

## Early ED3 proposal

Section	Submission
<i>Licensee name</i>	Northern Powergrid Northeast (plc) and Northern Powergrid Yorkshire (plc)
<i>Proposal name</i>	TIMELY ADDITION OF NETWORK CAPACITY INDICATOR (TANCI)
<i>Type of proposal (confirm all that apply)</i>	<ul style="list-style-type: none"> <li>• Delivery accountability mechanism</li> <li>• Stretching commitments</li> </ul>
<i>Proposal summary (max 200 words)</i>	<p>The joint work undertaken by NPg and UKPN on TANCI represents a strong example of a proposal that meets the criteria for BPI rewards. This new delivery mechanism:</p> <ul style="list-style-type: none"> <li>a) supports decarbonisation and the wider energy system transformation in the face of genuine uncertainty;</li> <li>b) holds DNOs to account for timely delivery of capacity; and</li> <li>c) protects customers from the risks of substantial non-delivery.</li> </ul> <p>Our proposal assures delivery via a combination of guardrails and flexible ex ante allowances that would enable companies to optimise output delivery, respond to real-world conditions and maintain cost efficiency as a central goal in the journey to Net Zero.</p> <p>DNOs submit plans to release capacity, Ofgem translates that into TANCI points (calibrated measure of net capacity released by an asset intervention) which are made consistent with final allowances. DNOs are held to deliver the aggregate TANCI target in period via:</p> <ul style="list-style-type: none"> <li>a) Annual monitoring of TANCI points delivered.</li> <li>b) Clawback at close out for under-delivery outside of a deadband.<sup>1</sup></li> <li>c) Rewards/penalties for over/under-delivery outside of a pre-defined deadband.</li> </ul>
<i>Which ED3 outcomes does the proposal support? (confirm all that apply)</i>	Investing for the energy transition
<i>Which Consumer Interest Pillars does the proposal support? (confirm all that apply)</i>	Low cost transition
<i>Summary of key reason(s)/driver(s) for the proposal (max 200 words)</i>	<p>The most pressing challenge for Ofgem and DNOs during ED3 will be securing the investment required to enable proactive decarbonisation and deliver the energy system transformation.</p> <p>TANCI recognises that there is genuine uncertainty of the location, scale and timing requirement of additional capacity ahead of need and encourages companies to build the network out in a sensible way in</p>

<sup>1</sup> Clawback = (TANCI target for all interventions – actual TANCI as measured) x unit cost of TANCI, where the Unit cost of deliverable = Reinforcement allowances / TANCI target

	<p>response to natural developments driven by changes in customer and commercial needs.</p> <p>The resource burden is low, as Tanci does the leg work, and DNOs can adapt in period as forecasts change, whilst still on the hook to deliver the expected level of capacity so customers benefit from efficient and timely grid expansion and an efficient pathway to net zero.</p> <p>The delivery assurance Tanci provides enables the use of fungible ex ante allowances and allows flexibility across asset classes, enabling DNOs to adapt to customer needs and changes on the network, whilst promoting efficiency and encouraging synergies.</p>
<p><i>Summary of supporting evidence (Examples could include references to sector specific intelligence, innovation projects, ISG engagement, wider consumer research, endorsement from third parties) (max 200 words)</i></p>	<p>The scale of the customer benefits associated with the transition has been highlighted by the National Infrastructure Commission, Government and Ofgem themselves.</p> <p>This mix of the delivery mechanism, incentive and fungible allowances meets the NIC recommendation 8 to set sufficient allowances upfront to enable the lowest cost of investment over the longer term, with limited use of reopeners. It enables DNOs to adapt to network needs quickly without triggering adaptability mechanisms with every change in customer behaviour, invest in an efficient manner and prioritise accordingly. Without Tanci, companies will be tied down to invest in areas that move down the priority list to avoid regulatory punishment, with the lengthy regulatory approval process blocking investment where it is needed sooner.</p> <p>Tanci also meets the NIC recommendation 7, for funding mechanisms and incentives to deliver Ofgem's net zero and growth duties. It gives companies the commercial and operational freedom to get things done, which will encourage the supply chain to expand to meet the investment level and allow business to connect to the network and enable growth and job creation. Volume drivers will not achieve this – as companies will only invest to the level where the marginal benefit equals the marginal cost.</p>
<p><i>Summary of potential benefits (max 200 words)</i></p>	<p>Delivery of capacity is assured and incentivised via a capacity released measure that can be aligned to allowances, enabling Ofgem to monitor whether DNOs deliver the overall capacity that they are funded to provide in a timely and efficient manner.</p> <p>The measure is quantifiable and can be measured consistently, covering the majority of load<sup>2</sup>, allowing tradability across solutions, and allows flexibility services to be appropriately valued to encourage efficient choices.</p> <p>It works interactively with NARMS so as to not double-count, and with fungible allowances across load and non-load incentivising companies to find synergies regardless of the investment driver.</p> <p>Tanci allows the use of asset normalisation and prioritisation factors,<sup>3</sup> to prevent companies from substituting costly work for cheaper work during</p>

