

#### NATS En-route plc (NERL) Price Determination: Submission by ENA in response to the CMA's Provisional Findings

### 1 Executive Summary

- 1.1 Energy Networks Association (**ENA**) has serious concerns with the CMA's approach in the Provisional Findings<sup>1</sup> to establishing the Total Market Return (**TMR**) range. The CMA has made a number of errors in developing its TMR range, including relying on methodologies the Office of National Statistics (**ONS**) considers contain errors and are not suitable for official uses. As a result, the TMR has been significantly underestimated by the CMA, resulting in the cost of equity being too low.
- 1.2 We set out our most significant concerns with the CMA's approach below. In summary:
  - The CMA has introduced a downwards biased methodology for estimating the TMR. All else held constant this will result in a cost of equity allowance that is too low which would jeopardise – or indeed stymie – innovation and investment. In contrast to the CMA's approach, any changes to the methodology for estimating the TMR must be based on the most robust evidence available and introduced with caution. Further, where changes are as significant as those proposed by in the Provisional Findings, they should be implemented gradually over successive price controls.
  - The CMA has made errors in its approach to deflating nominal TMR:
    - The CMA has not chosen the most robust historical inflation measure available but, instead, has selected a measure that the ONS considers to be unsuitable for official uses, contains errors and will be updated by ONS.
    - The CMA has not followed its own approach of minimising the risk of error in setting its TMR range and has not applied its own cross-check correctly.
    - The CMA has overstated the increase in the formula effect in 2010 and further over-stated the consequential increase in the gap between the retail prices index (**RPI**) and consumer prices index (**CPI**) since 2010.
  - The CMA has failed to recognise that investors will use a discount rate at least as high as the historical arithmetic average when taking capital budgeting decisions.
  - The CMA has relied on data sets and time periods that result in a downwards biased view of nominal historic average returns.
- 1.3 These points are set out more fully below and are supported by a number of documents that we have previously shared with CMA, such as the National Grid TMR Report<sup>2</sup> and a paper prepared by Professor Schaefer.<sup>3</sup> We additionally annex one new document to our submission, supporting our evidence that the CMA has failed to recognise that

<sup>&</sup>lt;sup>1</sup> Competition and Markets Authority (2020), '*NATS (En Route) Plc /CAA Regulatory Appeal: Provisional findings report*', 24 March (**Provisional Findings**).

<sup>&</sup>lt;sup>2</sup> National Grid, 'Total Market Return, The consistency of long-run CPI and RPI inflation series in the UK, and their relative suitability for use in calculating the actual historic long-run average equity market return in the UK on a 'real' basis' (National Grid TMR Report). Available at: <u>https://www.nationalgridet.com/planning-together-riio/our-riio-2-business-plan-2021-2026/finance</u>. Provided to CMA 7 February 2020.

<sup>&</sup>lt;sup>3</sup> Oxera (2020), *Deriving unbiased discount rates from historical returns*, which incorporated Professor Stephen M Schaefer, *Using Average Historical Rates of Return to set Discount Rates* (Oxera and Schaefer 2020 Reports). These papers were submitted by ENA to the CMA on 14 February 2020.



investors will use a discount rate at least as high as the historical arithmetic average when taking capital budgeting.<sup>4</sup>

