Offshore transmission developers,
interconnector developers, and other
interested parties

Email: Cap.Floor@ofgem.gov.uk

Date: 28 March 2024

Dear stakeholders

Decision on the consultation to modify the inflation index used in the calculation of Interest During Construction (IDC) and the IDC rates to apply during 2024-25 for offshore transmission projects and Window 3 cap and floor electricity interconnectors.

Introduction

In November 2023, we published a consultation (the **November 2023 Consultation**) on moving from the Retail Price Index (**RPI**) to the Consumer Prices Index including owner occupiers' housing costs (**CPIH**).[1] The CPIH is our proposed inflation index for the IDC rates for offshore transmission owner (**OFTO**) projects and Window 3 cap and floor electricity interconnectors.

This letter summarises the responses to the November 2023 Consultation and provides our decision. It also sets out our decision on the IDC rates for OFTO projects and Window 3 cap and floor electricity interconnectors, to apply to projects taking Final Investment Decision (**FID**) in 2024-25.

Decision

Following a consideration of stakeholder views, we have decided the following:

- Inflation index for IDC – to move from the RPI to CPIH and to use the consumer prices index (**CPI**) as a proxy for CPIH, until CPIH-based forecasts become reliably available. This decision applies to projects under the OFTO regime from the date of this letter and Window 3 cap and floor electricity interconnectors.

[1] Consultation on moving from RPI to CPIH as the inflation index for the Interest During Construction rate for projects under the Offshore Transmission Owner regime and Window 3 electricity interconnectors: https://www.ofgem.gov.uk/publications/consultation-moving-rpi-cpih-inflation-index-interest-during-construction-rate-projects-under-offshore-transmission-owner-regime-and-window-3-electricity-interconnectors

Based on this updated methodology and a reference date of 31 January 2024,[2] we have decided the following:

- OFTO projects IDC – to set the IDC rate capped at **9.48**%[3] (pre-tax, nominal) for projects reaching FID in 2024-25 (it was 9.12% for projects reaching FID in 2023-24); and
- Window 3 interconnectors IDC – to set the IDC rate at **5.38**%[4] (vanilla, real-CPIH)[5] for projects reaching FID in 2024-25. (it was 3.93% (vanilla, real-RPI) for projects reaching FID in 2023-24).[6]

The IDC rate for any outstanding Window 1 project will be set after the project's FID date, in accordance with our policy for Window 1.[7] For any outstanding Window 2 projects, the IDC rate will be determined once the project has reached FID. This will follow the methodology detailed in the 2023-24 IDC decision letter.[8]

For OFTO projects, the rate of IDC included on a project must be justified according to the cost assessment guidance, as the 9.48% is a cap.[9]

Annexes 1 and 2 set out the value of the IDC rates parameters for 2024-25 for OFTO projects and Window 3 cap and floor electricity interconnectors. For comparison, we have provided the IDC rates for 2023-24 and the relative percentage point change in the parameters' value between 31 January 2023 and 31 January 2024.

Overview of Consultation

We decided to consult on our proposal to remove RPI as an inflation index from the IDC methodology in favour of CPIH and to use CPI as a proxy for CPIH until CPIH forecasts are reliably available. We also proposed to calculate CPIH based on Approach 2 only - where CPI is estimated based on the average of 4-year CPI forecasts from Office for Budget Responsibility (**OBR**), Bank of England (**BoE**), and HM Treasury's comparison of independent forecasters.

Details about Approach 1, which we have decided not to use, is set out in the November 2023 Consultation document. CPIH is the preferred UK inflation index. However, there are