<sup>2</sup> The scope of Tanci should include Primary reinforcement (CV1), Secondary reinforcement (CV2), Fault level reinforcement (CV3), Connections inside the price control (DUoS funded only, C2). It should exclude LV services, and large, discrete projects above £25m.

<sup>3</sup> For example, Tanci Point = Net Capacity Released (MVA) x Asset Normalisation Factor x Prioritisation Factor.

	delivery, and ensures prioritisation of actual capacity requirements and alignment to (t)RESP forecast.
<i>Where the proposal relates to a new or enhanced service or to stretching commitments, explain why the proposal is not already business as usual or incentivised either through the existing RIIO-ED2 framework or under ED3 proposals that we are consulting on (max 200 words)</i>	<p>There is currently no incentive on the timely delivery of capacity ahead of need; only funding arrangements that limit investment to LCT take up as it materialises.</p> <p>Our proposal is built on new method for measuring capacity released across all reinforcement, giving a multi-asset load measure that captures the customer benefit.</p> <p>TANCI introduces a new incentive to drive proactive investment, encouraging DNOs to create capacity as quickly and efficiently as possible. Calibration can be undertaken using a well-evidenced baseline level of delivery against which step changes can be assessed, with:</p> <ul style="list-style-type: none"> <li>a) Annual targets that progressively build challenge, encouraging early delivery despite the greater difficulty for a company to step up delivery in earlier years of the period, compared to latter years, whilst continuing to incentivise delivery over the full period.</li> <li>b) Rewards for over-performance above baseline, and penalties for significant under-performance, in addition to whole-period clawback of allowances for non-delivery.</li> <li>c) Penalties for particularly serious delays (including severe stop/start capex cycles), and/or serious under-delivery across the whole period below the achievable baseline.</li> </ul>
<i>Where the proposal relates to a new or enhanced service, explain why DNOs are best placed to undertake the activity described under the proposal (max 200 words)</i>	n/a

## Appendix 1. Tanci clawback mechanism

### Metric Definition

1. A Tanci “point” is a calibrated measure of the net capacity released by an asset intervention, as per the formula below.

$$Tanci\ point = Net\ Capacity\ Released\ (MVA)$$

2. The Tanci calibration allows the potential use of an asset normalisation factor and prioritisation factor. This is shown in the formula below and factors explained overleaf.

$$Tanci\ point = Net\ Capacity\ Released\ (MVA) \times Asset\ Normalisation\ Factor \times Prioritisation\ Factor$$

### Methodology

3. At plan submission the DNOs will calculate the Tanci points from their planned interventions at each asset class and by delivery year. The DNOs will then be held to account to deliver these against their plan but have the fungibility to adjust their plans to deliver different asset interventions. But crucially still meeting their overall Tanci target at a licensee level.
4. The proposed approach would be similar to NARMs:
  - a. An ex-ante allowance would be set and coupled with an aggregated target for Tanci (sum of the Tanci points).
  - b. Ongoing delivery would be measured through annual reporting, for comparison to Tanci target.
  - c. There could be clawback of allowances for under-delivery at the end of five years, if delivery strayed outside a deadband range.

