quality-based competition to serve as a theoretical benchmark for discussions on relative and zero-sum incentives. However, that discussion should also consider how the reality of network regulation may deviate from this theoretical benchmark:

- First, each company needs to be able to sufficiently control the quality of the service it is providing.
- Second, it must be possible for companies who are initially lagging behind on quality to catch up, including potentially through additional investment. They should be able to earn their cost of capital over a period of time that is consistent with their financing needs. Otherwise, the positive dynamic of continuous quality improvements breaks down.¹⁹

¹⁸ Unlike in our illustrative example, a DNO consistently earning returns below the cost of capital could not simply exit the market, with its customers moving to a different DNO. However, capital market dynamics could at least in principle replicate the same competitive dynamic: a DNO consistently unable to keep its quality of service in line with industry standards could be acquired by new owners who see an opportunity to increase performance and therefore returns.

¹⁹ This point is emphasised in the Cunliffe Review in the context of industry-wide relative benchmarks in the water sector, and the potential ‘doom loop’ that they risk introducing: companies with poor performances are penalised, leaving them with a reduced ability to invest. In turn, this prevents them from being able to catch up with industry-wide performance, leading to further penalties. We return to this discussion in Chapter 6.2.

- Third, this analogy is based on a simple market with no externalities, information asymmetries, or coordination failures – all of which may be relevant in the context of network regulation.

Finally, the example implicitly assumes that the total size of the market (the number of coffees sold) is fixed, such that the growth of one company's customer base necessarily comes at the expense of another's. If the market as a whole can grow (e.g. more coffees are sold overall in the town), each company's performance would still depend on its performance relative to all others – but the outcome will not be zero-sum. This raises an interesting question for electricity distribution in a world where electrification, particularly of transport and heat, is likely to be an important element of the energy transition.

3.2. ANALYTICAL APPROACH

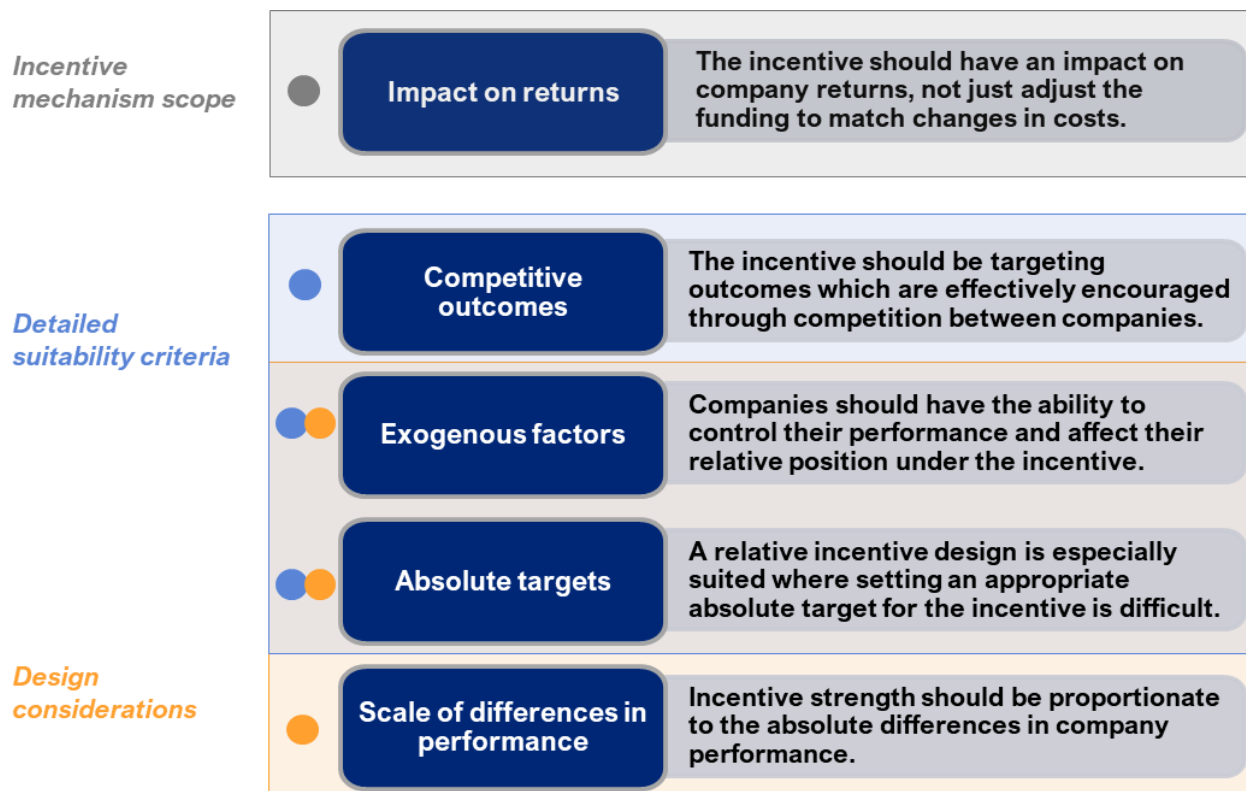
We have developed an analytical approach with three layers:

- **A scope filter** to establish whether a category of incentive mechanism is suitable at a high-level for consideration for relative design.
- **Detailed suitability criteria** which we use to assess whether each individual incentive in the categories that pass the scope filter is suitable for a relative design.
- **Design considerations** for relative incentives, to help deliver intended outcomes whilst reducing risks and likelihood of unintended consequences.

Figure 1 provides an overview of our approach.

'Exogenous factors' and 'absolute targets' are used as both suitability criteria and design considerations. This is because while these criteria are important in determining whether an incentive is suitable for a relative design, the detailed design of the incentive can influence the extent to which they are met. This includes addressing concerns raised in the suitability assessment.

Figure 1: Overview of the analytical approach for relative and zero-sum incentives



Source: CEPA analysis

Incentive mechanism scope

The first criterion is that the incentive mechanism in question needs to be aimed at affecting the company's behaviour in some way and include a financial penalty or reward that will impact its returns.

Mechanisms that adjust the company's funding allowance to reflect changes in the cost base but leave returns unaffected are not considered in scope. For example, this includes changes in allowances if lower or higher volumes are delivered. This is to narrow the focus of this analysis on the type of incentives which Citizens Advice discusses in its response to the ED3 SSMC; namely, those that affect DNO returns.

Detailed suitability criteria

For the categories that pass the initial filter, we assess individual incentive mechanisms against three suitability criteria:

- **Competitive outcomes:** Section 3.1 discusses the extent to which the purpose of network regulation should be to replicate the outcomes brought about by competitive markets. Competition can be an effective tool to encourage DNOs to improve their quality of service, ultimately leading to better outcomes for consumers. However, this is not necessarily true of all outcomes covered by incentives in recent ED price controls. For example, Ofgem has introduced incentives aimed at encouraging collaboration between DNOs in specific areas; in these instances, introducing competitive pressure would likely not lead to improved outcomes for consumers.
- **Exogenous factors:** As discussed in Section 3.1, the rationale for a relative incentive design depends on DNOs being able to sufficiently control their performance against the relative benchmark. Relative incentives are less appropriate if there are persistent reasons outside the control of the DNOs as to why one can perform better than another. This might include factors such as the density of the network, the weather, or customer characteristics which vary from DNO region to DNO region. At the same time, relative incentives can help address concerns with exogenous factors that affect the performance of all DNOs in the same way, but vary from price control to price control – decreasing Ofgem's ability to assess them fairly in absolute terms. The suitability of each incentive for a relative design depends on which of these types of exogenous factors is expected to play a more significant role in affecting DNO performance.
- **Absolute targets:** Assessing performance based on a relative benchmark may be useful to help Ofgem address difficulties in confidently setting appropriate absolute targets ex ante. For example, this could be true for newly introduced incentives, where Ofgem may not have all the information it needs to set an achievable but stretching target which will lead to positive consumer outcomes. But it might also apply more generally where Ofgem wants to encourage continuous improvement on a given metric but lacks the information to set the 'right' target for improvements in the future. Relative incentives encourage DNOs to outcompete each other and continuously improve their performance. This dynamic is often desirable, where continuous improvements on the metric in question leads to increases in consumer benefits, and lets the target emerge from this competitive pressure – without a need for Ofgem to set it ex ante. In other cases, however, where continuous improvement above a certain threshold is redundant or does not lead to additional benefits, there may be less of a case for relative incentives.

Design considerations

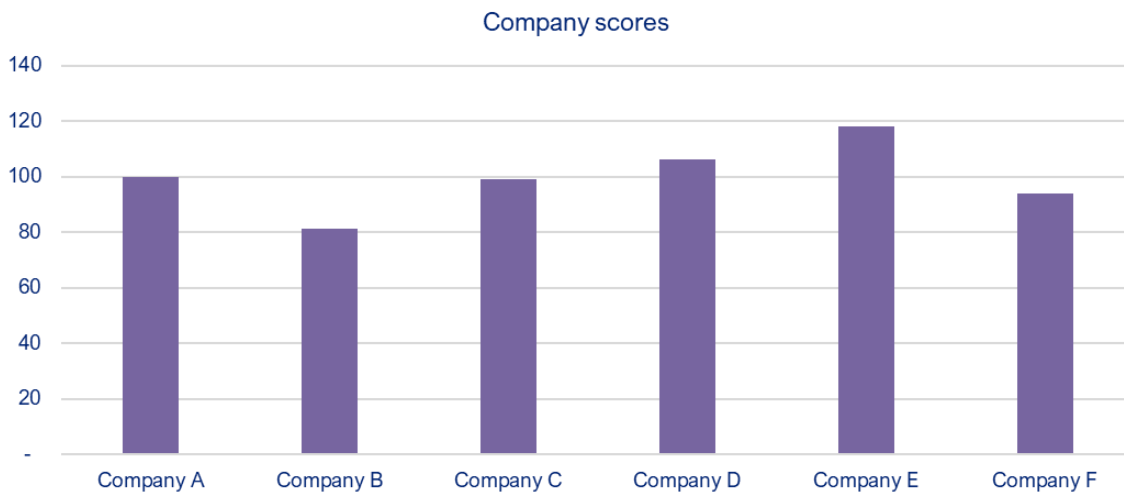
There are many different ways of designing a relative incentive. For example, Figure 3 illustrates the differences in outcome from two different designs of zero-sum incentive applied to six companies based on their performance shown in Figure 2 (assuming that, in this case, a higher score denotes better performance).

In both cases in Figure 3, the total sum of rewards equals the total sum of penalties. However, the impact on individual companies is different. Design A and Design B differ in two important ways – the strength of the incentive, and the shape of the incentive.

The overall **strength** of the incentive can be defined as a design parameter that determines the difference between the impact on returns for the best and worst performing company. It is about 8 bps of RoRE for Design A and about 15 bps of RoRE for Design B.

The **shape** of the incentive can be defined as the pattern by which incentive outcomes vary across the performance distribution, for a given overall incentive strength: Design A results in one relatively large reward for Company E and mostly small penalties for all other companies. In contrast, Design B results in one large penalty for Company B and smaller rewards (in relative terms) for all other companies. Neither design results in a symmetric outcome, although this could be another potential outcome of a relative, zero-sum incentive.

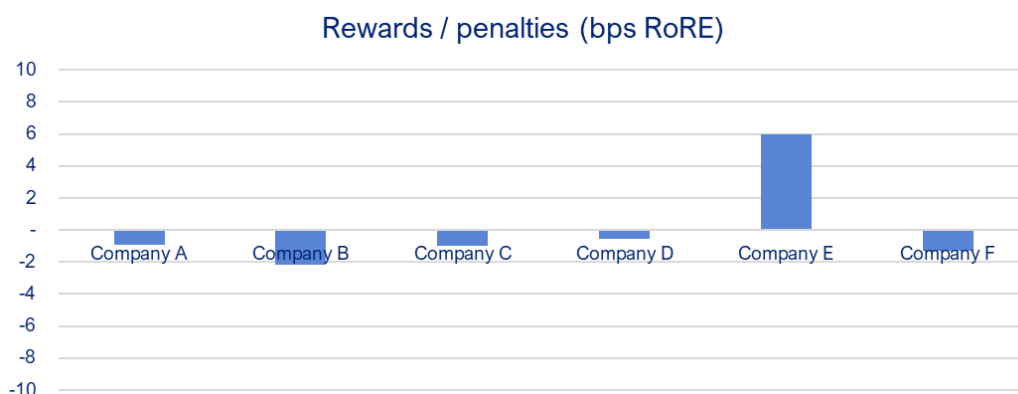
Figure 2: Score distribution for a hypothetical relative incentive



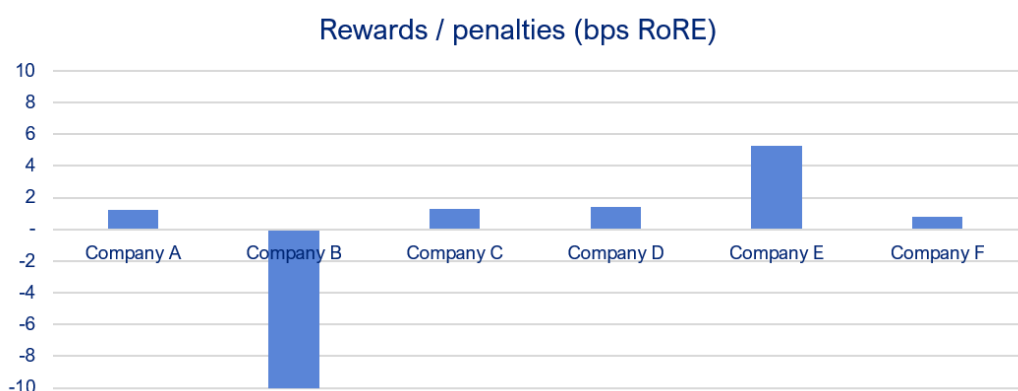
Source: CEPA analysis

Figure 3: Rewards and penalties based on two alternative relative zero-sum incentive designs