# 2 The CMA has introduced an unreliable methodology for estimating the TMR that will put incentives to invest at risk

- 2.1 The CMA has provisionally made a number of changes to setting the cost of equity for NERL: the adoption of an alternative inflation series, the averaging of returns, and laying aside the principle of 'aiming up' in the cost of capital range (at least in the context of RP3). These are largely unanticipated changes resulting from new methodologies rather than any changes in the underlying data. Together, these changes would reduce the cost of equity by more than 100 basis points (**bps**).
- 2.2 ENA strongly disagrees with CMA's approach to establishing the provisional TMR range of 5% to 6% (RPI real). ENA has identified several issues with the quality of data sets which the CMA has used when estimating the TMR. The approach to TMR in the Provisional Findings relies on the adoption of an alternative inflation series which the ONS considers to be unreliable and is consequently developing a new set of modelled indices, which are expected by the end of 2020.<sup>5</sup> In these circumstances, the CMA cannot be sufficiently confident of the quality of the alternative inflation series to be able to rely on it.
- 2.3 The approach to TMR also fails to recognise that investors will use a discount rate at least as high as the historical arithmetic average when taking capital budgeting decision. Additionally, the CMA's approach to averaging the historical data means that even the top end of the provisional TMR range is an underestimate of the rate of return that will be used in investment appraisals.
- 2.4 As a result of these errors, the TMR has been significantly underestimated by the CMA resulting in the cost of equity being set too low by at least 100 basis points.
- 2.5 The CMA's final determination is likely to set a precedent which regulators will refer to when reaching their own decisions, including Ofgem for the RIIO-2 price controls. It is therefore essential that, when faced with choices regarding methodology and data sources, the CMA proceeds with appropriate caution to minimise the risk of error by fully considering the strength and robustness of the data on which it intends to rely. When determining the cost of equity range and any value within that range, the CMA must take into account evidence challenging the robustness of the underlying data sets. To deviate materially from regulatory precedent using inappropriate datasets creates a flawed precedent that is likely to have a significant impact across multiple sectors.
- 2.6 ENA urges the CMA to fully re-consider the impact and circumstances in which it is appropriate to adopt new methodologies that rely on data that is not of the highest quality. The dataset and methodology underpinning the TMR estimate in the Provisional Findings fall well short of that high bar.
- 2.7 Even if a change in methodology and dataset were supported by the most robust evidence, it should not be implemented over a single price control. It is not regulatory

Professor Stephen M Schaefer (2020), Comments on CMA views on Estimating Expected Returns. Annex 1 to this submission.
ONS Developing CDILL and CDI historical actimates between 1047 and 1097, 10 October 2010. Available at:

<sup>&</sup>lt;sup>5</sup> ONS Developing CPIH and CPI historical estimates between 1947 and 1987, 10 October 2019. Available at: <u>https://www.ons.gov.uk/news/statementsandletters/developingcpihandcpihistoricalestimatesbetween1947and1987</u>.



best practice to impose such a material change over a single price control given that the underlying investments of regulated companies stretch over multiple price control periods. The CMA must reflect on the long asset lives of regulated assets when determining the period over which any such change is to be implemented.

### 3 The CMA has made errors in its approach to deflating nominal TMR

3.1 The CMA has made a number of errors in its approach to deflating nominal TMR, as set out below.

#### (a) The CMA has not chosen the most robust historical inflation measure available but, instead, has selected a measure that the ONS considers to be unsuitable for official uses and to contain errors

- 3.2 The CMA recognises that there are a number of inflation datasets and that it must choose the most robust inflation measures.<sup>6</sup> ENA agrees that the CMA must choose the most robust inflation measures. However, for the reasons below we disagree with CMA's provisional findings that it should place "*somewhat greater weight*"<sup>7</sup> on the CPI (actual plus 'back cast') inflation series and solely use RPI data as a cross-check to its analysis.
- 3.3 These provisional findings are based on an inappropriate characterisation of the strengths and shortcomings of both the CPI back cast and historical RPI data set.<sup>8</sup>

CMA has failed to acknowledge key shortcomings of the CPI back cast data set

- 3.4 The CMA recognises that the CPI data series has issues relating to its coverage of goods and services, noting in particular that CPI excludes housing costs and is comprised of a mix of actual and modelled data.<sup>9</sup> However, this is a cursory and materially incomplete assessment of the flaws in the back cast data set being used. ENA has previously provided significant evidence setting out the shortcomings of the CPI back cast data set to CMA, in a report prepared by Oxera<sup>10</sup> and the National Grid TMR Report. Key shortcomings of the CPI back cast data include:
  - (a) The authors who constructed the 1950-1988 ONS data have expressed why this data cannot be relied upon.<sup>11</sup> Instead they note the value of RPI as a long run historical measure of inflation.
  - (b) For the period from 1950 to 1988, the CPI series used by the CMA is based on a 'back-cast' using an ARIMA<sup>12</sup> model, i.e. it is a calculated series not recorded data. The authors of the ONS's paper recognise that alternative back cast models may produce contrasting results.<sup>13</sup> This undermines the reliability of the ARIMA model.
  - (c) The modelled CPI estimates for the period from 1947 to 1987 are based on data that has since been superseded. The estimates for 1947 to 1987 are calculated

<sup>&</sup>lt;sup>6</sup> Provisional Findings, para. 12.188.