### Scope

5. The scope of Tanci should include the following, with reference to the existing BPDT tables:
  - a. Primary reinforcement (CV1)
  - b. Secondary reinforcement (CV2)
  - c. Fault level reinforcement (CV3)
  - d. Connections inside the price control (only DUoS funded part of C2)
6. The measure could also include capacity released from asset replacement activity (CV7).
7. Specific exclusions are:
  - a. Low voltage services. Propose to keep as a volume driver (part of CV2). Whilst the majority of LV mains reinforcement will sit under the general Tanci target, a small proportion may be associated with LV Services programmes, and as such would sit outside Tanci.
  - b. High value projects >£25m. Propose to be project specific PCDs (CV23-25).
  - c. Diversions (CV5-CV6).

### Asset classes for Tanci

8. There is value in attributing the following asset classes against Tanci.
  - a. Pole and ground mounted distribution transformers.

- b. EHV and 132kV transformers.
- c. LV, HV, EHV and 132kV circuits (both UG and OHL).
- d. LV boards.
- e. HV, EHV and 132kV circuit breakers.
- f. Voltage control apparatus.
- g. Customer flexibility.
- h. Innovative solutions.

#### **Clawback for under-delivery**

9. If a DNO falls short of its deliverable, a pre-set formula could be used for any clawback. Like NARMS, this could be based on a notional unit cost for the Tanci target:

$$\text{Clawback} = (\text{Tanci target for all interventions} - \text{actual Tanci as measured}) \times \text{unit cost of Tanci}$$

Where:

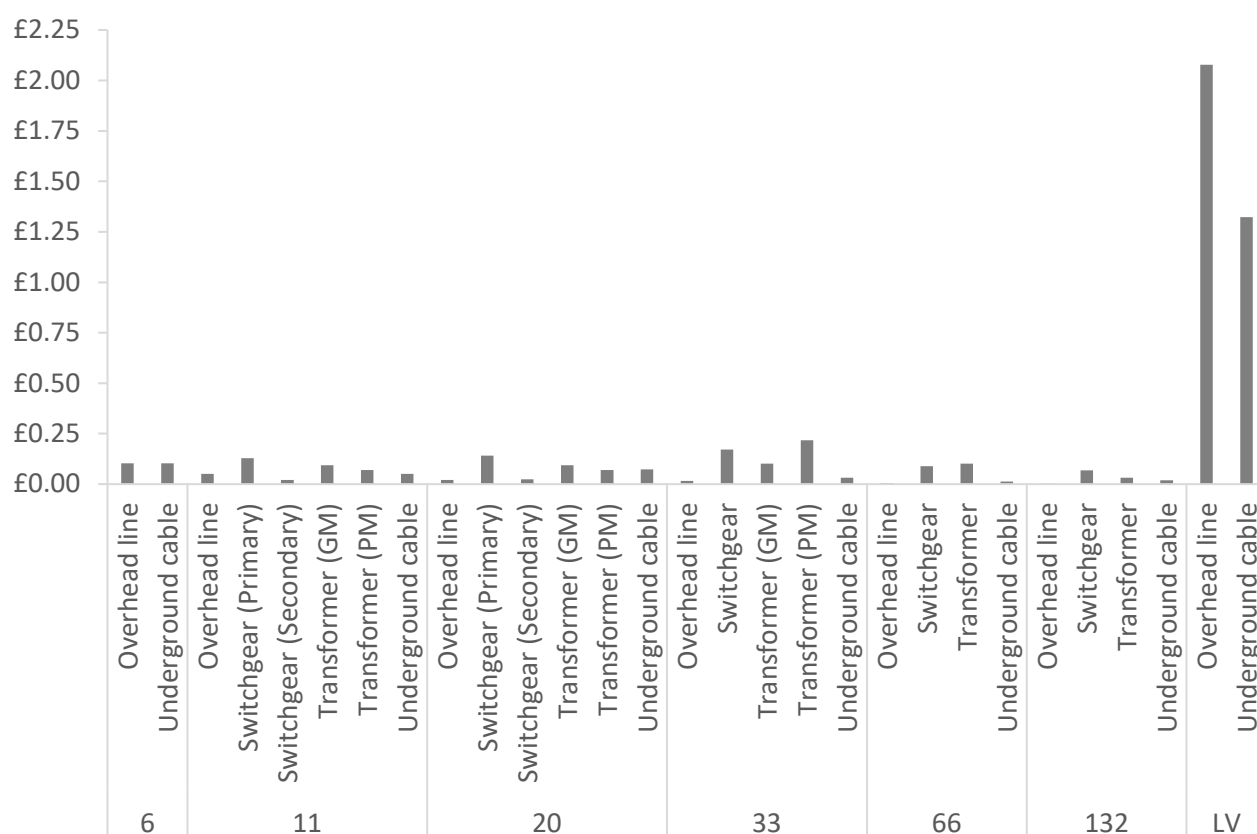
$$\text{Unit cost of Tanci} = \frac{\text{LRE allowances}}{\text{Tanci target}}$$

