# Default Tariff Cap: Policy Consultation

# Appendix 4 – Bottom-up cost assessment

## Consultation - supplementary appendix

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| **Publication date:** | 25 May | **Contact:** | Anna Rossington |
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**Overview:**

The energy market works well for consumers who shop around. Suppliers compete for these engaged consumers, offering low prices to gain or retain their custom.

But the retail energy market is not working for consumers who remain on their supplier's default tariff. Our work, and the Competition and Markets Authority's investigation, has shown there is little competitive constraint on the prices suppliers charge these consumers. As a result, they are paying more than they should be.

To address this problem, Government has introduced legislation into Parliament which would require Ofgem to design and put in place a temporary cap on all standard variable tariffs and fixed-term default tariffs. We anticipate that Parliament will approve the Domestic Gas and Electricity (Tariff Cap) Bill in the summer, and the default tariff cap will come into force at the end of 2018.

We are now consulting on how we might design and implement the default tariff cap. This supplementary appendix to the main consultation document sets out our proposals in relation to how we would estimate an efficient level of costs using a bottom-up assessment of suppliers costs. This document is aimed at those who want an in-depth understanding of our proposals. Stakeholders wanting a more accessible overview should refer to the main consultation document.

# Associated documents

**Policy consultation for Default Tariff Cap – Overview**
https://ofgem.gov.uk/system/files/docs/2018/05/default_tariff_cap_-_policy_consultation_-_overview.pdf

**Links to supplementary appendices**

- Appendix 1 - Market basket:
  https://ofgem.gov.uk/system/files/docs/2018/05/appendix_1_-_market_basket.pdf
- Appendix 2 - Adjusted version of the existing safeguard tariff
  https://ofgem.gov.uk/system/files/docs/2018/05/appendix_2_-_adjusted_version_of_the_existing_safeguard_tariff.pdf
- Appendix 3 – Updated competitive reference price
  https://ofgem.gov.uk/system/files/docs/2018/05/appendix_3_-_updated_competitive_reference_price.pdf
- Appendix 4 – Bottom-up cost assessment
  https://ofgem.gov.uk/system/files/docs/2018/05/appendix_4_-_bottom-up_cost_assessment.pdf
- Appendix 5 – Updating the cap over time
  https://ofgem.gov.uk/system/files/docs/2018/05/appendix_5_-_updating_the_cap_over_time.pdf
- Appendix 6 – Wholesale costs
  https://ofgem.gov.uk/system/files/docs/2018/05/appendix_6_-_wholesale_costs.pdf
- Appendix 7 – Policy and network costs
  https://ofgem.gov.uk/system/files/docs/2018/05/appendix_7_-_policy_and_network_costs.pdf
- Appendix 8 – Operating costs
  https://ofgem.gov.uk/system/files/docs/2018/05/appendix_8_-_operating_costs.pdf
- Appendix 9 – EBIT
  https://ofgem.gov.uk/system/files/docs/2018/05/appendix_9_-_EBIT.pdf
- Appendix 10 – Smart metering costs
  https://ofgem.gov.uk/system/files/docs/2018/05/appendix_10_-_smart_metering_costs.pdf
- Appendix 11 – Headroom
  https://ofgem.gov.uk/system/files/docs/2018/05/appendix_11_-_headroom.pdf
- Appendix 12 – Payment method uplift
  https://ofgem.gov.uk/system/files/docs/2018/05/appendix_12_-_payment_method_uplift.pdf
- Appendix 13 – Renewable tariff exemption
  https://ofgem.gov.uk/system/files/docs/2018/05/appendix_13_-_renewable_tariff_exemption.pdf
- Appendix 14 – Initial view on impact assessment
  https://ofgem.gov.uk/system/files/docs/2018/05/appendix_14_-_initial_view_on_impact_assessment.pdf

# Document map

This supplementary appendix to the main consultation document set out our proposals in relation to how we could estimate an efficient level of costs using a bottom-up assessment of suppliers costs (option 4 in our main consultation document).