(1) Design A



(2) Design B



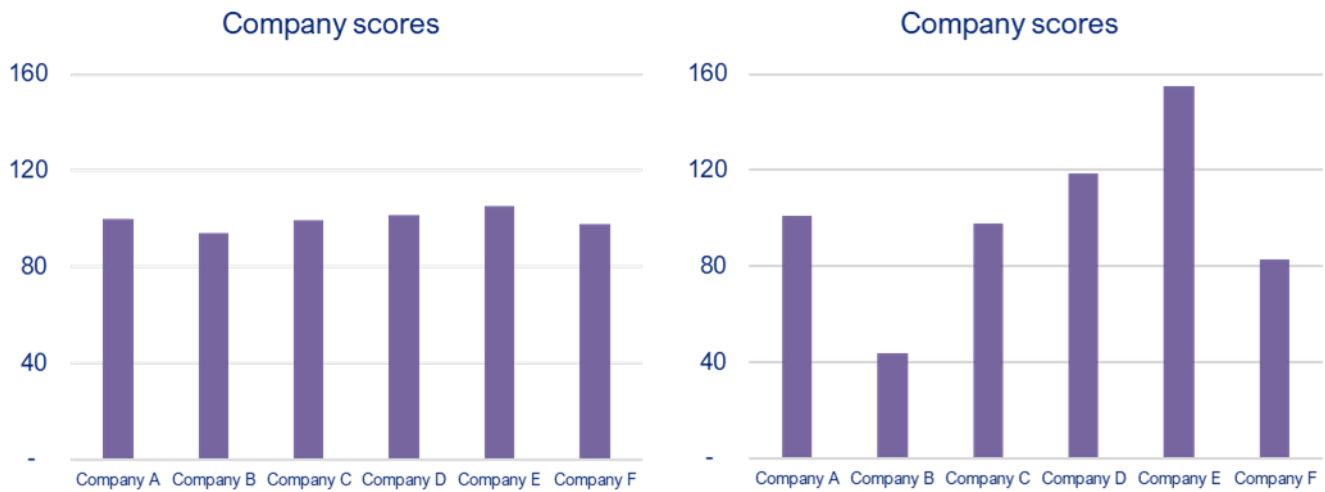
Source: CEPA analysis

Ofgem also has a choice as to the exact **metric** that the incentive's rewards or penalties will be based on. Figure 2 simply shows a generic metric on the y-axis, but in reality there may be multiple options. For example, the rewards or penalties for an incentive on customer satisfaction could be based on a score in a customer satisfaction survey, or on the number of complaints, or on each company's improvements in reducing complaints over time.

Our analytical approach highlights three important issues for designing a relative incentive:

- **Exogenous factors:** Where an incentive did not score strongly on 'exogenous factors' in the suitability assessment, consideration can be given as to whether these factors can be controlled for through the choice and design of the metric used to determine each company's score.
- **Absolute targets:** Where an incentive did not score strongly on 'absolute targets' in the suitability assessment, it may be possible to address this by applying hybrid elements such as absolute target backstops to the relative incentive design.
- **Scale of differences in performance:** If the size of the maximum penalty or reward for a zero-sum incentive mechanism is fixed in advance, then a company that has only marginally underperformed the rest of the industry may be disproportionately penalised. For example, consider the spread of scores in the two graphs in Figure 4. In both cases, the average score and the relative ranking of companies is the same, but the absolute spread of scores differs significantly. A well-designed relative incentive may need to avoid disproportionately rewarding or penalising companies when the distribution of absolute scores is very tight, as this may create disproportionate outcomes and amplify the effects of any uncertainty in measurement. At the same time, where large differences in performance exist, this should proportionately lead to larger rewards and penalties.

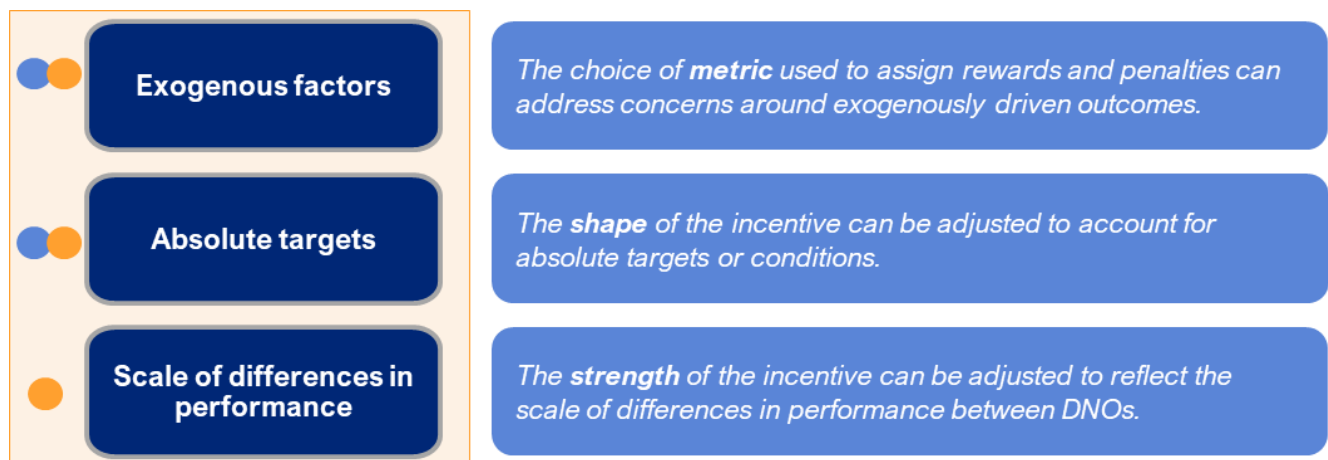
Figure 4: Two alternative distributions of company scores



Source: CEPA analysis

Figure 5 shows how the three design considerations we have discussed map to different elements of incentive design. This is discussed in greater detail in Chapter 5.

Figure 5: Summary of design considerations and associated design characteristics



Source: CEPA analysis

4. ASSESSMENT OF POTENTIAL ED3 INCENTIVES

This chapter applies the scope and suitability criteria from the analytical framework discussed in Chapter 3 to the incentive mechanisms that have been discussed for inclusion in ED3. The aim is to identify which types of incentive mechanisms, and which specific incentives, might be suitable for a relative design.

We first assess each category of incentive against the ‘scope’ criterion. Four categories pass this filter: Financial Output Delivery Incentives (ODI-Fs), the Business Plan Incentive (BPI), Totex Incentive Mechanism (TIM), and Network Asset Risk Metric (NARM). We then apply the suitability assessment to 19 individual incentives in these categories.

We have identified eight incentives that are most suitable for consideration for a relative design:

- Distribution System Operation (DSO)
- Time to Connect
- Smaller connections incentive, including Low Carbon Technologies (LCTs) (**potential new incentive**)
- Totex Incentive Mechanism (TIM)
- Business Plan Incentive (BPI)
- Voltage management (**potential new incentive**)
- Loss optimisation (**potential new incentive**)
- Load related delivery (**potential new incentive**).

Six other incentives might be suitable depending on their detailed design. We judge the remaining five to be unlikely to be suitable for a relative incentive design.

In the detailed suitability assessment of each incentive, we consider the current design of incentives in the ED2 regulatory framework, and the description in the SSMC of the design of potential new ED3 incentives at a high level.

4.1. SCOPE ASSESSMENT OF DIFFERENT CATEGORIES OF INCENTIVE MECHANISM

This section applies the first criterion in the analytical approach – does the mechanism have an impact on company returns, rather than simply adjusting the funding allowance to reflect changes in efficient costs?

ODI-Fs and the **BPI** are explicit financial incentives that include rewards expressed as a proportion of RoRE. As such, they represent the clearest case for passing the initial filter. Reputational Output Delivery Incentives (**ODI-Rs**), on the other hand, are not in scope as they are reputational only, with no associated financial incentive.

The **TIM** operates as a sharing factor applied to over- or under-spend compared to baseline cost allowances. It is not directly defined as a RoRE-based incentive in the same way as ODI-Fs or the BPI. However, it can have a very significant impact on company returns. Therefore, we judge it to be in scope for a more detailed assessment.

Price Control Deliverables (PCDs) are an important component of the ED2 framework, and are expected to play an even more important role in ED3 (see Section 2.1). As currently designed, PCDs are effectively a funding adjustment mechanism, used to reduce the baseline funding allowance when outputs have not been delivered, in

part or in full, or have been delivered late.²⁰ However, they do not operate as a direct financial impact on company returns and are therefore not in scope for further review.

The **NARM** is a framework which can be broken down into three components:

- the metric itself that incentivises DNOs to reduce long-term network asset risk and maintain safe, reliable networks;
- the funding adjustments associated with changes in the level of the metric (similar to a PCD), and
- the financial penalty applied for under-delivery (similar to an ODI-F).

Only the latter of these three components is in scope of this review, since it is the only one which is intended to impact company returns.

The Return Adjustment Mechanism (**RAM**) is explicitly designed as a mechanism to adjust company returns, and therefore passes the initial filter. However, the RAM is designed as a close-out risk mitigation mechanism rather than an explicit financial incentive. As such, we do not assess it for suitability for a relative incentive design in the remainder of this chapter. However, we do return to a discussion of the RAM in Chapter 6, when we discuss broader considerations about the overall balance of risks and rewards across the entire price control regulatory framework.

Other uncertainty mechanisms such as **volume drivers** and **re-openers**, and **innovation funding** all failed the initial filter and are not in scope for further review. These are all funding adjustment mechanisms, rather than financial incentives expected to impact company returns.

²⁰ In the water sector, Ofwat applies 'time incentives' associated with PCDs, which penalise water companies for late delivery of outputs covered by PCDs. These time incentives do impact company returns. However, since they are not currently used by Ofgem in PCD design, we do not consider PCDs to be in scope for a detailed suitability analysis.

Table 3: Incentive mechanisms grouped by category that pass first stage assessment

Incentive category	Description	Incentive mechanism	Impact on company returns?
Financial Output Delivery Incentives (ODI-Fs)	Incentives that financially reward or penalise DNOs for delivering specified outputs and service outcomes relative to targets.	Financial reward and/or penalty through in-period revenue adjustments for performance against output targets.	Yes
Business Plan Incentive (BPI)	Incentivises DNOs to submit high-quality, ambitious business plans with the information Ofgem needs to set efficient allowances.	Financial rewards/penalties through a multi-stage assessment, including an assessment of business plan clarity and quality and rewarding companies for efficient cost submissions and ambitious business plan commitments. Each stage is associated with a separate reward or penalty.	Yes
Totex Incentive Mechanism (TIM)	The sharing factor that determines how underspends/overspends vs totex allowances are shared between companies and consumers.	Confidence-dependent sharing factor (company-specific in ED2) applied to under/over-spend compared to baseline cost allowances. ED2 final incentive rates range from approximately 49.3% to 50.0% (post-tax effective).	Yes
Network Asset Risk Metric (NARM)	Incentivises DNOs to reduce long-term network asset risk and maintain safe, reliable networks.	The mechanism primarily works as a funding adjustment to the baseline balance for NARM-related improvement works. However, there is also an element of direct financial penalty for under-delivery.	In part (penalty for under-delivery)

Source: CEPA analysis of Ofgem ED2 and ED3 documentation

Table 4: Incentive mechanisms grouped by category that fail first stage assessment

Incentive category	Description	Incentive mechanism	Impact on company returns?
Reputational Output Delivery Incentives (ODI-Rs)	Non-financial incentives that use transparency, benchmarking and publication of performance to encourage delivery against target outputs.	Public reporting, annual publication, benchmarking and stakeholder/Ofgem scrutiny; no direct financial reward or penalty.	No
Price Control Deliverables (PCDs)	Specifies deliverables linked to funded activity, allowing Ofgem to monitor and ensure that planned investment and outputs have been delivered as funded.	Allowances are adjusted ex-post based on actual outputs delivered (before TIM sharing factors are applied). Not a direct financial incentive.	No (except through the TIM)
Return adjustment mechanism (RAM)	An ex-post backstop mechanism that adjusts network company returns where overall realised returns are materially above or below the baseline allowed return.	Symmetric upward/downward sharing factors applied at price control close-out (after considering TIM, ODIs and other incentives) if realised returns breach defined thresholds around the baseline allowed RoRE.	Yes , but only at price control close-out, therefore not assessed for suitability
Re-openers	Mechanisms that allow elements of the price control to be revisited where specified triggers or material changes in circumstances arise.	Trigger-based re-assessment of allowances and outputs during the control period. It can increase or decrease allowances depending on the evidence and trigger conditions.	No
Volume drivers	Automatic mechanisms that adjust allowances or revenues when defined activity volumes differ from forecast levels.	Automatic allowance adjustments using pre-set unit rates applied to actual delivered volumes.	No
Innovation funding	Funding mechanisms that support the development, trial and deployment of innovative solutions that improve network performance and consumer outcomes.	Upfront innovation allowances and competitive funds (principally NIA/SIF ²¹ , with possible deployment funding), potentially subject to eligibility tests, conditional withholding and/or linked BPI consequences. No standard reward/penalty structure.	No

Source: CEPA analysis of Ofgem ED2 and ED3 documentation

²¹ The Network Innovation Allowance (NIA) and Strategic Innovation Fund (SIF) are two distinct funding mechanisms to encourage innovation in the energy sector as part of the RIIO-2 price control framework.

4.2. SUITABILITY ASSESSMENT OF INDIVIDUAL INCENTIVES

This section assesses the suitability of incentives that have passed the initial assessment filter for a potential relative design in more detail. The assessment is based on our understanding of each incentive's current design, with potential design improvements discussed further in Chapter 5. The incentives are assessed on a 1-5 scale against the three suitability criteria, where 5 indicates a strong case for a relative incentive design and 1 indicates a weak case.