10. The Tanci target could also be set with a deadband, effectively defining a range for the licensee to target, rather than a fixed value, recognising the operational difficulty of hitting a very specific number through a programme with large numbers of asset interventions.

#### **Tanci point calculation factors**

##### *Asset Nominalisation Factor*

11. There is a wide range of cost per unit of capacity released across the various voltages and asset classes, therefore the points are calibrated by unit costs to normalise the points and prevent companies from committing to more costly projects in plans but substituting cheaper work during delivery. Potential normalisation factors shown in Chart 1 and have been derived using recent BPDTs across all DNOs supplemented with NPg data.
12. This analysis shows that £1m investment releases just 0.48MVA for a LV OHL upgrade but this increases to 466MVA for 132kV re-stringing. Therefore, all other assets can be normalised using this as a baseline as shown in Figure A1 below.

**Figure A1: The cost range across asset classes and voltages for realising capacity (£m/MVA)<sup>4</sup>****Prioritisation Factor**

13. TNCI also ensures prioritisation of actual capacity requirements and alignment with the (t)RESP forecast. In calibrating the TNCI points, Ofgem can incentivise sensible prioritisation of investment to ensure that both actual and forecast requirements are considered in delivery. For example, a tiered approach can be implemented with:

- a. Higher points for investment that is required in the period;
- b. Medium points for investment needed in the next price control and/or included in the (t)RESP forecast; and
- c. Lower points for investment projected in ED5 and beyond.

**Technical rulebook**

14. The calculation of net capacity released from replacing an existing transformer with a larger one is the benchmark for which other more complex interventions will be normalised to. This enables TNCI points to be calculated across a wider range of interventions. Any ratings calculation should be standard nameplate or datasheet values to British Standard or ENA environmental conditions.

**Transformer replacement (benchmark)**

$$\text{New capacity released} = \text{New nameplate rating} - \text{Old nameplate rating}$$

**Circuit replacements**

<sup>4</sup> This data set is a combination of all DNO BPDT and NPg data.

15. It is relatively straight forward to calculate the capacity released of a new circuit as the new conductor is known, however the replacement of an existing circuit is more difficult to model. This is especially true for secondary circuits as they are seldom a homogenous rating across their length and their demand is usually distributed – this means that calculating the existing rating or utilisation of these assets is extremely difficult and rules out using LIs for this purpose.
16. As the Tanci metric will be used across thousands of asset interventions the existing rating of the circuit being replaced will regress to the mean. This means we can use a DNO's asset class circuit population's average rating as the basis for calculating the capacity released against the new replacement cable rating which is well known and usually a standard single value.
17. Using both of NPg license areas the entire existing secondary circuit population has been analysed and average ratings have been calculated against the modern equivalent. This is shown in table 1 below and could be used by other DNOs or alternatively a similar analysis conducted by each DNO.

**Table A1: Typical capacity released when replacing an existing circuit by type**

Circuit type	Average network rating (NPg existing network analysis)	Typical new circuit rating (NPg standard conductor type)	Capacity released by replacing a typical circuit
LV UG	0.19MVA	0.3MVA (300mm <sup>2</sup> Al Wf)	0.11MVA
LV OHL	0.14MVA	0.21MVA (120mm <sup>2</sup> Al ABC)	0.07MVA
11kV UG	6.1MVA	8.8MVA (300mm <sup>2</sup> Al Triplex)	2.7MVA
11kV OHL	4.3MVA	7.0MVA (3x100mm <sup>2</sup> AAAC 65°C)	2.7MVA
20kV UG	10.4MVA	12.3MVA (185mm <sup>2</sup> Al Triplex)	1.9MVA
20kV OHL	6.2MVA	12.7MVA (3x100mm <sup>2</sup> AAAC 65°C)	6.5MVA
EHV & 132kV	Further analysis required		

18. A separate factor also needs considering which is circuit length. We do not believe that the incentive should value the aggregate of many small length replacements differently to one long section. Therefore we propose unitising capacity on kilometre sections (common with both manufacturing datasheets and Ofgem reporting).
19. It is recognised the existing average rating will slowly tend towards the standard replacement rating as the network is upgraded. However as this is only <1% per year, we proposed the average existing values are revised for each price control period.