Figure 1 below provides a map of the default tariff cap documents published as part of this consultation.

**Figure 1: Default tariff cap – policy consultation document map**

## Overview Document

### Supplementary Appendices

| Approaches for calculating efficient costs | Discussions of specific categories of costs |
|---|---|
| 1. Market basket<br>2. Adjusted version of the existing safeguard tariff<br>3. Updated competitive reference price<br>4. Bottom-up cost assessment | 6. Wholesale costs<br>7. Policy and network costs<br>8. Operating costs<br>9. EBIT<br>10. Smart metering costs |

| Reflecting trends in efficient costs | Potential additional cap elements |
|---|---|
| 5. Updating the cap over time | 11. Headroom<br>12. Payment method uplift |

| Scope of the default tariff cap | Impact assessment |
|---|---|
| 13. Potential renewable exemption | 14. Initial view on impact assessment |

*Links to these documents can be found in the 'Associated documents' section of this document*
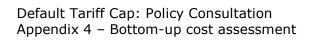
# Contents

# 1. Overview of the approach

In this chapter, we discuss the benefits and challenges of using a bottom-up cost assessment to estimate suppliers' efficient costs.

1.1. As described in the main consultation document, we will set the default tariff cap to reflect an efficient level of costs. Estimating an efficient level of costs is a challenge that is common to situations where there is regulation of the tariffs or revenues that companies are allowed to charge or earn.

1.2. Our estimate of efficient costs will include some uncertainty, as we face several inherent challenges. The efficient level of costs is not something we can directly observe; it will be less than many suppliers' actual costs. Suppliers' costs may also differ for reasons that are not related to their relative inefficiency (eg due to differences in their customer bases). Suppliers also face costs, particularly when purchasing energy, which are difficult to anticipate when setting the level of the default tariff cap. The data we rely on introduces uncertainty too.

1.3. In our first working paper[1] (published on 12 March 2018), we described four different approaches which could be used to estimate an efficient level of costs for the purposes of setting the initial level of the default tariff cap. In this appendix we discuss the fourth of these approaches – a bottom-up assessment of costs.

1.4. Under this approach, we would calculate the level of the default tariff cap by estimating efficient allowances for each element of costs, and then summing these together to derive the overall level of the cap. This approach is similar in nature to that most commonly used in price control settings.

1.5. The advantage of this approach compared to setting the default tariff cap with reference to competitive prices is that it gives us confidence as to exactly which costs are included in the benchmark, and how each element of costs is being treated under the cap. It avoids the key challenge of the price-based approaches, that the reference prices may not provide a valid comparator that can be used for setting the cap for the entire market, due to the specific circumstances or pricing strategies of the benchmark companies. In response to our first working paper, a number of respondents stated their preference for a bottom-up approach for these, or similar, reasons.

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[1] https://www.ofgem.gov.uk/system/files/docs/2018/03/working_paper_1_-_design_issues_-_for_publication.pdf

1.6. The main drawback of a bottom-up approach is the difficulty of estimating an efficient allowance for each element of costs. While we are able to collect data on companies' historic and forecasted costs, and then make adjustments to reflect our estimates of the companies' efficiency, doing so is subject to various challenges. For example:

- It requires us to reach a single view on what is an efficient level of costs, in a market with over 60 suppliers, each with different histories and business models.

- Comparable cost information for each company will generally not be held in the exact form required (for example due to differences in accounting definitions)

- In many cases, it will not be possible to observe the relevant economic variables, only to estimate them using imperfect data. Related to this is the fact that it will often not be possible to identify the element of costs associated with a particular activity, making it difficult to standardise across companies.

- Because of the complexity of the data, there is a risk of either double counting, or excluding certain types of costs.

- Rather than expenditure on assets and maintenance, this approach requires us to benchmark the costs of providing services and overheads – which is more challenging to do.