Table 5: Assessment scale for suitability criteria

Suitability criteria	Very weak = 1	Weak = 2	Mixed = 3	Strong = 4	Very strong = 5
Competitive outcomes - <i>The incentive targets outcomes which would be encouraged by competition.</i>	Competition would be counterproductive in this area; collaboration and coordination are more important	Competition is likely to play only a limited role in improving outcomes	Competition could improve some outcomes, but the case is mixed or uncertain	Competition between companies is likely to improve outcomes	Competition between companies is likely to strongly improve outcomes
Exogenous factors - <i>DNOs have the ability to control their performance under the incentive.</i>	Mainly driven by external factors; little company control	Strong external influence; only partial company control	Mix of company control and external drivers	Mostly within company control; limited external influence	Within company control; relative performance highly informative
Absolute targets - <i>Setting a fair absolute target for the incentive is difficult or undesirable.</i>	Fair absolute targets can be set confidently; little need for relative design	Absolute targets mostly workable, with some limitations	Material uncertainty around fair absolute targets	Absolute targets hard to set fairly; relative design more attractive	Absolute targets very difficult to set credibly; relative design strongly preferred

Source: CEPA analysis

The overall categorisation of 'most suitable', 'potentially suitable', or 'not suitable' in Table 5 reflects a holistic judgement informed by the scores against all three criteria. We place greatest weight on competitive outcomes and exogenous factors. In general, incentives need to score 4 or 5 on competitive outcomes and at least 3 on exogeneity to be considered suitable. Within that group, incentives are most likely to be classified as most suitable where the case for relying on absolute targets is also relatively weak. Incentives fall into the category of 'potentially suitable' where absolute targets appear more workable. Incentives may also be judged to be potentially suitable where performance on one of the first two criteria is less strong, but a relative design could help address particular difficulties in setting fair absolute targets (e.g. a 4 or 5 on that criterion).

By contrast, incentives scoring 1 or 2 on competitive outcomes or exogeneity are judged to not be suitable for a relative design, since either competition is unlikely to improve outcomes or relative performance would be too strongly affected by factors outside companies' control. NARM is the exception to this general rule in the sense that, even though it scores highly in competitive outcomes and exogeneity, the absolute target should be zero and no company should be under-delivering against their allowance without justification, therefore it is not deemed suitable as a relative incentive.

A recurring issue across the assessment is the influence of exogenous factors, which is often the criterion on which incentives score least strongly. This is not especially surprising, given the material differences between DNOs in

geography, network characteristics, customer mix and other external factors. However, this is a challenge for incentive design more generally, rather than a concern specific to relative design: any fair financial incentive should reward and penalise companies on outcomes they can meaningfully influence.

Based on our assessment, eight incentives appear to be the most suitable for a relative design, six may be suitable subject to further design considerations, and five appear not to be suitable. An overview of the scores from the detailed suitability assessment is set out in Table 6, with the full assessment provided in the sections that follow.

Table 6: Overview of assessment of individual incentives

Incentive	Competitive outcomes	Exogenous factors	Absolute targets
Incentives most suitable for a relative design			
Distribution System Operation (DSO)	5	4	5
Time to connect	5	4	4
Smaller connections incentive, including Low Carbon Technologies (LCTs)	5	3	5
Totex Incentive Mechanism (TIM)	5	3	4
Business Plan Incentive (BPI)	4	5	4
Voltage management	4	3	5
Loss optimisation	4	3	5
Load related delivery	4	3	5
Incentives potentially suited to a relative design, depending on detailed design			
Customer Satisfaction Survey	5	3	3
Complaints Metric (Penalty only)	5	3	3
Major Connections (Penalty only)	5	3	3
Interruptions Incentive Scheme	5	3	2
Dig, Fix and Go, ENWL only	3	3	5
Mechanism to drive deployment of innovation	3	3	5
Incentives not suited to a relative design			
Network Asset Risk Metric (NARM)	5	3	1
Time to Connect (TTC) for larger connections	5	2	5
Long-duration unplanned interruptions (12+ hours)	3	2	5
Collaborative Streetworks, UKPN only (Reward only)	1	3	5
Consumer Vulnerability Incentive	1	3	3

Source: CEPA analysis

4.2.1. Financial Output Delivery Incentives (ODI-Fs)

The tables below set out the individual ODI-Fs which we either expect to be retained from ED2 or expect to be added based on the ED3 SSMC. Where Ofgem presents new incentives in the ED3 SSMC that could be either financial or reputational, we assume for the purposes of this assessment that they will be introduced as financial incentives and therefore assess them at an individual level. Appendix B has a full description of all ODI-F incentives, including current information on the metric, design and the reward/penalty mechanism.

Table 7: Assessment against suitability criteria of ODI-Fs expected to be retained from ED2

Incentive	Description	Competitive outcomes	Exogenous factors	Absolute targets
Customer Satisfaction Survey	Incentivises DNOs to improve customer service quality and reward exceptional performance.	Very strong (5): Competition between companies is likely to strongly improve outcomes.	Mixed (3): Service quality is mostly within company control, including responsiveness, communication and customer handling.	Mixed (3): Historical performance data is available for comparison.
Complaints Metric (Penalty only)	Incentivises good performance in how DNOs handle complaints.	Very strong (5): Competition between companies is likely to strongly improve outcomes.	Mixed (3): Companies control complaint handling processes, but complaint incidence is also shaped by network events and customer behaviour. Outcomes therefore reflect both company performance and external drivers.	Mixed (3): Absolute targets can be set based on historical performance and expected minimum standard to avoid penalties. However, more difficult for Ofgem to judge how minimum standards should evolve over time.
Time to Connect	Incentivises reducing time to connect minor connections customers.	Very strong (5): Competition between companies is likely to strongly improve outcomes with a clear consumer-facing outcome.	Strong (4): Companies have substantial control over quoting, processing and delivery times. Some external dependencies remain, including customer readiness and some project-specific factors.	Strong (4): Absolute targets can be hard to calibrate fairly.
Major Connections (Penalty only)	Incentivises quality of service for major connections customers.	Very strong (5): Competition between companies is likely to strongly improve outcomes.	Mixed (3): Delivery is affected by customer readiness, third parties, planning issues and project complexity. This weakens the extent to which outcomes provide a clean read-through to company performance.	Mixed (3): Fair absolute targets are hard to set credibly given the bespoke and heterogeneous nature of large projects. However historical data is available for each network.
Consumer Vulnerability Incentive	Incentivises appropriate support services for consumers in vulnerable situations.	Very weak (1): The incentive encourages collaboration between external stakeholders and is not suited to competition.	Mixed (3): Companies can influence outreach and support quality, but outcomes also depend on demographics and customer circumstances.	Mixed (3): Absolute targets can be set by individual DNO, however hard to set fairly due to qualitative nature of incentive.

Incentive	Description	Competitive outcomes	Exogenous factors	Absolute targets
Distribution System Operation	Incentivises DNOs to develop and use networks efficiently, including flexible/smart alternatives to reinforcement.	Very strong (5): Competition between companies is likely to strongly improve outcomes.	Strong (4): Although outcomes can be shaped by network conditions, DNOs are able to directly control their DSO initiatives and activities.	Very strong (5): Credible absolute targets are hard to specify because the activity is still evolving. This weakens confidence in a fixed target.
Interruptions Incentive Scheme	Incentivises improving reliability and reducing outages	Very strong (5): Competition between companies is likely to strongly improve outcomes.	Mixed (3): Weather, geography, asset condition and network topology materially affect outcomes.	Weak (2): Absolute targets can be informed by historical performance and engineering data.
Dig, Fix and Go, ENWL only	Bespoke incentive to reduce restoration time associated with unplanned interruptions / emergency street works.	Mixed (3): Bespoke single-company incentive, however, if applied to more DNOs then competition between companies is likely to improve outcomes.	Mixed (3): DNOs have some control over restoration processes and street works management, but outcomes also depend on local conditions and emergency works context.	Very strong (5): Absolute targets are harder to benchmark externally because the measure is bespoke and applies to only one company, limiting insights from historical data.
Collaborative Streetworks, UKPN only (Reward only)	Bespoke incentive to enable UKPN participation in the Greater London Authority (GLA) collaborative streetworks programme.	Very weak (1): Bespoke single-company incentive. This incentive is not suited to competition as it requires collaboration.	Mixed (3): DNOs have some control over street works locally, however circumstances can differ for individual DNOs.	Very strong (5): Absolute targets are very difficult to set credibly because the measure is programme-specific and collaborative by design.

Source: CEPA analysis

Table 8: Assessment against suitability criteria of ODI-Fs expected to be introduced from ED3

Incentive	Description	Competitive outcomes	Exogenous factors	Absolute targets
Smaller connections incentive, including Low Carbon Technologies (LCTs)	Incentive covering smaller connections, including small-scale LCT connections and associated enabling works, with metrics potentially varying by connection type.	Very strong (5): Competition between companies is likely to strongly improve outcomes.	Mixed (3): Companies influence processing and delivery, but outcomes also depend on customer readiness, third parties and connection mix.	Very strong (5): Absolute targets are hard to set robustly, given lack of historical information on metric.
Time to Connect (TTC) for larger connections	Considering introducing an ODI-F reward or penalty on TTC for larger connections in addition to other changes.	Very strong (5): Competition between companies is likely to strongly improve outcomes.	Weak (2): Outcomes are materially affected by project-specific dependencies, third-party processes and customer readiness. This limits the extent to which timing differences reflect company performance alone.	Very strong (5): Fair absolute targets are very hard to set because this is a new incentive.
Long-duration unplanned interruptions (12+ hours)	Considering a specific incentive or penalty mechanism, complementary to IIS, to address long-duration unplanned interruptions.	Mixed (3): Competition does improve outcomes, however low event frequency and uneven exposure reduce the strength of competition.	Weak (2): Severe weather and network-specific exposure have a major effect on long-duration interruptions. This means outcomes are only partly within company control.	Very strong (5): Confidence is limited by the rarity and volatility of events.
Voltage management – new incentive for provision of flexibility through demand reduction	Proposed new incentive rewarding DSOs for providing flexibility via voltage management (temporary voltage reduction), with metrics to be set.	Strong (4): Competition between companies is likely to improve outcomes.	Mixed (3): Networks can influence procurement and operational use of flexibility, but opportunities are also shaped by local system conditions and demand patterns.	Very strong (5): This is a new incentive with metrics still to be developed, so there is limited historical evidence for setting absolute targets.

Incentive	Description	Competitive outcomes	Exogenous factors	Absolute targets
Loss optimisation – financial/reputational incentive	Consultation on whether there is a case for financial or reputational incentives to encourage active loss optimisation by DSOs, and what form these could take.	Strong (4): Competition between companies is likely to improve outcomes.	Mixed (3): Networks can influence outcomes. However, they are also influenced by network physics, topology and legacy asset mix.	Very strong (5): This is a new area for incentive design, with limited historical data and unresolved measurement issues, making robust absolute targets difficult to set.
Load related delivery incentives – financial penalties for under-delivery	Considering whether additional delivery incentives (e.g. financial penalties for under-delivery) are needed to support delivery performance.	Strong (4): Competition between companies is likely to improve outcomes.	Mixed (3): Networks control delivery effort to a degree, but timing and execution can also be affected by external approvals, supply chains and demand uncertainty.	Very strong (5): Absolute targets are hard to set fairly due to it being a new type of incentive.
Incentive/mechanism to drive deployment of innovation that doesn't primarily benefit networks	Interest in introducing mechanisms (potentially an incentive) to drive deployment of innovations that benefit consumers/system but don't directly benefit networks.	Mixed (3): Competition might encourage innovation that benefits consumers, however incentive may involve collaboration and spillovers.	Mixed (3): Companies can choose whether to support deployment, but outcomes also depend on partners, innovators and wider market conditions.	Very strong (5): Absolute targets are hard to define because the relevant innovations and benefits are varied and still uncertain.

Source: CEPA analysis

4.2.2. Business plan incentive (BPI)

Network regulation involves a substantial degree of information asymmetry between the regulator and the regulated companies, relating to both efficient costs and feasible levels of outputs. Regulated companies have an incentive to overstate their costs and propose low-ambition delivery plans and commitments – since they could then earn rewards by finding cost efficiencies and overdelivering compared to their commitments. The BPI is intended to help address this asymmetry by incentivising companies to submit complete, accurate, and high-quality business plans.

While the ED3 design of the BPI is not yet finalised, it is expected to follow the three stages of the RIIO-3 (T/GD) design applied in transmission and gas distribution:

- **Stage A** (pass/fail, penalty only) assesses the completeness of companies' business plans to ensure business plans contain the basic information needed to set the price control effectively.
- **Stage B** (asymmetric, skewed towards rewards where costs are comparatively assessed) rewards companies which submit efficient and well-justified costs, with the highest rewards assigned to companies which submit efficient cost estimates used to benchmark comparatively assessed cost.

- **Stage C** (symmetric) rewards or penalises companies based on the quality of their business plans, including for proposing ambitious and deliverable commitments.²²

For comparatively assessed costs, Stage B is already effectively designed as a relative incentive in RIIO-3, but not a zero-sum one. Rewards or penalties depend on whether submitted costs are below or above the industry benchmark, which is set by comparatively assessing costs across all companies.

In the ED3 SSMC, Ofgem consulted on potential changes to Stages B and C, taking the RIIO-3 design as a starting point:

- Removing Stage B and rewarding DNOs who submit efficient costs in their business plan through a different mechanism.
- Making Stage B more strongly asymmetric, potentially reward-only, and setting the strength of the incentive for comparatively assessed costs mechanically based on how much more efficient the costs of the most efficient company are compared to the chosen industry benchmark.
- Strengthening Stage C and focusing it more strongly on ambition and deliverability, making the BPI the main tool for Ofgem to assess the quality of DNOs' delivery plans.
- Making Stage C reward-only, or asymmetric and skewed toward rewards.
- Deferring Stage C rewards for stretch commitments until those commitments are actually delivered, potentially as late as ED3 close-out.²³

Our assessment in this section assumes that Stage B will be retained, but is agnostic as to which of these changes, if any, will be implemented in ED3. Table 9 summarises our assessment of the ED3 BPI against the three suitability criteria.

Table 9: Assessment of the BPI against the suitability criteria

Criterion	Assessment	Commentary
Competitive outcomes	Strong (4)	The BPI is primarily a truth-telling incentive, which is not directly aimed at increasing quality of service. However, it does offer financial rewards and penalties in return for DNOs improving the quality of their business plans. This could be incentivised further through competitive pressure. There are also some positive externalities involved in what the BPI is aiming to incentivise: higher-quality business plans from any one company enable Ofgem to set a more effective price control for all companies. This is most evident for comparatively assessed costs in Stage B.
Exogenous factors	Very strong (5)	The BPI is about incentivising truth-telling and effective business planning by DNOs. These are entirely in DNOs' control.
Absolute targets	Strong (4)	The BPI is not a new incentive. Stage A in particular is based on clearly set out minimum requirements which effectively constitute an absolute target for quality. More generally, however, cost efficiency and justification (Stage B) and ambition and deliverability of outputs (Stage C) are more difficult to measure in a way that would allow Ofgem to clearly set an absolute ex-ante target.