### Voltage interventions

20. Whilst the total volume of interventions which release solely voltage headroom will be low compared with thermal headroom intervention they can still be considered within TANCI. This can be calculated using a derivation of the following:  $S = (V_1^2 - V_2^2)/Z$  to find the equivalent thermal capacity released by implementing a voltage control intervention.

$$\text{Thermal capacity released } \Delta S = \frac{V_1^2 - V_2^2}{Z}$$

Where:

$V$  = voltage

$Z$  = impedance

### Switchgear replacement

21. Switchgear will typically have two ratings, firstly its adiabatic short term fault current rating and secondly its normal continuous rating. Whilst the two are intrinsically linked the use of fault rating unnecessarily skews the TANCI metric and is open to temporal variables. Therefore, to avoid this complexity and be consistent with other asset interventions the switchgear's nominal continuous should be used. This replacement should be by switchgear unit (i.e. by circuit breaker), where additional new circuit breakers added during a replacement are duly credited with TANCI points.

### Customer flexibility

22. Customer flexibility can also be attributed with TANCI points. As customer flexibility is mainly used for the deferment of traditional interventions, it is proposed that this is the only use case whereby TANCI points are attributed by the pro-rata financial deferment value of the counterfactual reinforcement cost and net capacity released. This can be calculated using the CEM tool and net capacity released of the counterfactual reinforcement project.

### Innovative solutions

23. Any innovative solutions would need their TANCI points calculating within the general engineering principles set out above but justified either with a standalone EJP as part of the price control submission, or as part of ED3 annual reporting requirements.



## Appendix 2. Tanci incentive calibration

24. We are developing a methodology for incentivising an increase in capacity delivery that is designed as a package alongside the Tanci calibration and clawback method, and fungible, ex ante allowances. Together, the incentive and funding package:
  - a. Drives the timely release of capacity for customers and encourages companies to ramp up delivery quickly in the period; and
  - b. Ensures investment is secured efficiently, customers benefit from resilient, future-proofed networks, society is able to decarbonise, and regional growth is boosted.
25. There are various calibration methods that we are exploring to define what constitutes reward-worthy performance and what level of under-delivery should trigger penalties. The key steps are:
  - a. Step 1. Define an ED3 starting point for the incentive
  - b. Step 2. Derive reward and maximum reward thresholds
  - c. Step 3. Derive penalty threshold
  - d. Step 4. Derive the maximum penalty
  - e. Step 5. Convert £m values into Tanci points (if required)
  - f. Step 6. Calculate Tanci incentive rates
26. The proposed package, if taken up as a whole, retains powerful efficiency incentives:
  - a. Expressing the incentive in Tanci points will encourage companies to focus on efficient, necessary projects and avoids incentives to spend inefficiently simply to increase delivery volumes.
  - b. Fungible, ex ante allowances and tradability across all assets, supported by the asset normalisation and prioritisation factors, promote efficient investment decision based on real-world needs. Ringfencing allowances undermines this and risks inefficiency, higher costs for customers, and missed opportunities to deliver the right outputs for customers.
  - c. The existing totex efficiency incentive would continue to act strongly on minimisation of unit costs of delivery.
27. The calibration methods are based on strong delivery capacity, bolstering the ‘timeliness’ element of Tanci with ambitious performance earning rewards. The incentive is designed to encourage DNOs to increase investment early in the price control period, where ramp-up is most challenging, as the approach penalises the sharp stop/start delivery cycles seen at previous price control transitions.
28. The incentive could be applied annually with performance assessed within each year, or part of the incentive strength could assess performance on a period basis, e.g. enabling over-achievement in the final year to offset under-achievement in an earlier year. This would retain the ‘timeliness’ incentive for a company whose delivery is running outside of the annualised incentive band, and protect from annual shocks in market availability; the latter likely being a key consideration in ensuring targets remain achievable.<sup>5</sup>

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<sup>5</sup> We are also considering how connections outside of price control should and can interact with this incentive, as changes to this pipeline will impact delivery of capacity that is within the price control and therefore what step up in investment can be realistically achieved. Further analysis of the impact of connections inside the price control period and the calibration of the penalty threshold are also being considered further where e.g. a small number of schemes could drop out of the pipeline driven by variables outside a DNO’s control (such as planning permission).