[2] This is the relevant date to which the spot figures and averages used to estimate the parameter values underpinning the IDC rates refer to; for example, a spot yield is the yield on 31 January 2024 and a 1-year average yield is the average yield in the 12-month period finishing on 31 January 2024.
[3] The 9.48% IDC rate for offshore transmission projects is the mid-point of the 7.92%-11.04% nominal pre-tax WACC range; please refer to Annex 1 for a detailed breakdown of the values used to estimate this range.
[4] The 5.38% IDC rate for interconnectors is the mid-point of the 4.23%-6.53% real-CPIH vanilla WACC range (excluding debt transaction costs); please refer to Annex 2 for a detailed breakdown of the values used to estimate this range.
[5] The rate for interconnectors is reported in vanilla, real-CPIH terms because the Cap and Floor Financial Models (CFFMs) run with real inputs and include a separate tax allowance. For a like-for-like comparison of the IDC rates; please refer to Annex 1 and 2.
[6] IDC rates for interconnectors do not include a debt transaction cost allowance, as transactions costs are accounted for separately in the CFFMs. If a transaction cost allowance was included in the IDC rates (in line with offshore transmission projects), the IDC rate in 2024-25 would be 5.52% (from 4.07% in 2023-24).
[7] Interconnector Cap and Floor Regime Handbook: https://www.ofgem.gov.uk/sites/default/files/2021-09/Regime%20Handbook.pdf
[8] Decision on 2023-24 Interest During Construction (IDC) rates for offshore transmission projects and cap and floor interconnectors: https://www.ofgem.gov.uk/publications/decision-2023-24-interest-during-construction-idc-rates-offshore-transmission-projects-and-cap-and-floor-interconnectors
[9] Offshore Transmission: Guidance for Cost Assessment (2022): https://www.ofgem.gov.uk/sites/default/files/2022-03/Offshore%20Transmission%20Guidance%20for%20Cost%20Assessment%202022.pdf

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currently limited forecasts of CPIH inflation available to regulators and market participants. Therefore, we proposed to use CPI forecasts from reliable sources as a suitable proxy of CPIH forecasts, until the latter are reliably available.[10]

Our proposed approach aligns with the wider Ofgem regulatory regimes, such as RIIO-2 Final Determinations published on 3 February 2021 where we decided to implement a change from RPI to CPIH from 1 April 2021 for RIIO-2.[11]

We noted that our proposals will apply to OFTO projects, Window 3 cap and floor electricity interconnectors from 31 March 2024 onwards and any future interconnector projects that might be approved under our cap and floor regime.

We received five responses by the consultation close date and have considered them to reach our decision.

Summary of consultation responses

This section summarises the responses from five stakeholders to the four questions we asked in the November 2023 Consultation. These questions are:

1. Do you agree with our proposal and reasoning to move from RPI to CPIH as the inflation index for the IDC rate calculation?
2. Do you agree with our proposal in Approach 2 to use CPI as a proxy for CPIH, or do you consider that there is a better proxy to use for CPIH than CPI?
3. Do you agree with our proposal to calculate CPIH based on Approach 2 only?
4. Do you have any alternatives to our proposed changes? If so, could you please elaborate on them and present evidence on the potential impact these might have on the IDC rate?

Two responses to the November 2023 Consultation were confidential. The three non-confidential responses were from National Grid Ventures, Department for the Economy and ScottishPower.

All responses to question one agree with our proposal to move from RPI to CPIH as the inflation index for the IDC rate calculation. Of these, one suggested Ofgem could clarify what is meant by "CPIH-based estimates". Another response to question one discussed concerns around the ability to hedge inflation at financial close.

We appreciate the consensus on the move from RPI to CPIH and understand the concerns raised. In response to the request for clarification on "CPIH-based estimates", we can clarify that we mean CPIH forecasts. Regarding the caution expressed on the ability to conduct hedging at financial close, we acknowledge this concern. We note that markets evolve over time and the potential impact of any limitation in availability of inflation hedging products on projects is uncertain. We will closely monitor this aspect and available evidence to consider, in the context of the consumer interest, whether adjustments to the approach are required in future.

All responses to question two agree with our proposal to use CPI as a proxy for CPIH until CPIH forecasts are reliably available.

[10] These reliable sources are the OBR, BoE and HM Treasury.
[11] RIIO-2 Final Determinations – Finance Annex (REVISED): https://www.ofgem.gov.uk/sites/default/files/docs/2021/02/final_determinations_-_finance_annex_revised_002.pdf

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All responses to question three agree with our proposal to calculate CPIH based on Approach 2 only, where CPIH is estimated based on the average of 4-year CPI forecasts from OBR, BoE, and HM Treasury's comparison of independent forecasters.