Source: CEPA analysis

²² Ofgem, 2024, RIIO-3 Sector Specific Methodology Decision – Overview Document, available [here](#).

²³ Ofgem, 2025, ED3 Sector Specific Methodology Consultation, available [here](#).

In summary, **the BPI appears to be a potential candidate for a relative incentive design**. It is already designed as a relative incentive in part – particularly for comparatively assessed costs within Stage B – and a more explicit relative design could be considered for bespoke costs and for Stage C. For example, Ofgem could make it clear that when assessing the ambition and deliverability of business plan commitments it will not issue the maximum reward to all DNOs, and will compare DNO plans against each other.

One downside of a more explicitly relative design for Stage C might be that it could encourage DNOs to submit unrealistically ambitious business plan commitments in order to ‘beat’ other DNOs on ambition. To mitigate this risk, Ofgem would need to be very clear about how it would assess the deliverability of business plan commitments. Additionally, deferring Stage C rewards until these commitments have been delivered should maintain a strong incentive to ensure DNOs do not submit unrealistic commitments.

4.2.3. Totex Incentive Mechanism (TIM)

The TIM is a sharing factor applied to the difference between baseline funding allowances and outturn spend. Through the TIM, DNOs share the cost of overspends and the benefit of underspends with consumers.

In ED3, Ofgem is proposing to retain the TIM, but in a form that is more conditional on delivery of outputs than in RII0-3 T/GD.²⁴ Rather than simply rewarding companies for under-spends on their overall totex allowance, Ofgem wants the ED3 TIM to reward efficient delivery of agreed outputs rather than lower costs achieved by reducing or deferring delivery. Efficiencies will primarily be identified as delivering below the expected unit-cost level. To achieve this, Ofgem intends to use PCDs as the main conditionality tool and use them to cover most of the investment plan. This way, Ofgem would adjust totex allowances before TIM sharing where outputs are not delivered and prevent DNOs from keeping a TIM benefit from under-delivery.

Other aspects of the detailed design of the TIM were left open in the SSMC, including the exact way the sharing factors will be set. Ofgem is keeping open the possibility of both company-specific and sector-wide sharing factors, as well as potential asymmetric sharing factors for over- and under-spend.

Unlike ODI-Fs or the BPI, the TIM is not expressed as a direct financial incentive with RoRE rewards or penalties based on a particular metric or score. However, TIM ‘rewards or penalties’ could be computed as proportions of the baseline totex allowance – after adjustments for PCDs, volume drivers, etc. – by expressing the company share of any under-spend or over-spend as a percentage of baseline totex. Alternatively, they could be expressed as bps of RoRE.

The TIM already contains an element of ex-ante relative assessment, in that the cost allowance target that each company is trying to beat was set through a comparative cost assessment exercise. However, a fully relative design for the TIM would imply some kind of mechanism to adjust sharing factors ex post based on the average over- or under-spend across DNOs versus their individual ex-ante allowances. This would make the totex or RoRE impact of the TIM dependent on the cost efficiencies achieved by each company in relation to those achieved by all others.

Table 10 assesses the proposed ED3 version of the TIM against suitability criteria for a relative design.

²⁴ Ofgem, 2025, ED3 Sector Specific Methodology Consultation, available [here](#).

Table 10: Assessment of the TIM against the suitability criteria

Criterion	Assessment	Commentary
Competitive outcomes	Very strong (5)	Finding cost efficiencies is arguably the most obvious example of a desirable competitive market outcome. In a competitive market the extent to which these will lead to higher returns depends on how they compare with the efficiencies found by other companies. Replicating this through the TIM could strengthen the incentive for DNOs to find cost efficiencies during the price control.
Exogenous factors	Mixed (3)	Ofgem's cost assessment process explicitly adjusts ex-ante cost allowances with the aim of accounting for exogenous differences in cost drivers between DNOs. DNO costs should therefore be benchmarked as much as possible on a like-for-like basis, and their ability to find efficiencies should therefore be largely comparable. However, depending on how the cost assessment is carried out, the ease of achieving efficiencies versus ex-ante allowance of comparable magnitude may differ across DNOs.
Absolute targets	Strong (4)	The 'target' for the TIM is effectively the baseline cost allowance for each company, which in ED is typically set through a process which is already comparative in ex-ante terms. Regulatory judgement is involved in this process, and in particular in choosing the specific efficiency benchmark within the distribution of efficiency scores (e.g. whether to set the benchmark at the upper quartile, or at a different percentile, and whether to introduce a glide path).

Source: CEPA analysis

If the TIM is aiming to replicate a competitive outcome, it should not disproportionately reward (or penalise) companies for under-spends (or over-spends), if these are the norm across the sector. Section 5.2.4 discusses how the TIM could be designed to incorporate more ex-post relative design elements – beyond the comparative process already used to set ex-ante cost allowances.

4.2.4. Network Asset Risk Metric (NARM)

The NARM uses condition and criticality information of network assets to estimate a monetised measure of long-term asset risk. This allows an assessment of each DNO's asset management activities not just by how much is spent or how many assets are replaced, but by whether it actually manages network risk within reasonable bounds.

Ofgem sets an allowance based on companies' plans to maintain asset risks at a target level. At close-out, if DNOs have delivered lower risk metrics improvements than funded for, their allowance is reduced accordingly, through a PCD-style metric. Additionally, if the under-delivery is unjustified, DNOs face a penalty associated with the under-delivered amount, to create a deterrent against unjustified deferral or cancellation of asset-health driven work.

This under-delivery penalty, which is expected to be retained in ED3, is the only component of the NARM which acts as a financial incentive affecting company returns.

Table 11: Assessment of the NARM incentive component against a potential relative design

Criterion	Assessment	Commentary
Competitive outcomes	Very strong (5)	In a competitive market, companies should have a strong incentive to maintain healthy assets.
Exogeneity	Mixed (3)	There may be specific reasons for a DNO to justifiably under-deliver against its NARM target. This is why only unjustified under-delivery faces a penalty.
Absolute targets	Very weak (1)	Since the penalty is only for unjustified under-delivery, by definition the target should be zero: no company should be under-delivering against their allowance without justification. This is the main reason why the penalty component of the NARM is unlikely to be suited for a relative incentive design.

Source: CEPA analysis

In principle, the financial penalty associated with NARM under-delivery could be made into a relative incentive by adjusting the value of the penalty based on the average performance of DNOs under the NARM. However, the rationale to do so appears to be weak given the very specific and limited role that the penalty plays within the overall NARM framework. As shown in Table 11, the reason for the incentive component of the NARM to be penalty-only is that no efficiently run company should ever under-deliver against their allowance without justification. There does not appear to be a strong rationale for applying a relative incentive design to this component of the NARM.

5. DESIGN CONSIDERATIONS FOR ED3 RELATIVE INCENTIVES

The previous section considered which ED3 incentives may be more or less suitable for a relative incentive design. The suitability assessment was based on the list of current and proposed new incentives as they are designed today, or proposed in the SSMC. In this chapter, we discuss the potential design of incentives which we have found to be most suitable for a relative design, including whether they should be designed as zero-sum.

We begin by discussing a general ‘toolkit’ to change the metric, shape and/or strength of the incentive to address the design issues introduced in the analytical framework set out in Chapter 3 – exogenous influences on performance, incorporating absolute targets into relative design, and linkages between scales of reward/penalty and magnitude of differences in performance.

We then explore the potential relative design of the eight individual incentives assessed as being most suitable for relative design in Chapter 4. We find that while some of the newer incentives to be introduced in ED3 may lend themselves well to a fully relative and possibly zero-sum design, for retained incentives from ED2 (including the BPI and the TIM) a hybrid approach is more likely to be appropriate.

5.1. RELATIVE INCENTIVE DESIGN TOOLKIT

This section describes the design tools that can be used to tailor the design of a relative incentive to meet specific needs or to address specific concerns with a fully relative design. These tools are not necessarily mutually exclusive, although in some cases we highlight incompatibilities between them. They are categorised into three groups: related to the incentive metric, shape, and strength.

This toolkit is not an exhaustive list of all possible design features for relative performance incentives. The potential use cases should be read as suggestions for further consideration rather than firm recommendations. However, these use cases inform the subsequent discussion in this chapter about the practical implementation of a relative design for the incentives judged to be most suitable for a relative design (see Chapter 4).

Metrics

The ability of a DNO to have sufficient influence over their performance compared to other DNOs is the most significant concern for the potential relative design of many expected ED3 incentives. The influence of exogenous factors on company performance – both in relative and in absolute terms – depends in part on how the incentive is designed, and specifically which metric rewards and penalties are based on.

The metric, or set of metrics, used to determine whether a DNO should be issued a reward or a penalty under a particular incentive can be designed to minimise the influence of exogenous factors on measured outcomes.

For example, the **Interruptions Incentive Scheme (IIS)** rewards DNOs for beating company-specific targets for reliability which are based on that company’s own historical performance, with improvement factors applied. These improvement factors are DNO-specific and based on the gap between each DNO’s historical performance and the historical industry benchmark – with more ambitious improvement factors for DNOs further away from the benchmark. In ED2, when discussing the unplanned interruptions target within the scheme, Ofgem wrote about this approach:

‘We believe that the existing unplanned target setting approach already drives DNOs over time to achieve a level of reliability that is comparable across DNO regions when accounting for the customer density, environmental conditions, and network characteristics of each DNO region.’²⁵

²⁵ Ofgem, 2020, RIIO-ED2 Methodology Decision: Annex 1 – Delivering value for money services for consumers, available [here](#).

In other words, in ED2 Ofgem explicitly designed the metric used to determine rewards and penalties under the scheme to ensure that exogenous factors, such as customer density or network characteristics, did not affect each DNO's ability to earn a reward.

The simplest option for the metric of an incentive is to measure DNOs' performance in absolute terms and base rewards and penalties on the score they achieve on that metric. If this assessment is based on a comparative benchmark, i.e. based on average performance across all DNOs during the period being assessed, rather than set as a fixed target *ex ante*, the incentive will follow a relative design.

However, this 'vanilla option' for choosing the assessment metric may not work in the context of persistent, structural exogenous factors which affect DNO performances and do not allow for a fair direct comparison between their scores, such as those identified by Ofgem in the above quote about the IIS. To address these types of concerns, the metric used for the assessment can be based on each DNO's historical performance, with DNOs assessed on their improvement against it. In a relative incentive, this assessment would happen comparatively: DNOs are rewarded or penalised based on their improvements relative to those of other DNOs.

Ofgem may also be concerned about other kinds of exogenous factors affecting DNO performance: within-period exogenous factors affecting all DNOs, which could not have been predicted at the beginning of the price control. A relative design can explicitly help to control for these kinds of exogenous factors: if all DNOs are affected by unexpected exogenous factors in the same way, this will be reflected in their average performance. Assessing DNO performance comparatively therefore automatically makes the assessment more resilient to common, in-period changes in these factors.

Where the concern is about specific exogenous factors that vary both across DNO areas and through time, an alternative to using performance against a historical benchmark as the assessment metric is to explicitly adjust the absolute metric to account for them. For example, suppose that the metric for an incentive is highly influenced by extreme weather events in the DNO region, which vary by region but are also not predictable or persistent over time. The metric used for the assessment could be explicitly adjusted *ex post* to control for the number and length of extreme weather events in each DNO region.

Finally, some incentives are scored based on a qualitative assessment using a scorecard: each DNO is assigned a score by an assessment panel based on the scorecard, and that score is translated into a reward or penalty. These kinds of incentives can also be redesigned to become relative assessments, by basing rewards and penalties on each DNO's qualitative score relative to that of other DNOs. To avoid the comparison being influenced by exogenous factors such as who undertakes the assessment, it is important that the scorecards and guidance for assessors are clear and that there are robust cross-checks to ensure consistent application.

These assessment metric design tools are summarised in Table 12.

Table 12: Relative incentive design toolkit: assessment metric tools

Assessment metric tools		
Design feature	Description	Potential use cases
Assessment based on absolute performance scale (vanilla option)	DNOs are assessed on their performance in absolute terms.	Where a direct comparison of DNO performance in absolute terms is fair, i.e. each DNO has the same ability to improve its performance in absolute terms, with no or limited concerns around exogenous factors influencing this.
Assessment based on performance against historical benchmark	DNOs are assessed on their performance against a benchmark based on their own historical performance, e.g. based on a moving average.	Where a direct comparison of DNO performance would be unfair due to exogenous factors, but all DNOs have comparable abilities to improve over their past performance.
Explicit adjustment for exogenous factors	Explicitly adjust the metric used to account for individual exogenous factors such as network scale metrics, exogenous events such as extreme weather, etc.	Can be considered where the exogenous factors impacting DNO performance vary both by region and through time.
Qualitative scorecard with relative features	Qualitative assessment against a scorecard with clear guidance and cross-checks for consistency.	Where the assessment is inherently qualitative and/or based on expert judgement.

Source: CEPA analysis

Incentive shape tools

As discussed in Section 3.2, the shape of an incentive is the pattern by which incentive outcomes vary across the performance distribution, for a given overall incentive strength. The most straightforward shape of a relative incentive is to set the target score for the assessment metric at the average performance across all DNOs.

Purely relative incentives, where the target for the incentive is set based on average performance across all companies, can be designed as zero-sum in a relatively unproblematic way. If the marginal strength of the incentive – i.e. the change in reward or penalty associated with a change in one unit of the metric used to assess the incentive – is set at the same level above and below the target, the sum of all rewards will equal the sum of all penalties. If the maximum reward or maximum penalty is to be capped, the marginal strength of the incentive can be adjusted to preserve the zero-sum outcome. This is the ‘vanilla option’ for the shape of relative incentives.

Relative incentives can also be combined with absolute targets, for example to provide an ‘absolute minimum standard’ which Citizens Advice highlight in their response to the SSMC.²⁶ However, when absolute performance targets are introduced into a relative design as backstops, the zero-sum design can lead to problematic results. For example, under a zero-sum design the introduction of a more challenging absolute target can result in a lower penalty for the worst-performing companies, even though their distance from the target has increased. This is because if the absolute target is higher than the average benchmark, rewards for companies above the target should reduce. However, to preserve the zero-sum outcome this means that penalties for companies below the target should also reduce: otherwise the sum of rewards would not equal the sum of penalties.