<sup>&</sup>lt;sup>7</sup> Provisional Findings, para. 12.191.

<sup>&</sup>lt;sup>8</sup> The CMA's rationale for placing greater weight on CPI is set out in the Provisional Findings, para. 12.192.

<sup>&</sup>lt;sup>9</sup> Provisional Findings, para. 12.194.

<sup>&</sup>lt;sup>10</sup> Oxera, '*The cost of equity for RIIO-2: Q4 2019 update*', prepared for ENA, 29 November 2019 (Oxera 2019 Report). Enclosed as Annex 1 to ENA's 20 December 2019 submission to ENA.

<sup>&</sup>lt;sup>11</sup> See National Grid TMR Report, pages 6 to 9 for a summary of the ONS's views on why the CPI back series data cannot be relied upon,

<sup>&</sup>lt;sup>12</sup> Auto-regressive integrated moving average.

<sup>&</sup>lt;sup>13</sup> National Grid TMR Report, page 10.



from CPI data for years between 1988 and 1996 that were acknowledged by ONS to be erroneous and have since been corrected. The estimates for 1947 to 1987 have not yet been updated to reflect the new CPI values for the period 1988 to 1996, and therefore cannot be considered reliable for policy making. Indeed in October 2019, the ONS expressly stated that these CPI values were not intended for official uses and that it plans to produce new indicative estimates for the CPI between 1947 and 1987 alongside the planned CPIH estimates, based on the corrected CPI data.<sup>14</sup>

- (d) The CMA correctly observes that the consumption expenditure deflator (CED) is neither RPI nor CPI. However, the CMA concludes that it is reasonable to combine the CED with either RPI or CPI for the years 1900 to 1949. Such a conclusion is irrational given the known differences between RPI and CPI in terms of index construction and coverage. The formula effect systematically acts in one direction, to increase RPI inflation relative to CPI inflation. It is therefore not reasonable to conclude that the CED can be combined with either RPI or CPI. Such an approach will result in biased estimates of one or both of the CED/CPI or CED/RPI series.
- (e) One reason the CMA gives for combining CED with both CPI and RPI is that as a deflator the CED series will not include the formula effect. This is wrong. Whether a deflator series includes the formula effect depends on how the constant price expenditure series that was used in its construction was put together. Where the underlying price indices include the formula effect, then the deflator series will as well. Analysis by National Grid demonstrates that, for the period for which all data series are available, CEDs show greater alignment to RPI than CPI.<sup>15</sup> This analysis also demonstrates that the average differential between CED and RPI is relatively small for the full period that both data sets are available. It is therefore likely that the CED series has been constructed using a methodology comparable to RPI and thus includes an element of the formula effect. The use of CED in both RPI and CPI series can therefore be expected to artificially increase CPI data for the years 1900 to 1947, and hence artificially reduce estimated CPI real returns.

CMA has failed to recognise a number of key strengths of the RPI data series over CPI as a historical inflation measure

- 3.5 The CMA notes in its Provisional Findings that the ONS no longer considers RPI to be a national statistic.<sup>16</sup> However, the historical RPI series has a number of key strengths relative to the CPI back cast for the period 1947 to 1988 which have not been acknowledged by the CMA, including:
  - (a) RPI was a National Statistic during this period whereas CPI was not. The RPI data is therefore actual data that has been published, used for many purposes and subject to scrutiny over the years by academics and statisticians. By contrast the CPI data set is a recently modelled back cast which has not had the same level of scrutiny and is due to be superseded later this year.
  - (b) The ONS has questioned RPI being used as a forward looking index but has not questioned its use for backward looking purposes which is the situation that applies here. This is reinforced by the Bank of England using the RPI back series in their

<sup>&</sup>lt;sup>14</sup> National Grid TMR Report, page 33.

<sup>&</sup>lt;sup>15</sup> National Grid TMR Report, page 11.