Out of the responses received for question four, one response suggested that market pricing based on CPI and/or indexed gilts and securities would be preferable to the average of the three CPI forecasts as the market becomes more liquid. We appreciate the suggestion and note that this may be particularly pertinent given the anticipated methodology change of RPI to an aligned CPIH methodology from 2030, and as a result a wider range of market derived measurers may become available. We will continue to review whether the forecast approach remains optimal in the context of market developments. Other responses to question four did not suggest alternatives.

The non-confidential responses can be found in full in the appendices of the webpage for the November 2023 consultation.

Our decision on the Consultation

Following our analysis of the five responses to the November 2023 Consultation, we have decided the following:

- to move away from the use of RPI and instead use CPIH as the sole inflation measurement for OFTO projects and Window 3 cap and floor electricity interconnectors;
- to remove Approach 1 from the IDC methodology, and calculate CPIH based on Approach 2 with a 100% weighting, which would involve using CPI forecasts from the OBR, BoE and HM Treasury as a proxy for CPIH-based forecasts; and
- to express the IDC rates for Window 3 cap and floor electricity interconnectors in CPIH-real values.

What this decision means for Window 3 and future cap and floor electricity interconnectors.

This decision will apply to Window 3 cap and floor electricity interconnectors and OFTO projects taking FID after 31 March 2024.

In the IDC methodology, CPIH is used to convert the Total Market Return (**TMR**) range from real to nominal.

As RPI is typically higher than CPIH, switching to CPIH would involve deflating nominal values by a lower number, thus obtaining a higher real value. As the interconnector IDC is quoted in real terms, this decision means that the CPIH-real IDC rate for interconnectors would typically be higher relative to the RPI-real IDC rate.

Regarding future plans for the IDC methodology, we recognise that other parameters within the IDC methodology were last considered in our 2018 consultation.[12] As such, we may revisit other parameters in the IDC methodology at a later time, conducting a detailed review to ensure that they reflect current market conditions.

[12] Review of the methodology for the calculation of the Interest During Construction for offshore transmission and future interconnectors granted the cap and floor regime: https://www.ofgem.gov.uk/publications/review-methodology-calculation-interest-during-construction-offshore-transmission-and-future-interconnectors-granted-cap-and-floor-regime

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2024/25 IDC rates for OFTO projects and Window 3 cap and floor electricity interconnectors

Our decision

We have decided to set the IDC rates for 2024-25 as follows:

- OFTO projects IDC – to set the IDC rate capped at **9.48**% (pre-tax, nominal) for those OFTO projects reaching FID during 2024-25; and
- Window 3 interconnectors IDC – to set the IDC rate at **5.38**% (vanilla, real-CPIH) for projects reaching FID during 2024-25.

Annex 1 and Annex 2 present the low and high values of IDC rates' parameters for OFTO projects and Window 3 cap and floor electricity interconnectors, respectively. These values are for years 2024-25 and 2023-24, and include the relative percentage point change year on year. The values are based on the reference dates.

An overview of our IDC methodology can be found in Annex 3, for calculating the IDC rates for OFTO projects and Window 3 cap and floor electricity interconnectors. If you have any questions on this decision or would like more information, please contact the Cap and Floor team (Cap.Floor@ofgem.gov.uk).

Yours sincerely,

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Annex 1: Value of input parameters of IDC rates for offshore transmission projects

The table below sets out the values at the low and high end of the ranges that we have set for each parameter of the IDC rates for OFTO projects for year 2024-25 and 2023-24, as well as the relative percentage point change in the parameters' values year on year.