For example, consider the distribution of scores in the top-left graph Figure 6, with the dotted line showing the average score across all companies, and where higher scores are associated with better outcomes for consumers. The bottom-left graph shows the distribution of rewards and penalties that would be produced by a vanilla zero-sum

²⁶ See Table 2 in Section 2.4 for a definition of fixed minimum standard. For more detail on Citizens Advice’s proposals, see Citizens Advice, 2025, Citizens Advice response to ED3 Sector Specific Methodology Consultation, available [here](#).

design, where the assessment is based on performance against the average benchmark and the strength of the incentive is set such that a one-unit deviation from the benchmark is associated with a 1bp reward or penalty.

The two graphs on the right-hand side show the effect of introducing an absolute target backstop above the relative benchmark while still preserving a relative design. The reward for the one company that beats the higher absolute target has been reduced, as expected. However, in order to preserve the zero-sum design, so have the penalties of companies that were already falling short of the relative benchmark. While this is a simple illustration, it shows how applying hybrid design elements to relative incentives can lead to counterintuitive and undesirable outcomes if combined with a zero-sum design.

Figure 6: Rewards and penalties with and without an absolute target under a hypothetical relative zero-sum incentive design



Source: CEPA analysis. The dashed blue line in the top graphs shows the average score, while the solid red line shows the absolute target.

There are several reasons why Ofgem may decide to apply hybrid design elements to relative incentives. One of them could simply be that Ofgem already has a view about what a fair outcome for consumers should look like, such that even if the average industry performance falls short of that level DNOs should not be rewarded unless they exceed it. In these circumstances, Ofgem could set an absolute target backstop for all DNOs and assess DNOs based on whether they exceed the relative benchmark or the backstop – whichever is **higher**.

Alternatively, Ofgem may judge that for certain outputs, improvements beyond a certain minimum standard do not produce any additional value for consumers. This may be the case, in particular, for penalty-only incentives. In

these cases, Ofgem may use a different kind of absolute backstop target and assess DNOs based on either the relative benchmark or the backstop, whichever is **lower**.

These absolute target backstops need not necessarily be common to all DNOs and could instead be based on DNO-specific information or characteristics. One particular subset of these absolute backstops based on DNO-specific information is where past performance is used to set a DNO-specific backstop. For example, for a given incentive Ofgem may wish to avoid situations where DNOs are rewarded for providing a worse service than they did previously. In this case, Ofgem could set an absolute target backstop for each DNO based on that DNO's past performance – potentially with a deadband applied – and assess each DNO against the **highest** of either the past performance benchmark or the relative benchmark. This can put stronger incentives on DNOs to improve their performance when it is already above-average, although it may risk being overly punitive and potentially prevent DNOs from earning sustained benefits if they make quality-of-service improvements.

Conversely, Ofgem may not want to penalise DNOs with below-average performances if they are making meaningful improvements in their scores and 'catching up' with the industry benchmark, albeit not immediately.²⁷ In these instances, it may still use a past performance target backstop but base the assessment on the **lowest** of that backstop or the relative benchmark.

While using past performance as a target backstop can be a helpful tool in tailoring incentive design to Ofgem's specific priorities, it can have shortcomings. There may be a risk that it results in a relative incentive with diluted competitive pressure, or that it ends up being overly punitive or generous. Applying a materiality deadband to the backstop, such that it only applies when DNO performance materially deviates from the chosen historical benchmark, could in part mitigate these risks.

An alternative, which is in some ways a slightly weaker version of the same design tool, is to introduce a past performance benchmark as a condition, rather than as an absolute target backstop. Rewards or penalties could be calculated based on performance against a relative benchmark, but would only actually be awarded to DNOs if a specific condition based on past performance is met. Ofgem could make rewards conditional on DNOs improving – or at least not materially worsening – their performance against a historical benchmark. Alternatively, penalties could be suspended if DNOs are (materially) improving their performance. The difference between this approach and using past performance as an absolute target backstop is that here rewards (or penalties) could be suspended based on past performance, but not reversed into penalties (or rewards).

These relative incentive shape design tools are summarised in Table 13.

²⁷ This may be particularly important if Ofgem is trying to avoid the risk of a 'doom loop' discussed in Section 6.2.

Table 13: Relative incentive design toolkit: incentive shape tools

Incentive shape tools		
Design feature	Description	Potential use cases
Basic relative incentive design (vanilla option)	Set the target for the incentive (i.e. the score associated with no reward or penalty) to the average industry performance.	Where continuous improvement on the metric is desirable for consumers and/or there is limited information to base a fair absolute target on. The target should generally be set at the average if the aim is to achieve zero-sum outcomes.
Absolute target backstops	- Option A: set the target for the incentive as the higher of either the average score or an absolute target. - Option B: set the target for the incentive as the lower of either the average score or an absolute target. Could be common across all DNOs or DNO specific.	Where Ofgem already has a view of what a fair outcome for consumers should look like. Option A could be particularly useful where Ofgem has a view about an industry-wide minimum standard and for reward-only incentives. Option B could be particularly useful where benefits to consumers become less relevant above a certain threshold and for penalty-only incentives.
Past performance as a target backstop	- Option A: set the target for each DNO at the higher of either the average score or a past performance benchmark. - Option B: set the target for each DNO at the lower of either the average score or a past performance benchmark. Could include a materiality deadband.	Where Ofgem specifically wants to incentivise performance improvements, without changing the incentive metric to be entirely about performance improvements.
Past performance as a condition	- Option A: make rewards conditional on improving against past performance: DNOs performing above the target but below past performance receive no reward. - Option B: make penalties conditional on declining performance: DNOs performing below the target but improving on past performance receive no penalty. Could include a materiality deadband.	Where Ofgem specifically wants to incentivise performance improvements, without changing the incentive metric to be entirely about performance improvements. Compared to past performance as a target backstop, it weakens the link with past performance; this could be helpful if there is a worry that past performance as a target backstop is too punitive or risks diluting competitive pressure.

Source: CEPA analysis

Incentive strength tools

The strength of a relative incentive should, as far as possible, reflect the scale of the performance gap between companies and the relevant target. This can be achieved by scaling rewards and penalties to the magnitude of outperformance or underperformance, potentially subject to an overall cap, even when the target itself is set in relative terms.

The simplest way to set the strength of an incentive to ensure that it is proportionate to differences in performance is to set a fixed 'marginal incentive strength' linking each unit of increase in the score (based on the chosen assessment metric) to a specific change in rewards/penalties. This marginal strength could be set symmetrically above and below the target, such that a change of one unit of the assessment metric has the same marginal effect on returns regardless of the target, or asymmetrically. This, again, can be seen as the 'vanilla option' for incentive strength.

In some cases, there may be concerns about large differences in performance leading to very substantial impacts on returns. It may therefore be desirable to cap the maximum reward or penalty available under the incentive in RoRE terms. The maximum reward and penalty can be set symmetrically, i.e. at the same level, or asymmetrically at different levels. Under this simple option, the marginal strength of the incentive would not change for rewards or penalties below the cap, but would effectively be reduced to zero for capped rewards/penalties.

For example, consider the illustrative distribution of scores in Figure 7, and suppose that the marginal incentive strength for the incentive is initially set at 1bp of RoRE for each unit deviation in score, with a cap of 10bps of either rewards or penalties. Company B's score falls short of the relative benchmark by 20 points, while Company E's score exceeds it by 18. Company B's penalty and Company E's reward could both be capped at 10 bps, leaving the marginal strength unaffected for all other companies.

An alternative option to ensure that the marginal strength remains the same for all levels of performance is to adapt it such that no rewards or penalties exceed their respective caps, but that the marginal strength remains the same for all DNOs. In this illustrative example in Figure 7, the marginal strength could be halved to 0.5 bps of RoRE for each unit of deviation from the target.

Figure 7: Hypothetical distribution of company scores with relative target



Source: CEPA analysis

A zero-sum design can be combined with a cap on maximum rewards and/or penalties while still preserving the symmetry of the marginal incentive above and below the target, but only if the incentive strength is adjusted ex post for capped rewards/penalties as in the example above. Alternatively, the marginal strength of the incentive can be adjusted asymmetrically below (or above) the target to ensure a zero-sum outcome when either the cap on the maximum reward (or penalty) is binding.

These relative incentive strength design tools are summarised in Table 14.

Table 14: Relative incentive design toolkit: incentive strength tools

Incentive strength tools		
Design feature	Description	Potential use cases
Incentive strength set in relation to absolute performance (vanilla option)	Assign rewards/penalties directly in proportion to the score achieved by each DNO above/below the relevant benchmark or target.	As a starting point, this is suitable for the vast majority of performance incentives to ensure that the rewards/penalties are proportionate to DNO performance.
Capped maximum penalty and reward (symmetric or asymmetric)	Cap both the maximum penalty and the maximum reward at the same (symmetric) level or at different (asymmetric) levels.	Suitable for all incentives to avoid disproportionate impacts on returns but generally incompatible with a zero-sum design.
Incentive strength adjustment for capped rewards or penalties	Cap the maximum reward and/or penalty and adjust the marginal strength ex post to ensure it remains consistent for all DNOs. The adjustment can be applied consistently above and below the target or separately above and below it, with the latter resulting in an asymmetric marginal incentive strength.	Where there is uncertainty about the appropriate marginal strength of the incentive and Ofgem is worried about over-rewarding or over-penalising DNOs. This is compatible with a zero-sum design (if the target is set at the average score), but also with other designs.

Source: CEPA analysis

5.2. DETAILED DESIGN OF SHORTLISTED INCENTIVES

In this section, we discuss the incentives shortlisted as most suitable for a potential relative design in Chapter 4. While a comprehensive discussion of how exactly they should be designed is beyond the scope of this report, we provide an initial assessment of how they could be adapted to introduce more relative design elements.

5.2.1. Retained ED2 ODI-Fs

The following two ED2 ODI-Fs, which Ofgem has signalled the intention of retaining in ED3, achieved the highest scores across our three detailed suitability criteria for a potential relative design:

- The **Distribution System Operator (DSO) incentive**; and
- The **Time to Connect (TTC) incentive**.

Having already been designed and applied at ED2 – and, in the case of the TTC incentive, in ED1 – these two incentives already include several detailed design features which go beyond the vanilla options discussed in the toolkit tables in the previous section. Re-designing these incentives from scratch is unlikely to be desirable or practical from an implementation standpoint. These incentives may therefore be better candidates for a hybrid design than a pure relative design. As a consequence, we do not see a strong case for them being designed as zero-sum.

DSO incentive

In ED2, the DSO incentive is designed as an asymmetric, two-sided incentive with a maximum reward of +40 bps of RoRE and a maximum penalty of -20 bps. The scores used to assess DNOs against this incentive are based on two evaluation criteria, each weighted 50%: the DSO Stakeholder Satisfaction Survey and the DSO Performance Panel assessment. While the former is a quantitative metric based on stakeholder responses to specific questions, the latter is a qualitative panel assessment based on a balanced scorecard. The combined score across the two criteria is then mapped, and compared against a common absolute target set ex ante by Ofgem.

In ED3, a hybrid design could allow Ofgem to maintain an asymmetric approach with a skew towards rewards and maintain the current absolute target in place as a backstop, basing the assessment on the higher of either the current absolute target level or the average performance benchmark. This would allow for the introduction of direct competitive pressure, sharpening the incentive for DNOs to deliver against their DSO priorities, without substantial changes to other design elements of the incentive.

TTC incentive

The ED2 TTC incentive is a mechanistic ODI-F, with a symmetrical reward/penalty of +/-15 bps of RoRE. The target for the incentive is set at the same level for all DNOs; however, the assessment metric is expressed as each DNO's percent improvement over a historical benchmark, which would account for potential differences in persistent exogenous factors. TTC rewards or penalties are based on an average of two 'Time to Quote' and 'Time to Connect' metrics, which are themselves averaged over the four most recent available years of historical data. Percentage deviations exceeding a +/-20% deadband around this target value lead to rewards or penalties in proportion to the size of the deviation, with a maximum of +/-15 bps of RoRE.

This is a good example of how a 'metric tool' can be used to adjust for exogenous factors, as discussed in Section 5.1. The TTC could be designed as a relative incentive by basing the assessment on each DNO's improvement relative to that of others. As with the DSO incentive, it may be appropriate to maintain some hybrid elements in the design of the TTC, including the deadband which needs to be exceeded for rewards or penalties to apply. Again, this means that a TTC designed as a relative incentive is unlikely to also be suitable for a zero-sum design.

5.2.2. Proposed new incentives for ED3

We categorised four potential new incentives for ED3 as being most suitable candidates for a potential relative design:

- The proposed **Smaller Connections Incentive** (including LCTs); and
- Three proposed incentives discussed at higher level in the SSMC:
 - A potential **Voltage Management Incentive**;
 - A potential **Loss Optimisation Incentive**; and
 - Potential **Load-related Delivery Incentives**.

Significant uncertainty remains regarding the specific design of these new incentives. This is particularly true for the latter three, which were only discussed at a high level in the SSMC. Therefore, we do not have enough information to comment on the detailed aspects of a relative design for these incentives.

However, since these are new incentives and need to be designed from scratch, there may be a stronger case for them to follow a full relative design based on the vanilla options described in Section 5.1. This also means that these incentives would likely be suitable for a zero-sum design, which is a direct consequence of assessing DNOs based on their performance against an average benchmark and having a symmetric incentive strength above and below that benchmark.

Smaller Connections Incentive (SCI)

The current proposed design for the SCI in the SSMC is a two-sided incentive combining metrics on time-based services (such as Time to Quote and Time to Connect) with a customer satisfaction survey. These metrics will need to be defined carefully to address any concerns that Time to Quote and Time to Connect could vary for exogenous reasons across DNO areas.²⁸

²⁸ Unlike for the TTC incentive, since this is a new incentive, historical data may not be as readily available to help establish a comparable benchmark.

Since the incentive is new and historical data on performance is likely to be more limited, for ED3 this could potentially be defined as a fully relative design with zero-sum rewards:

- The benchmark could be set at the average score across all DNOs in each year.
- The incentive strength could be set symmetrically above and below the benchmark, with a cap on the maximum penalty (or reward).
- Should the cap be binding, the incentive strength could be reduced to ensure it remains constant for all DNOs and the zero-sum outcome is preserved.