<sup>&</sup>lt;sup>16</sup> Provisional Findings, para. 12.193.



historical inflation calculator,<sup>17</sup> the ONS preferring to use RPI for comparing the purchasing power of the pound over period of 1947 to 1988<sup>18</sup> and the close comparison of CEDs used in the UK's Blue Book National Accounts over 1947 to 1988 to the RPI series.<sup>19</sup>

# (b) The CMA has not followed its own approach of minimising the risk of error in setting its TMR range and has not applied its own cross-check correctly.

- 3.6 The CMA sets the criteria that should be considered when determining values from a range of potential data sources as "*the criteria should ensure we are taking account of accuracy, consistency, and managing the risk of regulatory error*".<sup>20</sup> The CMA has not followed this approach in setting its TMR range.
- 3.7 For the following reasons, the CMA's assertion that there is significant overlap between CED/CPI ranges<sup>21</sup> and RPI range is incorrect and not supported by the Provisional Findings:
  - (a) The overlap between the TMR range which uses the CED/CPI inflation series and the range which uses the CED/RPI inflation series is just 37.5%. This is not a significant overlap. Once the error in the RPI formula effect (as set out in the next section) is adjusted for, the overlap in ranges is even smaller. The remaining overlap that does occur is likely to arise due to the use of CED data in both data series for the period 1900 to 1947, which will artificially increase the CPI data series. Rather than supporting the use of the CED/CPI range of 5% to 6%, the cross-check actually casts doubt on its credibility, particularly in relation to any estimates below the lower band of the cross-check range, i.e. 5.6%.
  - (b) The CMA recognises that there are potential solutions that could improve the robustness of inflation data sets.<sup>22</sup> It provisionally concluded that the approach developed by Oxera (and supported by ENA) "appears to be experimental at this stage".<sup>23</sup> ENA recognises the CMA may have had limited opportunity to consider this evidence in detail because of the wide range of issues requiring redetermination, the large number of third party submissions and constraints imposed by the statutory timetable. ENA considers Oxera's approach to be developed beyond an "experimental" stage but nonetheless agrees that it would be helpful to undertake further work to develop this approach as a means to ensure solutions are in place for upcoming regulatory processes. The very fact that such solutions are being developed illustrates the degree of concern with the robustness of CPI back cast data.
  - (c) The CMA has overstated the increase in the formula effect in 2010 and further over-stated the consequential increase in the gap between RPI and CPI since 2010
- 3.8 One of the reasons that the CMA cites for not relying on RPI data is "the significant increase in the formula effect in 2010 as a result of a change to the way that clothing

<sup>&</sup>lt;sup>17</sup> https://www.bankofengland.co.uk/monetary-policy/inflation/inflation-calculator.

<sup>&</sup>lt;sup>18</sup> National Grid TMR Report, page 8.

<sup>&</sup>lt;sup>19</sup> National Grid TMR Report, page 11.

<sup>&</sup>lt;sup>20</sup> Provisional Findings, para. 12.65.

<sup>&</sup>lt;sup>21</sup> Provisional Findings, para. 12.232.

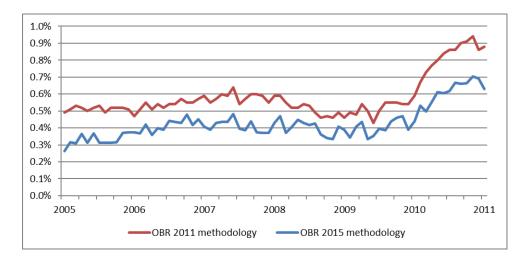
<sup>&</sup>lt;sup>22</sup> Provisional Findings, paras. 12.203 to 12.206.

<sup>&</sup>lt;sup>23</sup> Provisional Findings, para. 12.205.



*prices were collected*".<sup>24</sup> The CMA considers that the formula effect results in the difference between RPI and CPI increasing from around 50 bps to 80-90 bps.<sup>25</sup> However, this conclusion is based on flawed data, resulting in it over-stating the increase in the formula effect gap between RPI and CPI in 2010 when calculating real TMR.

