

# **SRN-DDR-26: Real Price Effect and Frontier Shift Methodology Draft Determination Response**

28 August 2024  
Version 1.0

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## 1. Introduction

In the Draft Determination, Ofwat has put more emphasis on post frontier shift and real price effect tables than at business plan submission. Draft Determination representations require us to populate several additional tables to show the costs we will incur in each year of AMP8 adjusted for our view of frontier shift and RPEs.

This document sets out how we have derived each of our real price effects, the basis for our frontier shift efficiency and how we have applied these to our business plan data tables.

## 2. What we have changed since business plan submission

At PR24, Ofwat further developed the analysis of Real Price Effects (RPEs) and Frontier Shift Efficiency (FSE), which had been introduced at PR19. Ofwat requires companies to populate data table SUP11 where they document the RPEs and FSE assumptions included in their Business Plan (BP) submissions.

At business plan submission, the majority of data tables were completed in a “pure” 22/23 price base. The only tables populated in “22/23 CPIH-deflated price base” (i.e., inclusive of RPEs and FSE) were tables CW1, CWW1 and Ret1 (Tables 1), which are equivalent in structure to CW1a, CWW1a, Ret1a (Tables 1a). At the business plan submission, SUP11 was used to populate the AMP8 timeline in Tables 1, by uplifting the corresponding cells in Tables 1a, using the ‘Cumulative net price change’ entries in SUP11, lines 11.71 to 11.78.

Our cost weightings in SUP11 were populated using analysis of historical data and embedded in the application of the ‘Cumulative net price change’, as outlined above. As table SUP11 splits costs by ‘Base’ and ‘Enhancement’, rather than by ‘Opex’ and ‘Capex’, this skewed the split of the Opex and Capex reported in Tables 1 (post-RPE/FSE).

Following the business plan submission, we reviewed our approaches for applying RPEs to Tables 1a with the aim of improving the accuracy of the Opex/Capex split in Tables 1 (which drives the financial modelling of our plan). We also revisited our analysis of the cost weightings, further developing the Opex analysis to provide an updated view of the split of costs by cost category (Labour; Energy; Chemicals; Materials Plant & Equipment; Other). This refinement led to a more refined allocation of costs previously categorised as ‘Other’, making use of internal GL codes relating to Contractor activities.

The updated approach to applying RPEs and FSE is also used to complete the recently introduced ADD tables – specifically ADD1 to ADD13, which are post-RPE/FSE versions of existing tables.

## 3. Approach to completing our post frontier shift and RPE tables

### Establishing the external indices

We have set our initial real price effects from external indices, as documented in our October 2023 business plan “SRN16 real prices effects and frontier shift”. The Indices we used are:

- Energy – Market price from Cornwall energy, up to 1st July 2024.
- Labour – Extrapolation of the ASHE index for specialist labour in wholesale controls and the ASHE retail index for labour (2018-2023), both published by ONS.

- Chemicals - The historical wedge (10-year average) between general inflation and the Inputs of Chemicals dataset in the PPI series published by ONS, 2012 –update of 26th June 2024.
- Materials, plant and equipment - Producer Price Inflation series on Purchases of fuels and materials (including the Climate Change Levy) and Inputs into production of machinery and equipment indexes published by ONS –update of 26 June 2024.

### Frontier shift efficiency

As per our business plan submission we are retaining the position of an appropriate frontier shift of 0.5%. Further evidence as to why 0.5% is the limit of frontier efficiency is explained in SRN-DDR-018 Economic Insight Frontier Shift Report.

### Company exposure to external market prices, and transition from internal position (including energy hedging arrangements)

The SUP11 data table guidance (paragraph 13.5) states '*Forecast energy costs should reflect existing hedging arrangements water companies have in place*'. We have considered the extent of our exposure to the inflation reflected in external market conditions, not only for energy costs, but for all five of the SUP11 cost categories. This includes assessments of:

- our assumed exposure to inflation during AMP7, used in deflating AMP7 table entries to 2022-23 prices;
- the external benchmark indices discussed above;
- whether our costs will revert to external market conditions; and
- whether our cost inflation is embedded, and we are, therefore, exposed to annual real price effects during AMP8, without a sharp reversion to correct cumulative difference against the external benchmark indices.

### Labour

- We assume that labour cost inflation is embedded in our AMP7 forecast, and that we will experience exposure to the annual RPEs during AMP8.

### Energy

- As we emerge from our hedged position in AMP7, we experience energy RPE above that reflected in the external energy market. For 2025-26 we show a sharp correction in table SUP11, reflecting realignment with falling prices. This reflects our exposure to market prices.

### Chemicals

- Chemicals are a relatively small proportion of our cost base, but prices can be volatile, and we assess that we have exposure to market prices. We reflect the reversion to market prices in SUP11, deferred to 2025-26. The deferral is driven by the assumptions used to deflate our AMP7 costs to 2022-23 prices.