**METHODOLOGY OPTION: HISTORICAL NETWORK INVESTMENT GROWTH RATES**

- **Step 1. Define an ED3 starting point for the incentive**
- **Step 2. Derive reward and maximum reward thresholds**
- **Step 3. Derive penalty threshold**
- **Step 4. Derive the maximum penalty**
- **Step 5. Convert £m values into Tanci points**
- **Step 6. Calculate Tanci incentive rates**

29. Below we set out details of how each of these steps could be calibrated and how we have applied a methodology to network investment to calibrate the Tanci incentive, which is supported by an illustrative example.
30. This incentive calibration uses historical benchmarks of network investment growth to define what constitutes reward-worthy performance and what level of under-delivery should trigger penalties.
31. These network investment benchmarks would then be translated into associated delivery of capacity (Tanci points).
32. This calibration method is based on absolute growth in delivery capacity, meaning only objectively strong performance earn rewards. This is reasonable.
- a. If the settlement does not require growth that merits reward, no reward would be earned.
  - b. If allowances require ambitious growth relative to historical levels, companies delivering this would be rewarded.
  - c. In both cases, the approach penalises the sharp stop/start delivery cycles seen at previous price control transitions.

**Step 1. Define an ED3 starting point for the incentive****In short:**

33. A clear and objective baseline is required to assess future increases or reductions in delivery. To avoid distortions in the final years of ED2, the starting point should not rely on DNO forecasts or late-period expenditure. Instead, the baseline should be derived from the following on a licensee basis:
- a. Remaining ED2 baseline allowances after two years, evenly profiled across the final three years.
34. This avoids behavioural distortions, reinforces efficient use of ED2 allowances, and excludes non-baseline funding that could otherwise weaken incentives.

**In detail:**

35. Ofgem must first establish a starting point for the level of network investment that DNOs can reasonably be expected to be established as delivering at the very outset of the ED3 period, i.e. at the very end of the ED2 period.
36. This then provides a baseline against which to judge increases (and reductions) in delivery performance.
37. There are a number of potential ways to define this – but the chosen option should:
- a. Be objective, minimising the use of any subjective assessments; and

- b. Avoid incentives that could distort DNO decisions in the remaining years of the ED2 period.
- 38. Any calibration of the start point that uses DNO forecasts would perform poorly on objectivity, while any calibration that uses DNO expenditure in the last year or two of the price control period would directly distort the incentives the DNO faces in the remaining years of ED2.
- 39. We therefore propose a methodology which uses as its starting point the:
  - a. Remaining ED2 baseline allowances after 2 years of the price control, profiled equally across the remaining 3 years of the ED2 period.
- 40. This starting point would:
  - a. avoid any reliance on DNO forecasts or expenditure levels for the closing years of the ED2 period, hence avoiding any risk of distortion of expenditure profiles or forecasting behaviour;
  - b. reinforce the incentives for DNOs to at least utilise their ED2 allowances, since this will help build starting point delivery capacity that the ED3 incentive will assume they have; and
  - c. exclude additional allowances beyond baseline, to avoid any disincentive for DNOs to access these in the remaining years of the ED2 period.

## **Step 2. Derive reward and maximum reward thresholds**

### **In short:**

- 41. Reward thresholds should reflect historically evidenced improvements in network investment. Benchmarking historic 5-year growth rates suggests:
  - a. Reward threshold: upper quartile growth rate of 4.3% p.a., meaning rewards begin only when performance is at least equal to the historical top 25%.
  - b. Maximum reward: 90th percentile growth rate of 9.7% p.a., representing genuinely exceptional delivery.
- 42. Our recommendation is that the maximum reward follows a front-loaded profile that expands reward potential in Year 1. This stretching target encourages early ramp-up and mitigates the industry-wide trend of an underspend in Year 1.