5.2.3. Business Plan Incentive (BPI)

The RIIO-3 (transmission and gas distribution price control) BPI design serves as Ofgem's blueprint for the ED3 design. In RIIO-3, the BPI consists of three distinct stages which can effectively be treated as separate incentive mechanisms for the purposes of this analysis.

Stage A of the BPI assesses the completeness of business plan submissions and penalises companies which have not met a list of minimum requirements. As already discussed in Section 4.2.2, this stage is least likely to be suited to a relative design because it is aimed at ensuring that DNOs meet a minimum bar, rather than at encouraging continuous improvements.

Stage B already follows a relative design for comparatively assessed costs. The company which has submitted the most efficient costs receives the maximum reward, while the company which has submitted the least efficient costs receives the (lower) maximum penalty. All other companies receive a reward or penalty in proportion to their relative position between the efficiency score benchmark and the company which submitted the most or least efficient costs. All the potential options to change Stage B considered in the SSMC – with the exception of removing it altogether – remain compatible with a relative design.²⁹

Stage C assesses the ambition and deliverability of business plan commitments and is assessed qualitatively through a balanced scorecard. This is where there is most scope to consider introducing more explicitly relative components into the design of the ED3 BPI: Ofgem could update the balanced scorecard process for Stage C to allow a greater use of relative assessment, as described in Table 12.

Overall, we do not find a strong case for the BPI to be designed as a zero-sum incentive in ED3. The three-stage structure with different incentive design features in each stage is unlikely to lend itself well to a zero-sum design. In RIIO-3, the potential range of financial outcomes under the BPI is symmetric across the three stages, because the maximum reward equals the maximum penalty. However, it is effectively skewed towards rewards, particularly in sectors where costs tend to be assessed comparatively.³⁰ In the SSMC, Ofgem has already signalled that it is considering skewing the incentive further towards rewards, which is compatible with a relative but not with a zero-sum design.³¹

²⁹ Ofgem, 2025, ED3 Sector Specific Methodology Consultation, available [here](#). See in particular page 192.

³⁰ This is because Stage A sets a low bar for companies to avoid a penalty (since all companies should be able to meet minimum requirements), and Stage B is strongly asymmetric with a skew toward rewards for comparatively assessed costs, while other components of the incentive are symmetric. In sectors where a large proportion of costs is assessed comparatively – such as ED, under ED2 cost assessment methodology – this results in an incentive that is effectively skewed toward rewards.

³¹ Ibid., pages 192-193.

5.2.4. Totex Incentive Mechanism (TIM)

The ex-ante cost target for the TIM is set through a comparative cost benchmarking exercise. However, it is not a relative incentive as each DNO's performance is assessed on an individual basis against its own targets. It is a two-sided incentive, with a DNO being rewarded if it beat its target, i.e. underspend by achieving cost efficiencies, and penalised if it falls short of it, i.e. overspend.

The TIM could be made a relative incentive by introducing an ex-post benchmark for average cost savings versus the ex-ante target across the DNOs. In simple terms, this could be done as follows:

- In each year of the price control, the average TIM gain or loss across DNOs could be calculated.
- Each DNO's gain or loss would then be adjusted by subtracting the average value – resulting in an average adjusted gain or loss of zero.

This adjustment would result in DNOs effectively competing to find cost efficiencies, with only those able to beat the average performance against the ex-ante efficient cost benchmark receiving rewards. This may result in lower gains for DNOs if most DNOs are able to beat the ex-ante cost target that they were set, or higher gains if they are not. If TIM factors are set symmetrically for over- and under-spends for each DNO, this would also result in the TIM being designed as a zero-sum incentive.

The detailed design of any relative version of the TIM would need to address two specific issues:

- the interaction with the ratchet effect for the most efficient DNOs, and
- the role of the ex-ante benchmark in this design.

Interactions with the ratchet effect

Currently, the ex-ante cost allowance for DNOs with an efficiency score below (i.e. more efficient than) the benchmark is set at their own submitted costs, rather than the (higher) industry benchmark. This 'ratchet effect' means that the target for the TIM is different, and lower, for the DNOs that perform best in the ex-ante cost assessment. Effectively, the most efficient DNOs have their own bespoke targets, whereas all other DNOs have the same common target.

The TIM rewards or penalises DNOs based on their performance against their ex-ante cost allowance, rather than simply rewarding the DNOs with the most efficient costs. This could lead to a question about the extent to which DNOs with costs below the efficient benchmark have the same ability to find in-period efficiencies as those above the benchmark. While this is a potential concern with the current design of the TIM, it would probably be an even stronger concern under a relative design – as gains or losses under the TIM would be directly dependent on the efficiencies found by each DNO relative to those found by all other DNOs against their respective ex-ante allowances.

One option to address this question would be to only base the TIM on a relative benchmark for DNOs with submitted costs above the efficiency benchmark, i.e. exclude from it DNOs for whom the ratchet effect applies. This would make the approach equivalent to using the ex-ante cost benchmark only to identify the most efficient DNOs, and then setting the common benchmark for other DNOs ex post, based on average performance. The cost assessment process would lead to efficiency scores in the same way as it does today, but the efficient benchmark within the distribution of efficiency scores would not need to be set ex ante: it could simply result from competition between DNOs.

This may be appropriate if Ofgem believes that DNOs below the efficiency benchmark do not have the same ability to find cost efficiencies relative to their respective cost allowances as those above the benchmark.

Role of the ex-ante benchmark

A relative design for the TIM would substantially decrease the extent to which Ofgem relies on the ex-ante efficiency benchmark to set cost allowances for DNOs. The cost assessment process would still be used to ensure that DNO costs can be compared on a like-for-like basis, accounting for exogenous cost drivers. The chosen efficiency score benchmark would then be used to identify the DNOs with the most efficient costs, for which the ratchet applies. For all other DNOs, however, the ex-ante benchmark would not actually be used to set cost allowances: in practice, a relative TIM design would mean that the cost allowances are determined ex post, based on the average efficiency across all DNOs.

Ofgem could still choose to retain an ex-ante benchmark as a minimum target for catch-up efficiency and introduce it as an 'absolute backstop' of the kind discussed in Section 5.1. This would preserve a role for the ex-ante allowance as an upper bound for efficient costs, but would allow competitive pressure between DNOs to lead to lower de facto cost allowances based on average performance.

Overall, however, it is important to consider that major design changes to the TIM could significantly affect the balance of risks and rewards across the overall ED3 regulatory framework. Ofgem's appetite for major change for ED3 may be constrained by the need to deliver large investment programmes at pace and the challenges that may arise from a potential new energy crisis caused by war in the Middle East.

6. OVERALL BALANCE OF RISKS AND REWARDS

In this chapter, we take a step back from the assessment of individual incentives and consider the impact that introducing more relative and potentially zero-sum incentives may have on the balance of risks and rewards for the incentive package as a whole.

Some rewards may be skewed towards rewards or penalties, or even asymmetric, but might result in an appropriately balanced package once taken together. A comprehensive discussion of exactly what balance that package should strike falls outside the scope of this work. However, this chapter offers some insights into the role that relative incentives might play in affecting this balance.

6.1. PACKAGE-LEVEL IMPACT OF RELATIVE AND ZERO-SUM INCENTIVES

As discussed in Chapter 3, an incentive framework aiming to replicate competitive outcomes can be seen to imply that efficiently run DNOs should expect to earn their cost of capital in the long-run, with the potential to temporarily earn higher or lower returns based on their performance relative to each other.

Zero-sum incentive mechanisms produce this outcome mechanically, by adjusting returns for each incentive ex post so that the average (or median) company earns no reward or penalty. If all incentives in the ED3 regulatory framework which passed our initial scope filter criterion – i.e. which impact DNO returns – were designed as purely relative and zero-sum, the regulatory framework as a whole would also largely result in zero-sum rewards and penalties. The average DNO would then receive a reward/penalty of zero, by construction.

However, based on our assessment of individual incentives in Section 4.2, several incentives do not appear to be suited for a purely relative design once our more detailed suitability criteria are considered. Even among the eight incentives that are most suited for a high-level relative design, in Chapter 5 we found that there is often a case for introducing hybrid design elements such as absolute targets as backstops, or conditionality on improvement against past performance. These elements are generally not compatible with a zero-sum design. Therefore, even if more ED3 incentives contained relative design elements, this will likely not result in zero-sum outcomes overall. However, setting a zero-sum incentive package which results in the average DNO earning its cost of capital can be achieved without requiring every single incentive to be zero-sum.

6.2. IMPACT ON EXPECTED RETURNS

A well designed zero-sum incentive package would allow efficiently run DNOs to expect to earn rewards or penalties with equal probability. This would mimic the theoretical benchmark for quality-of-service competition set out in Section 3.1. In theory, this could ensure that the price control protects consumers while also maintaining a ‘fair bet’ for DNOs. The ‘fair bet’ principle, developed in the context of telecoms regulation, can be summarised as:

*[Allowing] firms making large and risky investments the opportunity to make a return commensurate with the level of risk incurred at the time of making the investment decision.*³²

Whether this would constitute an increase or a decrease in expected returns compared to previous price controls of course depends on whether the incentive package has previously skewed toward rewards or penalties in out-turn. If in the past the regulatory framework has been skewed towards rewards, moving to an overall zero-sum package will have the effect of lowering the expected returns of the average, efficiently run DNO.

Any such shift in calibration should be considered carefully, particularly in the context of significant delivery challenges as those expected during ED3. For example, Ofgem may be particularly concerned that reducing

³² Department for Science, Innovation and Technology, 2026, Draft Statement of Strategic Priorities for telecommunications, the management of radio spectrum, and postal services, available [here](#). See also Ofcom, 2020, Full fibre must be a fair bet, available [here](#).

expected average rewards from incentives will make it harder for DNOs to attract the investment to deliver the significant step change in investment plans that is required of them in the coming years.

In reaching a position on overall calibration of the incentive package, Ofgem should set out its rationale clearly, and be as transparent as possible about the trade-offs it faced and the decisions it made as a result. It should also explain how any decision interacts with other parts of the price control settlement, such as the cost of capital and the positioning of the cost assessment frontier.

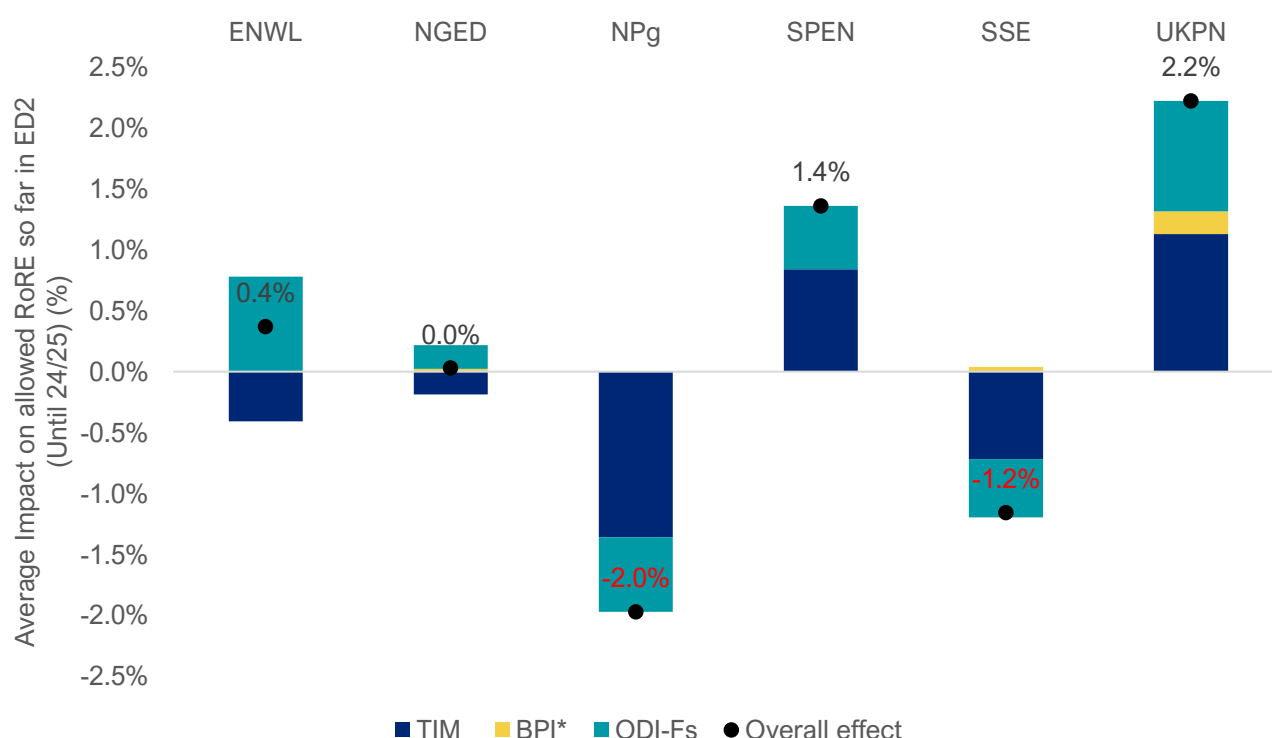
Balance of rewards and penalties in ED2

As discussed above, the impact of moving to an overall incentive package that is zero-sum will depend on the context – i.e. what has been the historical balance between regards and penalties.

Figure 8 shows the outturn yearly impact on allowed RoRE for the period for which this data is available so far in ED2, i.e. based on the average of the first two years of the price control only (2023/24 and 2024/25). As the data is only for the first two years of a five-year price control period, the chart should be read as an early provisional indication of the overall balance of the package rather than as definitive evidence of the settled long-run calibration of ED2 incentives. We focus primarily on ED2 as RIIO-ED2 was explicitly intended to reset the outputs and incentive framework from ED1, providing a better basis for comparison moving forward to ED3.

The picture so far is mixed across DNO groups. NPg and SSE are receiving net penalties overall, NGED is broadly neutral, while SPEN and UKPN are receiving net rewards. That variation is important in itself as it suggests that the package is already generating differentiated outcomes across companies, rather than delivering a uniform reward or penalty across the sector.