- (a) The CMA made a 35 bps<sup>26</sup> upward adjustment to the long-run historical average RPI inflation rate to reduce the impact of changes in 2010 to the way that clothing prices were collected. The CMA based its estimate on data from the Office for Budget Responsibility (**OBR**) website.<sup>27</sup>
- (b) The CMA's approach is, however, inconsistent with the OBR's commentary on the data. The OBR updated its estimates of the formula effect gap in 2015<sup>28</sup> but the CMA has not reflected this updated assessment in its approach.
- (c) The chart below presents the difference that the OBR's updated methodology makes to the figures that the CMA presents in figure 12-7 of the Provisional Findings. Updating the figures for this new OBR methodology reduces the apparent increase in the formula effect to only 20-30 bps.



(d) Further, as outlined in the National Grid TMR Report,<sup>29</sup> the RPI to CPI wedge has remained at virtually the same level in the periods before and after the 2010 increase in the formula effect. Everything else being equal, the wedge would have been expected to grow by 20 to 30bps but the 2011 to 2019 wedge has only

In this 2015 publication the OBR recognised that the gap between RPIJ inflation and RPI inflation could be used to directly calculate the formula effect, stating that:

<sup>&</sup>lt;sup>24</sup> Provisional Findings, para. 12.192(b).

<sup>&</sup>lt;sup>25</sup> Provisional Findings, para. 12.192(b) and Figure 12-7.

<sup>&</sup>lt;sup>26</sup> Provisional Findings, para. 12.192 and 12.208.

Provisional Findings, para. 12.192(b)

OBR (2015), Revised assumption for the long-run wedge between RPI and CPI inflation. Available here:

https://obr.uk/box/revised-assumption-for-the-long-run-wedge-between-rpi-and-cpi-inflation/.

<sup>&</sup>quot;The OBR first published an estimate of the long-run wedge between RPI and CPI inflation in a 2011 working paper. Since then, the ONS has begun producing RPIJ, which recalculates the RPI by replacing the Carli averaging method with Jevons. We have also had more time to assess the impact of the 2010 change in the calculation of clothing prices, which has increased the size of the formula effect. On the basis of the latest evidence, we have revised down our estimate of the long-run wedge between RPI and CPI inflation." The OBR goes on to explain the reasons for this downwards revision, concluding that:

<sup>&</sup>quot;This is demonstrated by the gap between RPI and RPIJ (the formula effect using RPI weights), which has averaged 0.6 percentage points since 2010, whereas the published ONS formula effect (the formula effect calculated using CPI weights) remains around 0.9 percentage points."

<sup>&</sup>lt;sup>29</sup> National Grid TMR Report, pages 7 and 27.



increased by 3 bps compared to the period between 2000 and 2009. It is also less than 10 bps higher than the average from 1988 to 2009.

(e) The lack of any step change in the difference between RPI and CPI in 2010 suggests that, to the extent that changes in RPI in 2010 might mean that this is an inconsistent measure over time, the same would be equally true of CPI. This should therefore not be considered a differentiator for placing more weight on the CPI dataset for historical inflation.

# (d) Changes required to address errors in the CMA's approach to deflating nominal TMR

- 3.9 ENA considers that the errors in the CMA's approach to deflating nominal TMR should be corrected by the CMA in advance of the Final Determination by:
  - (a) firstly, recognising that the CMA has overstated the increase in RPI formula effect on the difference between RPI and CPI, and considering other factors omitted in the Provisional Findings that would further reduce the difference between these series; and
  - (b) secondly, placing greater weight on the historical RPI data than the CPI back cast data.
- 3.10 More robust data series than the CPI back cast are available, so if the CMA were to continue to use CPI back cast data, it must address evidence submitted by interested parties and set out its reasons for considering this series to be more robust. Further, the CMA must limit the risk of regulatory error by applying its own cross-check correctly and increasing the lower end of its TMR range to the point of overlap between CPI and RPI deflated ranges.