### **In detail:**

- 43. To derive well-evidenced reward thresholds, we have benchmarked the increases in network investment that companies have achieved historically. It is reasonable to only give rewards for a step up in delivery that demonstrates good performance relative to these historical benchmarks, which can be used to set the targets that are:
  - a. a level of investment increase at which a company is performing well and should start to earn rewards; and
  - b. a level of increase that represents outstanding performance and merits a full reward.
- 44. Our proposal would involve Ofgem taking the upper quartile 5-year investment growth rate<sup>6</sup>, which gives a reward threshold of 4.3% per annum. This benchmark level of performance means that DNOs

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<sup>6</sup> 5-year growth rate is calculated using all possible 5 year periods between 2010/11 and 2024/25, pooled across all DNOs.

would only begin to enter reward territory once they enter the top 25% of the historical dataset, for 5-year periods since the DPCR5 price control period onwards.

45. Then to set the maximum reward for outstanding delivery, Ofgem would take a much harder to achieve benchmark from the same historical sample. Our proposal involves using the 90<sup>th</sup> percentile 5-year growth rate of 9.7% per annum.
46. To maintain a constant incentive band, the benchmark can be reprofiled to expand the scope for rewards in Year 1 with a higher growth rate, to then allow the maximum reward to follow the reward threshold in parallel with a lower growth rate (for example, 24% per annum in Year 1, then 4% per annum thereafter).
47. The maximum reward in Year 1 of this example is challenging, however it drives ambition and the larger scope for reward provides a strong incentive to ramp up delivery and avoid the underspend in Year 1 which does occur on average across the industry.
48. In assessing the appropriate reprofiling, Ofgem must consider that the extent to which a higher maximum reward in Year 1 is achievable and realistic and is impacted by the timing of its own decision making on policy decisions.

### **Step 3. Derive penalty threshold**

#### **In short:**

49. Just as strong performance should be rewarded, material under-delivery should be penalised. Historical evidence shows a significant drop in investment at the start of price control periods.
50. Using the upper quartile Year-1 underspend of 16.7% provides a robust penalty threshold, with subsequent years following a modest growth profile (e.g., 5% p.a.).

#### **In detail:**

51. As it is reasonable to reward a strong step up in delivery that drives growth, we believe it is also reasonable to penalise companies that significantly slow delivery and under-deliver for customers.
52. Ofgem can use historical benchmarks to evidence the drop in network investment that tends to happen on transition from one price control period to another to define the threshold at which penalties should be implemented for slow and under-delivery. In doing so, Ofgem should consider the extent to which companies are competing for similar resources, and the real challenges we, as an industry, will likely face.
53. Similar to setting the reward threshold, Ofgem could take the upper quartile underspend in Year 1 of the past two price control periods of 16.7%, to give a reasonable, well-evidenced point at which penalties begin to apply. To mirror the reward threshold, the penalty threshold thereafter can be set with growth rates of 5% per annum in our example.

### **Step 4. Derive the maximum penalty**

#### **In short:**

54. The maximum penalty is determined by the incentive rate and the proposed RORE exposure (-75bps). A symmetrical structure mirrors the reward band, scaled to reflect the difference between maximum reward and penalty exposures. In the illustrative example, this results in:
  - a. 34% step-down in Year 1; and
  - b. 7% p.a. growth thereafter.

55. This ensures a consistent incentive rate across both reward and penalty territories.

**In detail:**

56. Having set the penalty threshold, it is then possible to define the maximum penalty level using the incentive rate that is defined by the reward element of the incentive, and the total RORE exposure to penalty (which we have proposed as -0.75 basis points). These two taken together identify the point at which the full penalty exposure will be reached.