1.7. It may be possible to reduce some of these risks through collecting more detailed or better information on costs. However, it will never be possible to resolve them completely. In part, this is because there is a large asymmetry of information, and suppliers will always have greater insight into their own costs than the regulator.

**QA4.1** Do you agree with our assessment of the advantages and disadvantages of a bottom-up approach to estimating an efficient level of costs?
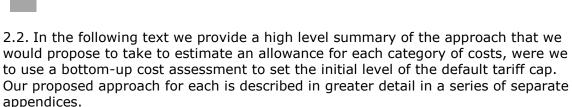
# 2. Categories of costs

In this chapter, we describe the different categories of costs that we could include in a bottom-up assessment, and summarise the approach that we propose to take to estimating each component.

**The categories of suppliers' costs**

2.1. A bottom-up approach requires us to define which categories of costs should be included in the level of the default tariff cap, and how these should be organised. We propose to use the categories of costs set out in Table A4.1.

**Table A4.1: Components of efficient costs under a bottom-up cost assessment**

| Category | Summary of main expenditures |
|---|---|
| Wholesale costs | • The direct cost of gas and electricity contracts for delivery in the price cap period<br>• Imbalance charges, trading and transaction fees<br>• Capacity market (CM) payments |
| Network costs | • All gas and electricity transmission and distribution charges<br>• Balancing services use of system (BSUoS) charges |
| Environmental and social obligations (policy) costs | • The costs associated with schemes to support renewable and low-carbon electricity generation (Renewable Obligation (RO), Contracts for Difference (CfD), Feed in Tariffs (FiT))<br>• The costs associated with the Energy Company Obligation (ECO), supporting energy efficiency<br>• The costs of providing support to fuel poor customers under the Warm Home Discount (WHD) scheme<br>• The costs of providing assistance for areas with high electricity distribution costs (AAHEDC) |
| Operating costs | Companies' internal operating costs, including:<br>• metering (including smart metering)<br>• sales and marketing (including third party commissions paid to price comparison websites or brokers)<br>• billing and bad debt<br>• customer service<br>• central overheads (including IT)<br>• Data Communications Company (DCC) charges, charges to fund Elexon and Xoserve, and any other obligatory industry charges that specifically relate to supply<br>• depreciation and amortisation charges associated with previous capital expenditure |
| Standard credit uplift | • An uplift (for standard credit customers only) reflecting the additional costs of supplying this payment type |
| Profit margin | • A profit margin reflecting a normal return on capital. |

2.2. In the following text we provide a high level summary of the approach that we would propose to take to estimate an allowance for each category of costs, were we to use a bottom-up cost assessment to set the initial level of the default tariff cap. Our proposed approach for each is described in greater detail in a series of separate appendices.

**Wholesale costs**

2.3. We discuss our proposed approach to estimating wholesale costs in **Appendix 6**. As described in that appendix, under a bottom-up approach we would propose to set an initial allowance for wholesale costs with reference to the prices of forward contracts for delivery in the base period, as observed 2016-17. This would be carried out using a version of the Competition and Markets Authority's (CMA) model used to update the existing safeguard tariffs to reflect trends in wholesale prices. We are also considering including additional allowances to reflect the costs of imbalance and forecast error; shaping; and trading and transaction costs.

2.4. We would also include an allowance for capacity market payments within wholesale costs, estimated using data on the total costs of the scheme for the base period, and the share of these payments falling to domestic customers.

**Network costs**

2.5. We discuss our proposed approach to estimating network costs in **Appendix 7**. We propose to set the allowance for network charges using the same model as is used under the existing safeguard tariffs – ie by combining published charges with assumptions about load profiles to estimate the charges incurred in each region in pounds (£) per customer. In our view, basing this component of the default tariff cap on the network companies' charging statements provides the most reliable way of estimating the scale of these costs for a given customer type.