### 4 The CMA has failed to recognise that investors will use a discount rate at least as high as the historical arithmetic average when taking capital budgeting decisions

- 4.1 The CMA's approach to averaging the historical returns addresses the wrong question, resulting in an incorrect downward biased estimate of the cost of equity. As set out below, this issue applies regardless of the choice of inflation measure.
  - (a) The CMA defines the TMR as the total return that investors require for investing in equities. The JKM and Blume estimators used by the CMA can be used to answer this question, and correctly provide estimates that are slightly lower than the arithmetic average. However, the relevant question for setting a price control is 'what rate do investors use to discount future cash flows?'. Using the JKM and Blume estimators to answer this question results in estimates that are more biased than simply using the arithmetic average, because the JKM and Blume estimators adjust in the wrong direction (i.e. down). ENA has previously submitted evidence to CMA setting out this logic.<sup>30</sup>

<sup>&</sup>lt;sup>30</sup> Oxera and Schaefer 2020 Reports.



- (b) Cooper (1996)<sup>31</sup> demonstrated that the discount rate investors should use to give an unbiased estimate of the present value of future cash flows, will assume a TMR at least as high as the arithmetic average of historical returns. As the horizon for investment appraisal extends, the TMR must be further increased above the arithmetic average.
- (c) Professor Stephen Schaefer sets out his reflections on the CMA's approach to establishing expected returns in a report annexed to our submission.<sup>32</sup> Professor Schaefer observes that:

"estimation error in the expected return will produce a positive bias in both the expected future value of an investment portfolio and in the present value of a future cash flow. Since future value increases with the expected return, adjusting for a positive bias in the case of compounding means using a lower expected return. However, since present value decreases with the expected return, adjusting for a positive bias in the case of discounting means using a higher expected return", and

"To allow both discounters and compounders to make consistent, unbiased estimates, all the CMA needs to do is to provide an unbiased estimate of the arithmetic return."

- (d) The top end of the CMA's TMR range explicitly excludes the arithmetic average, which means that any point in the CMA's TMR range will produce a downward biased estimate of the discount rate that investors will apply to discount future cash flows. Setting the allowed equity return at this level will generate a stream of future cash flows for NERL that have a present value lower than the equity proportion of NERL's regulated asset base. In other words, investment would have a negative net present value and would be heavily disincentivised.
- (e) The effect of the use of a point estimate part way between geometric and arithmetic mean reduces the TMR very significantly relative to the value that investors will use to make capital budgeting decisions.
- (f) Additionally, Oxera's work for ENA shows a further shortfall for the difference between the correct value and the arithmetic average of 18bps at a ten-year investment horizon and 35bps at a twenty-year investment horizon. The number continues to increase for investment horizons longer than 20 years.<sup>33</sup> The top end of CMA's TMR range will be artificially reduced by at least this amount, given that the CMA has explicitly excluded the arithmetic average from the range.
- (g) ENA considers that if the data were available, this error could be corrected by the CMA in advance of the Final Determination by using the correct formula to calculate the discount rate, namely:

- http://faculty.london.edu/icooper/assets/documents/ArithmeticVersusGeometric.pdf.
- <sup>32</sup> Annex 1 to this submission

<sup>&</sup>lt;sup>31</sup> Cooper, I., *Arithmetic versus geometric mean estimators: Setting discount rates for capital budgeting*, European Financial Management, 2:2, 1996, pp. 156–67. Available here: http://faculty.london.edu/jcooper/asset/documents/Arithmetic/versus/Geometric.pdf

<sup>&</sup>lt;sup>33</sup> Oxera, *The cost of equity for RIIO-2: Q4 2019 update*, prepared for the ENA, 29 November 2019, table 2.3 (previously provided to CMA).



$$m_N^* = \left(m + \frac{1}{2}\sigma^2 + \frac{1}{2}\frac{\sigma^2}{T}N\right)$$

Where:

m\* is the correct discount rate

m is the historical arithmetic mean return

 $\sigma$  is the volatility of annual returns

T is the number of years of observations

N is the number of periods that are being discounted

## 5 Further evidence that CMA's TMR range is artificially reduced

- 5.1 National Grid's report highlights further evidence that the TMR data relied on by the CMA results in a downwards biased TMR range, including:
  - (a) The underlying nominal TMR data uses a starting point of 1900. There is nothing special in 1900 other than this has traditionally been the starting point for data used in the Credit Suisse Global Investment Returns Yearbook by Elroy Dimson, Paul Marsh and Mike Staunton. The use of 1900 as a starting point gives a downward bias, as the use of an earlier or later starting date generally leads to higher values of realised average (real) return.<sup>34</sup>
  - (b) The data set relied on by the CMA for the period 1900-1954 data is based on the returns for only the 100 largest companies each year (FTSE 100). This will underestimate the average realised return for the UK equity market (TMR) as larger companies tend to have lower returns than small companies.<sup>35</sup>
- 5.2 The CMA should reflect the downward bias in TMR range by selecting a point estimate towards the upper end of the range, once that range is corrected for the other issues ENA has noted in this submission.