OFTO projects

Parameter	IDC 2024-25 Low	IDC 2024-25 High	IDC 2023-24 Low	IDC 2023-24 High	Change (year on year) Low	Change (year on year) High
Debt Yield	4.90%	5.55%	4.00%	4.65%	0.90%	0.90%
Transaction costs	0.25%	0.50%	0.25%	0.50%	0.00%	0.00%
Cost of debt	5.15%	6.05%	4.25%	5.15%	0.90%	0.90%
Risk-free rate	3.60%	4.00%	2.40%	3.30%	1.20%	0.70%
Total market return	8.59%	9.10%	9.33%	9.85%	-0.74%	-0.75%
Asset beta	0.45	0.80	0.45	0.80	0.00	0.00
Gearing	37.5%	37.5%	37.5%	37.5%	0.00%	0.00%
Equity beta	0.72	1.28	0.72	1.28	0.00	0.00
Cost of equity	7.19%	10.53%	7.39%	11.68%	-0.20%	-1.16%
Vanilla WACC	6.43%	8.85%	6.21%	9.23%	0.21%	-0.39%
RPI	3.45%	3.45%	3.90%	3.90%	-0.45%	-0.45%
CPI	2.20%	2.20%	2.90%	2.90%	-0.70%	-0.70%
RPI-real WACC vanilla	2.88%	5.22%	2.23%	5.13%	0.65%	0.08%
CPI-real WACC vanilla	4.13%	6.50%	3.22%	6.16%	0.92%	0.35%
Tax rate	25.0%	25.0%	19.0%	19.0%	6.00%	6.00%
Pre-tax cost of equity	9.59%	14.03%	9.12%	14.42%	0.47%	-0.39%
Pre-tax WACC*	7.92%	11.04%	7.30%	10.95%	0.63%	0.09%
RPI-real pre-tax WACC	4.32%	7.34%	3.27%	6.78%	1.06%	0.56%
CPI-real pre-tax WACC	5.60%	8.65%	4.27%	7.82%	1.33%	0.83%

*The IDC rate for OFTO projects presented on page 1 of this letter (9.48%) is the mid-point of the 7.92%-11.04% nominal pre-tax WACC range.

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Annex 2: Value of input parameters of IDC rates for Window 3 cap and floor electricity interconnectors subject to the cap and floor regime

The table below sets out the values at the low and high end of the ranges that we have set for each parameter of the IDC rates for Window 3 cap and floor electricity interconnectors subject to the cap and floor regime for year 2024-25 and 2023-24, as well as the relative percentage point change in the parameters' values year on year.

Interconnectors

Parameter	IDC 2024-25 Low	IDC 2024-25 High	IDC 2023-24 Low	IDC 2023-24 High	Change (year on year) Low	Change (year on year) High
Debt Yield	4.75%	5.45%	4.15%	4.85%	0.60%	0.60%
Transaction costs	-	-	-	-	-	-
Cost of debt	4.75%	5.45%	4.15%	4.85%	0.60%	0.60%
Risk-free rate	3.60%	4.00%	2.40%	3.30%	1.20%	0.70%
Total market return	8.59%	9.10%	9.33%	9.85%	-0.74%	-0.75%
Asset beta	0.50	0.85	0.50	0.85	0.00	0.00
Gearing	37.5%	37.5%	37.5%	37.5%	0.00%	0.00%
Equity beta	0.80	1.36	0.80	1.36	0.00	0.00
Cost of equity	7.59%	10.93%	7.94%	12.21%	-0.35%	-1.27%
Vanilla WACC	6.52%	8.88%	6.52%	9.45%	0.00%	-0.57%
RPI	3.45%	3.45%	3.90%	3.90%	-0.45%	-0.45%
CPI	2.20%	2.20%	2.90%	2.90%	-0.70%	-0.70%
RPI-real WACC vanilla	2.97%	5.25%	2.52%	5.34%	0.45%	-0.09%
CPI-real WACC vanilla*	4.23%	6.53%	3.52%	6.36%	0.71%	0.17%
Tax rate	25.0%	25.0%	19.0%	19.0%	6.00%	6.00%
Pre-tax cost of equity	10.12%	14.58%	9.81%	15.07%	0.31%	-0.49%
Pre-tax WACC	8.11%	11.15%	7.69%	11.24%	0.42%	-0.08%
RPI-real pre-tax WACC	4.50%	7.45%	3.64%	7.06%	0.86%	0.39%
CPI-real pre-tax WACC	5.78%	8.76%	4.65%	8.10%	1.13%	0.66%

*The IDC rate for Window 3 cap and floor electricity interconnectors presented on page 2 of this letter (5.38%) is the mid-point of the 4.23%-6.53% real-CPIH vanilla WACC range (excluding debt transaction costs, as these are accounted for separately under the cap and floor regime; if transaction costs were included, the range would be 4.32%-6.72% and the mid-point 5.52%).