Figure 8: Average ED2 outturn incentive effects to date, by DNO group (% RoRE, 2023/24–2024/25)



Source: CEPA elaboration of Ofgem's 'RIIO-2 Regulatory financial performance data file: 2024-25'.³³

*To avoid distorting the comparison due to differences in profiling, BPI rewards/penalties are shown as annual rewards or penalties for ED2 based on a simple average of BPI rewards/penalties for the whole period set out in the ED2 Final Determinations.

³³ BPI data taken from Ofgem RIIO-2 ED2 final determination finance annex.

On a simple average across the six DNO groups shown in the chart, the overall effect so far is +0.14% RoRE. If we weight the average across DNO groups by the number of licensees in each group, results are skewed slightly more towards rewards. This gives an average overall effect of +0.26% RoRE across the 14 licensees. By component, this is broken down in the table below.

Table 15: Comparison of average ED2 outturn incentive effects to date by mechanism (% RoRE, 2023/24–2024/25)³⁴

Mechanism	Simple average across 6 DNO groups (% RoRE)	Licensee-weighted average across 14 licensees (% RoRE)
ODI-Fs	+0.22	+0.22
TIM	-0.12	-0.02
BPI	+0.04	+0.05
Overall	+0.14	+0.26

Note: Values may not add due to rounding.

The difference between the company-group average and the licensee-weighted average is mainly driven by the fact that UKPN's positive outturn is spread across three licensees, while the most negative company-group outturn in this dataset, NPg, is spread across two.

For comparison, in ED1, for all 14 Licensees, we observe an average of 0.46% for TIM and 2.03% for ODI-Fs over the ED1 period, which suggests a significantly higher skew towards positive rewards compared to ED2 so far.

Water sector precedent on calibrating the overall incentive package

There is precedent in the water sector for an explicit discussion of and adjustment to deliver a desired balance of rewards and penalties across the sector.

For example, in the PR24 Final Determinations Ofwat estimated that its overall incentives package would lead the median efficient firm to achieve -0.17% RoRE over PR24. Ofwat therefore recognised that the package was slightly skewed toward penalties, but considered this to result in a fair outcome overall once wider cost and finance effects are considered. This precedent is discussed in more detail in Appendix A.3.

In PR24, Ofwat also introduced the Outcomes Adjustment Mechanism (OAM) to correct for excessive skews towards rewards or penalties across the package of incentives. The OAM applies annually, separately for water and wastewater, and is triggered if the median sector benchmark for common performance incentives falls outside a ± 50 bps RoRE deadband, in which case Ofwat applies a common adjustment to companies' outcomes returns equal to the amount by which the benchmark exceeds the trigger threshold.

The OAM is the clearest example of a regulator introducing a mechanism to explicitly ensure, ex post, that the expected impact of performance incentives of returns is neutral – or at least that it does not exceed a pre-defined range around zero.

The risk of a 'doom loop'

The recent review of water sector regulation by the Independent Water Commission (the 'Cunliffe Review') highlighted that a reliance on relative benchmarking in the water sector has made it harder for companies with historically poor performance to catch up. The Cunliffe review found that Ofwat's approach had not sufficiently taken account of company-specific conditions and the realistic pace at which different firms can improve in-period.

³⁴ We have not translated these RoRE outcomes into £ impacts for consumers. Doing so would require additional assumptions on the timing of revenue adjustments, allowed revenues, and the pass-through of incentive outcomes across licensees.

It reported stakeholder concerns that poorer-performing companies may not receive sufficient funding to ‘catch up’ with higher performers, creating a potential ‘doom loop’.³⁵

In this dynamic, companies that start from a weaker position are benchmarked against stronger peers, receive lower funding or larger penalties, and are then less able to make the investments needed to improve, which in turn risks further underperformance. The review’s findings show that relative incentives can therefore still have an important role, but they need to be calibrated in a way that preserves a realistic path to catch-up, especially for historically under-performing companies. Otherwise, the package may end up locking in weak performance rather than incentivising improvement.

The Cunliffe Review is focused on the water sector, so its findings cannot be directly applied to Ofgem’s regulation of the electricity distribution sector. One core difference, for example, is that unlike the regulatory framework in recent water price controls, the ED2 framework does not seem to be consistently penalising the average DNO.

However, the fundamental risk identified in the review remains potentially relevant for Ofgem if it decides to rely more heavily on a relative incentive design within its regulatory framework. Ofgem has a wide set of tools at its disposal to tailor the overall incentive package to its priorities and to mitigate against the risk of unintended consequences. The risk of a ‘doom loop’ developing as a result of the widespread use of relative incentives should be taken into account when deciding on the specific design of any relative incentive and within the wider regulatory framework.

6.3. IMPACT ON OVERALL RISK

An overall incentives package designed to result in a ‘fair bet’ for the ED sector will need to consider not just central expectation of returns, but also the risk around that central expectation. DNOs and their investors will be particularly concerned about the potential downside risk involved, which could impact their financing costs. Should the changes to the incentive package result in a significant increase in risk for DNOs, they may therefore increase the cost of capital at a time when DNOs are required to invest in their networks at a considerably increased rate. The potential negative impact this would have on consumer bills may well outweigh any savings achieved through a recalibration of the incentive package.

DNOs may perceive relative incentives to be more risky than incentives based on absolute targets. This is because, while absolute targets are known in advance, the average performance across all DNOs is not. While this condition more closely resembles that of companies in a competitive market, this may not ultimately result in a benefit for consumers if it leads to slower delivery on investment or a higher cost of capital.

On the other hand, in some cases a relative incentive design may also act as an insurance mechanism to avoid excessive penalties for DNOs when an exogenous factor hits performance across the industry. This may be the case particularly for new incentives, for which there may be limited data on historical performance and it may be harder to confidently set absolute targets. It may also be the case for incentives which may see significant changes during ED3, with associated uncertainty, such as a re-designed TIM with significant delivery-conditionality in the context of ambitious investment plans. Introducing elements of ex-post incentive calibration based on average performance across all DNOs may reduce any perceived risk that, due to changes in design, DNOs will find it more difficult to achieve cost efficiencies overall.

In summary, the impact of introducing more relative design elements to the incentive package on DNO risk perception is uncertain and would depend on the specific list and design of relative incentives. Zero-sum incentive designs guarantee that some DNOs will always receive a penalty in a way that incentives based on absolute targets may not. Hybrid relative designs can either increase this risk – e.g. by introducing challenging minimum thresholds or further conditions to access rewards – or decrease it, for example by allowing for an asymmetric reward-penalty design.

³⁵ Independent Water Commission, 2025, Review of the Water Sector, available [here](#).

The role of the Returns Adjustment Mechanism (RAM)

Ofgem described the purpose of the RAM in these terms in ED2:

*‘to ensure the fairness of [the price control] by protecting consumers and investors against ex post overall returns [...] deviating greatly from ex ante expectations’.*³⁶

While the RAM is a mechanism explicitly designed to impact company returns, we assessed it to be out of scope for a relative incentive design. This is because the RAM is not an incentive as such, but rather operates as an ex-post adjustment mechanism to reduce the risk around company returns at price control close-out.

The RAM is a good example of a mechanism that intentionally does not replicate a competitive outcome. It establishes guardrails around DNOs’ overall RoRE performance, meaning that if returns deviate substantially from their expected baseline level, the difference is shared with consumers. The more significant the deviation from expected returns, the higher the share that consumers will absorb. These guardrails would not exist in a competitive market, where companies bear the full risk of earning returns below their cost of capital, but also capture the full benefits of earning returns above it.

Should Ofgem decide to introduce more relative design features as part of the ED3 incentive package, the RAM would likely sit outside of any relative design considerations. However, the protection that the RAM offers against the risk of extreme deviations from expected returns may help mitigate the risk of any changes to the incentive package unintentionally resulting in extreme outcomes.

³⁶ Ofgem, 2020, RIIO-ED2 Sector Specific Methodology Consultation: Annex 3 – Finance, available [here](#).

Appendix A LITERATURE REVIEW AND REGULATORY PRECEDENT

This appendix reviews issues related to relative incentive design in network regulation of costs and quality. Cost-based regulation is primarily concerned with ensuring that firms can only recover efficient costs from consumers and therefore focuses on benchmarking expenditure, allowances and efficiency. Quality-based regulation focuses on the standard of outputs delivered to customers and wider stakeholders. It links rewards or penalties to measures such as reliability, service and delivery performance. In simple terms, cost-based regulation can seek to replicate some of the competitive pressure on firms to control costs, while quality-based regulation can seek to replicate aspects of competitive pressure to improve service quality and outcomes.

The first section examines the available literature on the role of network regulation in mimicking competitive market outcomes. The next two sections then look in turn at literature on comparative cost-based regulation, and comparative quality-based regulation for individual incentives. Benchmarking costs across different companies to set ex-ante revenue allowances is a well-established form of comparative performance regulation. However, it is discussed here mainly for background purposes, since the primary focus of this report is quality rather than cost regulation. Under relative, quality-based regulation, a firm's reward or penalty on a specific quality measure depends on performance relative to peers or a comparative benchmark.

The final section considers quality-based regulation at the level of the overall incentive regime or package of incentives.

A.1. ROLE OF NETWORK REGULATION IN MIMICKING COMPETITIVE OUTCOMES

When thinking about the role of relative incentives, it is helpful to explore views on the extent to which the purpose of network regulation is to replicate competitive outcomes in the absence of direct market competition due to natural monopoly. The 2011 Ofgem Review published by the Department of Energy and Climate Change made this point directly in describing economic regulation as 'replicating competition for the monopoly networks'.³⁷

Littlechild (2010) establishes a helpful framework to unpack what this means in practice. He argues that effective competition is not only about eliminating excess profits, but also about 'discovering more efficient methods of production' and 'discovering what customers want'.³⁸ This is relevant here because it provides a broader rationale for why regulation may seek to replicate competitive outcomes: not only to constrain monopoly rents, but also to create pressure on firms to innovate, adapt and improve service over time.

Although Littlechild's discussion is primarily framed around cost-based regulation, the underlying logic also applies more broadly to the quality-based competition considered in this report. In the ED3 context, the argument for increased competitive pressure is not simply that it may prevent DNOs from earning persistent excess returns, but that it may encourage them to find better ways to deliver outputs and improve service for consumers. Relative incentives may therefore be attractive where they help mimic these dynamic benefits of competition.

At the same time, Littlechild's framework also highlights an important limitation. In competitive markets, firms can improve, catch up or ultimately be displaced. In network regulation, that process is necessarily incomplete, since DNOs do not face direct entry and exit in the same way. The case for relative incentives therefore depends not only on whether competition is desirable in principle, but also on whether the regulatory measure provides a fair and workable proxy for competitive pressure in practice.

In a competitive market, firms that improve quality can earn returns above their cost of capital for a period, while weaker firms lose market share and underperform until they catch up or exit. In regulated monopoly settings, where

³⁷ Department of Energy and Climate Change, 2011, Ofgem Review Final Report, available [here](#).

³⁸ S. Littlechild, 2010, The nature of competition and the regulatory process, Interonomics, available [here](#).

exit and entry of firms cannot perform the same disciplining role, the regulatory framework can seek to replicate these pressures. In this context, Ofcom's 'fair bet' principle is also relevant.

In summary, a regulated firm should have an ex-ante expectation of earning its cost of capital over the life of an investment, while retaining sufficient upside to justify taking risks associated with delivering that upside.³⁹

Ofgem's early statements on the RIIO framework expressed a similar logic. In a 2012 finance supporting document for RIIO-T1, Ofgem wrote that a well-calibrated price control should allow the best-performing companies to earn 'double-digit returns on (notional) equity', while downside for the worst-performing companies should be 'at or below the cost of debt'.⁴⁰ That framing may now appear dated, particularly given the later introduction of mechanisms such as the RAM, but it remains useful evidence of the philosophy on incentive design set out by Ofgem at the time.

The Department of Energy Security and Net Zero's (DESNZ) 2026 Ofgem Review has set out an updated view on the role of network regulation in delivering 'competitive outcomes'. The Review notes that, although Ofgem was originally established to protect consumers by promoting effective competition, and that monopoly network regulation still acts as a proxy for competition, government now treats competition less as an end in itself and more as one possible means of securing broader outcomes.⁴¹

Consistent with that shift, the Review proposes removing the stand-alone reference to competition from Ofgem's statutory duties so that Ofgem has greater flexibility to balance consumer protection, net zero and economic growth within a more targeted, proportionate and outcomes-based framework. This suggests that the case for relative incentives in ED3 should not be framed solely in terms of mimicking competitive market outcomes, but also in terms of whether that is an effective and proportionate way to support wider regulatory objectives, including long-term investment, service standards and consumer outcomes.

The Independent Water Commission's review of the water sector (the Cunliffe review) expresses caution about the use of relative incentives in regulation. While accepting the need for objective benchmarking to protect customers from misuse of monopoly power, it concludes that Ofwat has relied too heavily on a data-driven, econometric approach and has not given sufficient weight to company-specific conditions, supervisory engagement and expert judgement.⁴² The review also argues that the incentive landscape has become overcomplicated and that the overall scale and variability of ODI outcomes have made risks harder for companies, investors and customers to understand.

A.2. COMPARATIVE COST-BASED REGULATION

Yardstick competition is a common concept in most academic literature on cost-based regulation. This is where a regulated firm is judged against the performance of comparable firms rather than against its own realised costs. Shleifer's (1985) formulation of yardstick competition was developed mainly for cost regulation of firms that are sufficiently similar. In those circumstances, benchmarking one monopoly firm against others can mimic some of the discipline of competition and strengthen incentives for efficiency.⁴³

This logic is well-established in current UK network price controls, which rely heavily on comparative techniques to assess the level of efficient costs. In RIIO-ED2, Ofgem combined totex benchmarking with more disaggregated benchmarking and qualitative assessment as part of its cost-assessment toolkit. In RIIO-GD3, it described econometric benchmarking as its primary cost-assessment tool for gas distribution. In other words, electricity and

³⁹ Ofcom, 2013, Cost orientation review, available [here](#).

⁴⁰ Ofgem, 2012, RIIO-T1: Final proposals for National Grid electricity transmission and National Grid gas, available [here](#).

⁴¹ DESNZ, 2026, Ofgem Review: Final Report, available [here](#).

⁴² Independent Water Commission, 2025, Review of the Water Sector, available [here](#).