# 6 In combination, these issues very significantly underestimate the TMR and cost of equity

- 6.1 As set out above, the changes in methodology and choice of datasets underpinning the CMA's provisional findings in relation to TMR are erroneous. The cumulative effect of the issues with the CMA's approach is a TMR range that is significantly downwards biased and wrong. Use of the mid-point of the TMR range in the Provisional Findings results in a cost of equity that is more than 100 bps lower than justified by reliable evidence and a robust methodology.
- 6.2 In summary, to correct the shortcomings in its approach to TMR in the Provisional Findings, the CMA must:
  - (a) reflect the downward bias in TMR range by first estimating and accounting for the impact of the issues set out in section 5.
  - (b) correct its approach to deflating nominal TMR by:

<sup>&</sup>lt;sup>34</sup> National Grid TMR Report, page 54.

<sup>&</sup>lt;sup>35</sup> National Grid TMR Report, page 56.



- (i) firstly, recognising that the CMA has overstated the increase in RPI formula effect on the difference between RPI and CPI and considering other factors that were omitted in the Provisional Findings and would further reduce the difference between these series; and
- (ii) secondly, placing greater weight on the historical RPI data than the CPI back cast data.
- (c) correct the approach to averaging historical returns by using the correct formula to calculate the discount rate.
- (d) In addition to correcting for calculation errors in the CMA's approach, the level of residual uncertainty must be reflected in CMA's choice of point in the range. The uncertainty in the CMA's approach means it is reasonable to expect that both the top and bottom of its TMR range are materially too low. Choosing a point estimate in the middle of the range (or lower) would undermine NERL's ability to deliver quality of service and make suitable investments for customers.
- 6.3 The CMA's decision regarding the TMR for NERL in its Final Determination is likely to set a flawed precedent that may be relied upon by other regulators for their subsequent price control decisions. In the energy sector, any decision to set the cost of equity in line with the Provisional Findings would reduce the returns to investors in energy companies by £1.2bn over the next regulatory period.
- 6.4 An approach to TMR which focuses excessively on short-term cost minimisation will jeopardise or indeed stymie innovation and investment. And any hiatus in progress will introduce new risks which must be weighed against the potential short-term savings compared to long term consumer detriment. For example, Ofgem's net zero strategy and the net zero manifesto launched by ENA on behalf of the energy network companies rely on billions of pounds of private investment and explicitly recognises that:

*"[k]ey to attracting and securing this investment are policy and regulatory frameworks which are stable, long-term and closely aligned to net zero"*.<sup>36</sup>

- 6.5 Essential innovation of this nature would be placed in jeopardy by a regulatory determination which reduces the allowed rate of return below acceptable levels to attract and retain necessary investment.
- 6.6 In addition to putting these government objectives at risk, a material shortfall compared to investor expectations also risks under-funding investment necessary to maintain the high standards of quality of service enjoyed by GB customers. Such an outcome would clearly cause significant consumer and societal detriment even before the risk to delivering decarbonisation targets is considered.

<sup>&</sup>lt;sup>36</sup> See <u>http://www.energynetworks.org/assets/files/Final%20ENA%20general%20election%20manifesto%202019.pdf</u>. The accompanying press release states:

<sup>&</sup>quot;Our collective efforts must be backed by billions of pounds of private investment. Key to attracting and securing this investment are policy and regulatory frameworks which are stable, long-term and closely aligned to net zero. Energy network companies are investing £45 billion in the decade up to 2023 and delivering world-leading innovation to help solve our toughest problems – from outlining a pathway to net zero heat to laying the foundations for the country's smarter electricity grid."