**Environmental and social obligations**

2.6. The approach that we propose to use to estimate the costs associated with environmental and social obligations (policy costs) under a bottom-up assessment of costs is set out in **Appendix 7**. In general, this involves using data published by the administrators of the different schemes to calculate the cost per customer and per MWh in the base period.

2.7. Given the proposed methodology, we would only expect these estimates to include the administrative costs that a supplier incurs in relation to the scheme in the case of FiTs and the ECO. For other schemes – in particular the WHD – these (generally indirect) costs would be included alongside operating costs.

2.8. Note that costs associated with the smart meter rollout would be captured under the allowance for operating costs. Although suppliers are obligated under the supply licence to take all reasonable steps to complete the rollout, we do not consider it

appropriate to split these costs out into a separate category, given how intrinsically they are linked with the core supplier functions of metering, billing and providing customer service. We discuss these costs in more detail in **Appendix 10**.

**Operating costs**

2.9. We propose to set the allowance for operating costs with reference to information on suppliers' costs in previous financial years. Historically there have been large differences in operating costs between suppliers, and therefore we will need to form a view on what is an efficient level of costs. We discuss how we intend to estimate suppliers' historic operating costs, and benchmark them, in **Appendix 8**.

2.10. We considered including a separate category to include an allowance for charges suppliers incur to fund the activities of Xoserve (the central data service provider for the gas market) and Elexon (the body responsible for administering balancing and settlement in the electricity market), based on charging statements.[2]

2.11. However given the array of different inputs into the overall scale of these costs (eg some being per month, other per transaction, others per meter read), doing so would be complex and would require us to make significant assumptions. Instead, we therefore propose to include these charges within the allowance that we set for total operating costs, based on an average of suppliers' reported costs in previous financial years.

**Standard credit uplift**

2.12. For customers paying via standard credit, we propose to adjust the benchmark to reflect the additional costs of serving customers using this payment method. We discuss this in more detail in **Appendix 12.**

**Profit margin**

2.13. Finally, we propose to include an allowance for suppliers to earn a normal rate of return on capital employed. We would set this allowance with reference to the estimates prepared by the CMA during its market investigation.[3] We discuss this in more detail in **Appendix 9**.

**QA4.2:** Do you agree with our proposed approach to categorising different costs under a bottom-up cost assessment approach to setting the default tariff cap?

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[2] See for example 2017/18 Schedule of Main and SVA Specified Charges for Elexon, and Central Data Services Provider Annual Charging Statement For The Period 1st April 2017 – 31st March 2018 for Xoserve.
[3] CMA Energy market investigation Final Report, 2016

# 3. Consultation response and questions

We want to hear from anyone interested in this document. Send your response to the person or team named at the top of the front page.

We've asked for your feedback in each of the questions throughout it. Please respond to each one as fully as you can. The full list of consultation questions is available in Chapter 7 in the main consultation document.

Unless you mark your response confidential, we'll publish it on our website, www.ofgem.gov.uk, and put it in our library. You can ask us to keep your response confidential, and we'll respect this, subject to obligations to disclose information, for example, under the Freedom of Information Act 2000 or the Environmental Information Regulations 2004. If you want us to keep your response confidential, you should clearly mark your response to that effect and include reasons.

If the information you give in your response contains personal data under the Data Protection Act 1998, the Gas and Electricity Markets Authority will be the data controller. Ofgem uses the information in responses in performing its statutory functions and in accordance with section 105 of the Utilities Act 2000. If you are including any confidential material in your response, please put it in the appendices.

**Chapter 1 – Overview of the approach**
**Question A4.1**: Do you agree with our assessment of the advantages and disadvantages of a bottom-up approach to estimating an efficient level of costs?

**Chapter 2 – Categories of costs**
**Question A4.2** Do you agree with our proposed approach to categorising different costs under a bottom-up cost assessment approach to setting the default tariff cap?