57. In graphical terms, this is equivalent to defining a symmetrical incentive:

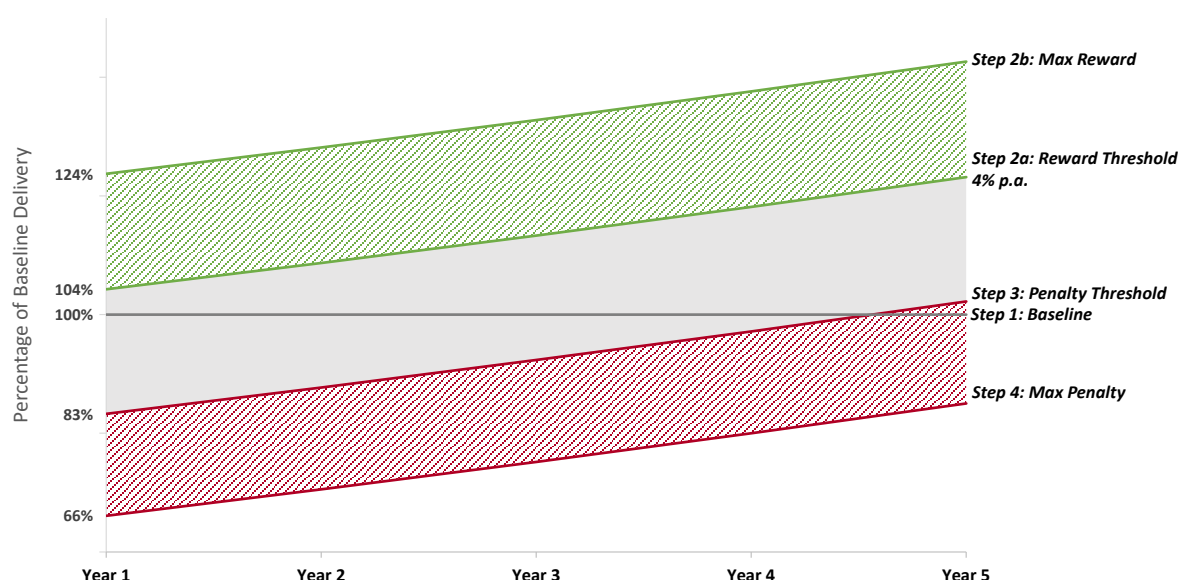
- a. Creating a mirror image, in penalty territory, of the amount of investment that lies between the reward threshold and maximum reward level; and
- b. scaling the width of the penalty band down slightly, to reflect any difference in RORE basis points between the maximum penalty exposure than reward exposure, using the ratio of the maximum penalty to the maximum reward.

58. Calibrating the penalty band in this way means that the incentive rate is constant, both in reward territory and in penalty territory.

59. In our illustrative example, and with an incentive strength of +85bps to -75bps of RORE, this would give a maximum penalty of 34% step-down in Year 1, and growth of 7% per annum thereafter to mirror the penalty threshold.

60. Together steps 1-4 give the below under our illustrative example. In the case of under-delivery, the penalties are applied in addition to the clawback of allowances where a company falls short of meeting its TANCi deliverable (see Annex 1, Clawback for under-delivery).

**Figure A2. Illustrative reward and penalty schedule with consistent incentive bands**



**Step 5. Convert £m values into TANCi points**

61. This step is vital for ensuring that the incentive to deliver increases in network expenditure is focussed on the timely delivery of increases in network capacity where there the network and customer benefits are strongest.

62. If this step is not taken, this incentive would encourage companies to increase expenditure, or delivery pipeline, without regard to how capacity addition in different locations are prioritised.

63. Converting the step up in investment to TANJI points would mean that efficiency would still be incentivised, while incentivising increases in delivery of network capacity. The link to the TANJI point calibration, built with guardrails such as asset normalisation and prioritisation factors, also encourages companies to ramp up delivery in a way that prioritises customer needs.
64. We are continuing to develop this step of the proposal – which will be straightforward to complete once sufficient data is available on the relationship between expenditure and TANJI points.

**Step 6. Calculate TANJI incentive rates**

65. Ofgem can then use the chosen incentive exposure, converted from RORE to £m, to calculate the TANJI incentive rates using the results of the above steps, giving an incentive rate per TANJI point. And as noted, part of the incentive strength could be used to assess performance on a full period basis, which in practice could mean reducing the annual incentive rate, with the differential rate applied to delivery across the five years. Doing so would continue to incentivise delivery across the period (in addition to the risk of clawback), allowing DNOs to manage some delivery challenges whilst recognising the progressively challenging thresholds.