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Annex 3: Overview of our IDC methodology

Aside from the change in inflation index from RPI to CPIH, the methodology used to set the values of the parameters of the 2024-25 IDC rates has remained unchanged relative to the methodology used for the 2023-24 IDC rates.

Relative to 2023-24, the values of five of these parameters (corporation tax, debt yield, risk-free rate, inflation and total market return) have changed, while the values of all other parameters (asset beta, debt transaction costs and gearing) have remained the same.

The remainder of this section provides an overview of our approach to setting the value of each of the five parameters of the IDC rates which have changed relative to the 2023-24 values.

Corporation tax

On 1 April 2023, the corporation tax increased from 19% to 25%.[13]

Cost of debt – Yield

The yield component of the cost of debt allowance is set based on the spot and 1-year average yields on three iBoxx GBP bond indices:

- A-rated Non-Financial Corporate (primary benchmark);
- BBB-rated Non-Financial Corporate (primary benchmark); and
- Infrastructure (secondary benchmark used as a cross-check).

The tenor of the indices is selected to match the approximate average length of the construction period of the different assets:

- Offshore transmission: tenor of 1-3 years, reflecting average construction period of 2 years; and
- Interconnectors: tenor of 3-5 years, reflecting average construction period of 4 years.

We set the bottom end of the ranges as a weighted average of the spot and 1-year average yields on the A-rated Non-Financial Corporate index, with weights of two thirds and one third respectively.

Similarly, we set the top end of the ranges as a weighted average of the spot and 1-year average yields on the BBB-rated Non-Financial Corporate index, with weights of two thirds and one third respectively.

Cost of equity – Risk-free rate

The risk-free rate is set based on spot, 20-day average and 1-year average yields on the 5-year UK Gilt.

Inflation

To convert the ranges from nominal to real, we use the CPI inflation assumption, as a proxy for CPIH.

The CPI assumption is set based on the average of CPI forecasts from OBR, BoE, and HM Treasury's comparison of independent forecasters. Based on the updated analysis using a reference date of 31 January 2024, we have updated the CPI assumption for the 2024-25

[13] Corporation Tax charge and rates from 1 April 2022 and Small Profits Rate and Marginal Relief from 1 April 2023: https://www.gov.uk/government/publications/corporation-tax-charge-and-rates-from-1-april-2022-and-small-profits-rate-and-marginal-relief-from-1-april-2023/corporation-tax-charge-and-rates-from-1-april-2022-and-small-profits-rate-and-marginal-relief-from-1-april-2023

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IDC rates to 2.20%. This is an overall decrease relative to the CPI assumption of 2.90% we used for setting the 2023-24 IDC rates. Although the IDC rates for OFTO projects and Window 3 cap and floor electricity interconnectors are set, respectively, in nominal and CPIH-real terms, RPI-real ranges are also provided in Annex 1 and 2 to allow for comparison. RPI inflation assumption was set based on the 1-year average 5-year breakeven inflation (which is the inflation assumption implied in the difference between nominal and real 5-year UK Gilt yields).

Total Market Return (TMR)

The TMR range remains aligned with the range estimated for the RIIO-2 price controls for transmission and gas distribution networks, as confirmed at Final Determinations published on 3 February 2021.[14]

[14] In the Finance Annex to the Final Determinations, the TMR range (6.25% to 6.75%) is presented in real terms relative to CPIH inflation, with CPIH forecast to be equal to CPI. Applying the Fisher formula and the CPI inflation assumption used to set IDC rates (2.20%) to this range returns a nominal TMR range of 8.59% to 9.10%, as (1+6.25%) * (1+2.20%) – 1 = 8.59% and (1+6.75%) * (1+2.20%) – 1 = 9.10%.

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