### Materials, Plant & Equipment

- We note Ofwat's position of not including RPE in ex-ante expenditure allowances for MP&E (per Query 30, Inbound queries and response report, 12 August 2024). Consistent with our previous submission and data table guidance, we include an RPE assumption in SUP11 for MP&E. This assumes no exposure to RPEs in AMP7, followed by exposure to the annual RPEs in the external market in AMP8.

## Other

- We assume no RPE for this cost category.

### Application of RPE/FSE (i.e. population of Tables 1 and ADD1 to ADD13)

Our approach for adjusting costs to reflect the impact of RPE/FSE, and subsequent population of the post-RPE/FSE data tables, depends on whether the cost is opex or net capex, with different approaches for each. The main summary post-RPE/FSE tables (Tables 1) are a product of tables ADD1 to ADD13

#### Tables 1 (CW1, CWW1, Ret1)

CW1 and CWW1 are linked to the ADD tables, in the same way that CW1a and CWW1a are linked to the corresponding tables (e.g. CW2, CW3, CWW2, CWW3) in the main data table set.

Ret1 does not have associated ADD tables. Opex and Capex entries were populated directly, using the approaches outlined below.

#### Net Capex (Capex less Grants & Contributions)

The approach remains similar to that previously used – application through a high-level overlay - but is applied to Capex items only. The cost weightings used in our October 2023 business plan submission were disclosed in SUP11 as totex cost weightings, consistent with table guidance. These had, however, been re-stated using separate assessments of cost weighting by opex and capex.

We have used these Capex cost weightings, in conjunction with the RPE and FSE assumptions, to derive weighted average cumulative net price change multipliers for Capex. These are applied to uplift Capex cells in the ADD tables by reference to the corresponding cells in the equivalent main data tables, embedding RPE/FSE.

#### Opex

Our AMP8 Opex baseline is driven by our AMP7 Opex exit rate, underpinned by our budget for 2024-25. This provides Opex data at a granular level, with the Opex baseline comprising circa 17,900 lines of data at GL and cost centre level. Additional Opex data line items are added for subsequent years in AMP8.

The updated SUP11 cost category split at GL level (as outlined earlier), in conjunction with the RPEs and FSE assumptions documented in SUP11, allows us to embed the RPE/FSE assumption into each line item of opex data by applying a weighted average RPE/FSE by reference to GL code. We are, therefore, able to re-run the Opex plan on a post-RPE/FSE, replicating the approach used to populate tables on a pre-RPE/FSE basis.

Opex cells in tables ADD1 to ADD13 are therefore populated in the same manner that their corresponding Tables1a equivalents are populated, using the established 'Opex workbooks'. These workbooks are an established component of our regulatory reporting.

New workbooks for each year of AMP8 are created and linked into the ADD tables. We then re-state the 'Amount' (£) entry for each Opex line item input. The re-statement is an adjustment to include the cumulative net price change (arising from RPE and FSE).

#### Cost weightings (2025-30)

Opex cost weightings are now an output of the RPE/FSE process – not an input – reflecting the costs in the AMP8 timeline. These are extracted from the detailed Opex workbooks underpinning the Opex for each year

of AMP8 and calculated on a pre-RPE/FSE basis. Capex cost weightings are as explained above, reflecting historical assessments of Capex activity.

We set out the combined cost weighting below in the table below.

**Figure 1. Cost weightings**

<b>TOTEX</b>				
<b>TOTAL TOTEX (FULL AMP8)</b>				
<b>TOTAL</b>	<b>Water</b>	<b>WWN+</b>	<b>BR</b>	<b>Retail</b>
Labour	49.04%	48.28%	53.38%	55.48%
Energy	3.47%	5.65%	-4.05%	0.91%
Chemicals	1.17%	1.23%	5.58%	0.01%
Materials, Plant & Equipment	34.84%	40.12%	38.29%	1.43%
Other	11.48%	4.71%	6.80%	42.17%
<b>TOTAL</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

<b>OPEX</b>				
<b>TOTAL OPEX (FULL AMP8)</b>				
<b>TOTAL</b>	<b>Water</b>	<b>WWN+</b>	<b>BR</b>	<b>Retail</b>
Labour	56.71%	57.84%	68.48%	54.68%
Energy	10.06%	22.12%	-11.34%	0.93%
Chemicals	3.40%	4.83%	15.64%	0.01%
Materials, Plant & Equipment	6.04%	11.34%	17.16%	1.18%
Other	23.79%	3.86%	10.05%	43.21%
<b>TOTAL</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

<b>CAPEX</b>				
<b>TOTAL CAPEX (FULL AMP8)</b>				
<b>TOTAL</b>	<b>Water</b>	<b>WWN+</b>	<b>BR</b>	<b>Retail</b>
Labour	45.00%	45.00%	45.00%	86.15%
Energy	0.00%	0.00%	0.00%	0.08%
Chemicals	0.00%	0.00%	0.00%	0.00%
Materials, Plant & Equipment	50.00%	50.00%	50.00%	11.12%
Other	5.00%	5.00%	5.00%	2.65%
<b>TOTAL</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>