⁴³ Andrei Schleifer, 1985, A theory on yardstick competition, available [here](#).

gas distribution price controls already use comparative benchmarking tools to set cost allowances for network companies.

The case for comparative cost regulation in the economic literature is strongest where the task is to benchmark efficient costs across firms that are sufficiently similar and where exogenous drivers can be controlled for. It is less well-established for regulation of quality, where outputs are more multi-dimensional and comparability may be seen as less straightforward.⁴⁴ General incentive theory warns that strong incentives on measured dimensions can distort effort away from other important but harder-to-measure aspects.

A.3. QUALITY-BASED REGULATION AT THE LEVEL OF INDIVIDUAL INCENTIVES OR METRICS

One way to distinguish quality-based regulation for the purposes of our analysis is between metric-level and package-level design. At the metric level, a regulator applies a relative or comparative incentive to a specific quality measure, such as customer service, complaints, interruptions or service reliability. The general economic logic is that narrow, visible and comparable measures are the easiest place to use relative incentives because they reduce some of the information problems that arise in broader comparative design. But the same literature implies a limit, in that the more multidimensional the task, the weaker the case for aggressive relative incentives.⁴⁵

One GB precedent of a relative quality-based incentive was Ofwat's Service Incentive Mechanism (SIM)⁴⁶.

Case study: Service Incentive Mechanism (SIM)

For PR09, Ofwat implemented the SIM. The SIM allowed for comparison of companies' performance on customer service by measuring the number of customer contacts/complaints and undertaking a customer satisfaction survey.

The SIM was explicitly based on relative performance, with the best performing firm earning up to 0.5% of the allowed revenues reward, while the worst performing firm faced penalties up to -1.0% of allowed revenues. When this was applied in the reconciliation from PR14, SIM scores were averaged across the price control period. The distribution of rewards and penalties for companies were based on their scores. The worst score was set to -12% while the highest score was set to +6% of retail revenue.

It is widely accepted that the SIM strongly contributed to significant improvements in customer service in the water sector, including a 60% reduction in written complaints. The SIM was thought to simulate competitive pressures given its relative performance design by applying financial and reputational rewards based on the relative performance of companies. It also encouraged managers to look and learn about what other companies are doing and improve accordingly. There was considerable evidence that this was happening as scores bunched over time towards the frontier company.

It became less clear how rewards/penalties should be distributed when companies were all performing similarly. Ofwat mapped the lowest score to -12% and highest score to 6%. As the highest and lowest score got closer together, the gradient of the mapping became steep. This meant relatively small changes in customer satisfaction could lead to big changes in the rewards/penalties that a firm received, greatly increasing the importance of accurate measurement and adjusting for idiosyncratic shocks affecting customer satisfaction outside the company control. The SIM was then replaced from PR19 onwards.

In PR19 Ofwat moved to a more differentiated 'MeX' framework. C-MeX (Customer Measure of Experience) replaced SIM for residential customers, while D-MeX (Developer Services Measure of Experience) was introduced

⁴⁴ Ibid., page 6.

⁴⁵ Robert Gibbons and Kevin J Murphy, 1989, Relative performance evaluation for Chief Executive Officers, available [here](#).

⁴⁶ Ofwat, 2013, Service incentive mechanism (SIM) for 2015 onwards – a consultation, available [here](#).

for developer services customers.⁴⁷ The SIM was a single comparative customer-service incentive across companies. However, the current regime separates household and developer-facing experience and measures them through distinct survey-based frameworks, with D-MeX also incorporating developer-services service metrics.

Both mechanisms still generate ODI rewards and penalties, but they do so through more tailored benchmarks. D-MeX is explicitly relative to the median company score each year, so firms are rewarded or penalised according to how far above or below the median they perform. C-MeX is comparatively assessed against an external cross-sector benchmark based on the UK Customer Satisfaction Index (UKCSI) rather than a within-sector median. In that sense, both incentives remain comparative in nature, but D-MeX is more directly peer-relative, whereas C-MeX is benchmark-relative against wider customer-service performance in the economy.

In addition to C-MeX and D-MeX, in PR24, Ofwat introduced BR-MeX (Business customer and Retailer Measure of Experience). This is a quality-based performance commitment for water companies that measures the experience of non-household customers and retailers through survey evidence and market performance metrics.⁴⁸ BR-MeX is explicitly relative as rewards and penalties depend on how far a company's score is above or below the median company score in each year. BR-MeX carries symmetric financial incentives of up to $\pm 0.20\%$ RoRE with companies scoring above the sector median earning outperformance payments. Those scoring below the median incur penalties, with payments scaled according to the company's distance from the median relative to the top or bottom performer.

A.4. QUALITY-BASED REGULATION AT THE LEVEL OF THE OVERALL INCENTIVE PACKAGE

A different question is whether the incentive package in the round should be designed so that the sector faces a broadly balanced, stretched or negatively skewed set of quality incentives. This is conceptually different from an individual incentive such as the SIM. A package-level approach looks instead at the aggregate expected effect of multiple quality incentives taken together.

The economics literature here is much more limited. Yardstick competition as a concept was developed mainly for cost benchmarking, and relative performance evaluation is more common where the measured output is narrow and comparable. Once the regulator moves to a whole package of quality measures, the task becomes much more multi-dimensional. At that point, the concerns from the literature become more important, because firms differ materially, the outputs are heterogeneous, and strong comparative pressure may lead firms to focus on the measures that matter most for relative ranking, rather than on overall performance across tasks and over time. That means the literature does not provide a long list of examples for quality-based relative design at the level of the whole package.

A relevant GB regulatory example is Ofwat's assessment of its overall PR24 outcomes package. This is relevant not because it creates a broad sector-wide relative incentive regime at the package level, but because it shows a regulator calibrating and, if necessary, adjusting the incentive package in the round. In its final determinations, Ofwat stated that changes to performance commitment levels, ODI rates and associated risk protections were expected to produce an outcomes package under which the median efficient company would earn -0.17% RoRE over PR24.⁴⁹ Ofwat nonetheless considered the package to be balanced overall, once wider cost and finance effects were taken into account, and therefore consistent with a fair outcome across stakeholders.

That overall package-level approach is reinforced by Ofwat's PR24 Outcomes Adjustment Mechanism (OAM), which operates as a failsafe adjustment to outturn ODI returns where sector performance turns out materially different from expected. The OAM applies annually, separately for water and wastewater, and is triggered only where the median sector benchmark for common performance commitments and MeX falls outside a ± 50 bps RoRE

⁴⁷ Ofwat, 2019, PR19 Customer Measure of Experience (C-MeX): Policy decisions for the C-MeX shadow year 2019-2020, available [here](#).

⁴⁸ Ofwat, 2025, Business Customer and Retailer measure of experience (BR-MeX), available [here](#).

⁴⁹ Ofwat, 2025, PR24 final determinations: Delivering outcomes for customers and the environment, available [here](#).

deadband. In that case Ofwat applies a common adjustment to companies' outcomes returns equal to the amount by which the benchmark exceeds the trigger threshold.

Taken together, these features show a regulator using sector-relative outturn performance as a backstop against material miscalibration of the package as a whole. However, they do not amount to a package that is itself relative in the same sense as an individual comparative incentive, nor do they establish a broad zero-sum regime across firms. The OAM is therefore better understood as a package-level relative backstop than as a general peer-comparison mechanism of the kind seen in metric-level incentives such as D-MeX or BR-MeX.

The Cunliffe review of the water sector also highlights the risk of a 'doom loop' in heavily benchmarked regimes: lower-performing companies can be penalised and receive less funding relative to peers. This in turn reduces their ability to invest and catch up.⁵⁰ It also frames a package-level question in terms of a 'fair bet', namely whether an efficient company has a realistic chance of earning a return proportionate to the risks it faces, balancing potential rewards and penalties. Read in this way, the review does not imply that relative incentives should be abandoned altogether. Rather, it suggests that package-level relative design needs to be calibrated with realistic baselines, proportional incentive rates, and room for company-specific judgement where structural conditions differ materially.

⁵⁰ Ibid., page 183.

Appendix B DESCRIPTION OF POTENTIAL ODI-FS IN ED3

The tables below set out the individual financial Output Delivery Incentives under consideration for ED3, based on the SSMC.

Table B.1: Financial incentives expected to be retained from ED2

Incentive	Description	How incentive is measured	Incentive mechanism	ED3 SSMC Commentary
Customer Satisfaction Survey (ODI-F)	Incentivises DNOs to improve customer service quality and reward exceptional performance.	Weighted average of customer survey scores across interruptions, minor connections and general enquiries (30/50/20 weighting), based on overall satisfaction out of 10.	Financial reward/penalty Range: -0.4% to +0.4% RoRE	Amendment to ED2 – Broad Measure of Customer Service (BMCS) retained but Customer Satisfaction Survey (CSS) proposed to be restructured (including moving “connections survey” out of BMCS CSS; splitting interruptions CSS by planned/unplanned and Priority Services Register (PSR)/non-PSR; broaden survey channels).
Complaints Metric (ODI-F)	Incentivises good performance in how DNOs handle complaints.	Composite score based on unresolved complaints at day +1 and day +31, repeat complaints, and Ombudsman findings.	Financial (penalty only) Range: -0.2% to 0% RoRE	Amendment to ED2 - Potential to make reward and penalty rather than penalty only.
Time to Connect (ODI-F)	Incentivises reducing time to connect minor connections customers.	Average working days to quote and to complete minor connections.	Financial reward/penalty Range: -0.15% to +0.15% RoRE	Amendment to ED2 – core “time to quote/time to connect” approach proposed to be retained for smaller connections, but scope expanded to include small-scale LCT connections and enabling works; plus a connections CSS moved into the smaller connections incentive and a possible additional “Time to Approve” metric.
Major Connections (ODI-F)	Incentivises quality of service for major connections customers.	Primarily measured through the MCCSS overall satisfaction score (1–10), with wider annual reporting on timeliness.	Financial (penalty only) Range: -0.35% to 0% RoRE	Amendment to ED2 – Proposals to strengthen major connections incentives (e.g. Major Connections Customer Satisfaction Survey (MCCSS) penalty/reward changes; potential separate ODI-F on TTC for larger connections).

Incentive	Description	How incentive is measured	Incentive mechanism	ED3 SSMC Commentary
Consumer Vulnerability Incentive (ODI-F)	Incentivises appropriate support services for consumers in vulnerable situations.	Composite measure covering PSR Reach, social value delivered, and customer satisfaction for vulnerability services.	Financial reward/penalty Range: -0.2% to +0.2% RoRE	Amendment to ED2 – Proposed changes focused on the PSR Reach metric (e.g. considering whether it should remain financially incentivised vs become reputational/penalty-only/reweighted).
Distribution System Operation (ODI-F)	Incentivises DNOs to develop and use networks efficiently, including flexible/smart alternatives to reinforcement.	Annual score based on stakeholder survey results and performance panel assessment	Financial reward/penalty Range: -0.2% to +0.4% RoRE	Amendment to ED2 – DSO incentive needs to adapt for ED3 (though no specific DSO incentive changes proposed). Potential new incentives for voltage management and loss optimisation are flagged.
Interruptions Incentive Scheme (ODI-F)	Incentivises improving reliability and reducing outages	Frequency and duration of outages, measured through customer interruptions and customer minutes lost for interruptions of 3+ minutes.	Financial reward/penalty Range: -2.5% to +1.5% RoRE	Amendment to ED2 – gaps highlighted (e.g. no incentive for short interruptions); additional/targeted mechanisms being considered (e.g. for short interruptions; 12+ hour events; multiple unplanned interruptions).
Dig, Fix and Go (ODI-F), ENWL only	Bespoke incentive to reduce restoration time associated with unplanned interruptions / emergency street works.	Average days to restore roads/surrounds after emergency street works.	Financial reward/penalty Range: -0.2% to +0.2% RoRE Incentive rate £0.98m per average day above/below current average	Not mentioned in SSMC (assume same as ED2 for ED3)
Collaborative Streetworks (ODI-F), UKPN only	Bespoke incentive to enable UKPN participation in the Greater London Authority (GLA) collaborative streetworks programme.	Count of completed collaborative street works projects.	Financial (reward only) 0.5% ex ante regulatory equity; incentive rate £0.305m per completed project	Not mentioned in SSMC (assume same as ED2 for ED3)

Table B.2: New proposed ODIs in the ED3 SSMC

Incentive	Description	Incentive mechanism	ED3 SSMC Commentary
Smaller connections incentive, including Low Carbon Technologies (LCTs)	Incentive covering smaller connections, including small-scale LCT connections and associated enabling works, with metrics potentially varying by connection type.	Expected reward / penalty incentive, with some elements potentially reputational where targets or data are less developed.	New incentive to cover smaller LCT connections and enabling works within a single framework.
Time to Connect (TTC) for larger connections (ODI-F)	Considering introducing an ODI-F reward or penalty on TTC for larger connections in addition to other changes.	Financial reward/penalty (ODI-F) – details/segments (TBC).	New incentive (explicitly under consideration).
Long-duration unplanned interruptions (12+ hours)	Considering a specific incentive or penalty mechanism, complementary to IIS, to address long-duration unplanned interruptions.	Incentive/penalty mechanism TBC.	New incentive (explicitly under consideration).
Voltage management – new incentive for provision of flexibility through demand reduction	Proposed new incentive rewarding DSOs for providing flexibility via voltage management (temporary voltage reduction), with metrics to be set.	Reward DSOs for flexibility provision (detailed financial/reputational form not specified in the SSMC).	New incentive (explicitly proposed).
Loss optimisation – financial/reputational incentive	Consultation on whether there is a case for financial or reputational incentives to encourage active loss optimisation by DSOs, and what form these could take.	Potential financial / reputational reward (TBC).	New incentive (explicitly consulted on).
Load related delivery incentives – financial penalties for under-delivery (ODI-F)	Considering whether additional delivery incentives (e.g. financial penalties for under-delivery) are needed to support delivery performance.	Potential financial penalties (design TBC).	New incentive (explicitly being considered).
Incentive/mechanism to drive deployment of innovation that doesn't primarily benefit networks	Interest in introducing mechanisms (potentially an incentive) to drive deployment of innovations that benefit consumers/system but don't directly benefit networks.	Potential incentive mechanism (TBC).	New incentive (explicitly raised as an option).



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