Oxera's review of RATEL's proposed Economic Replicability Test methodology

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Prepared for Serbia Broadband d.o.o

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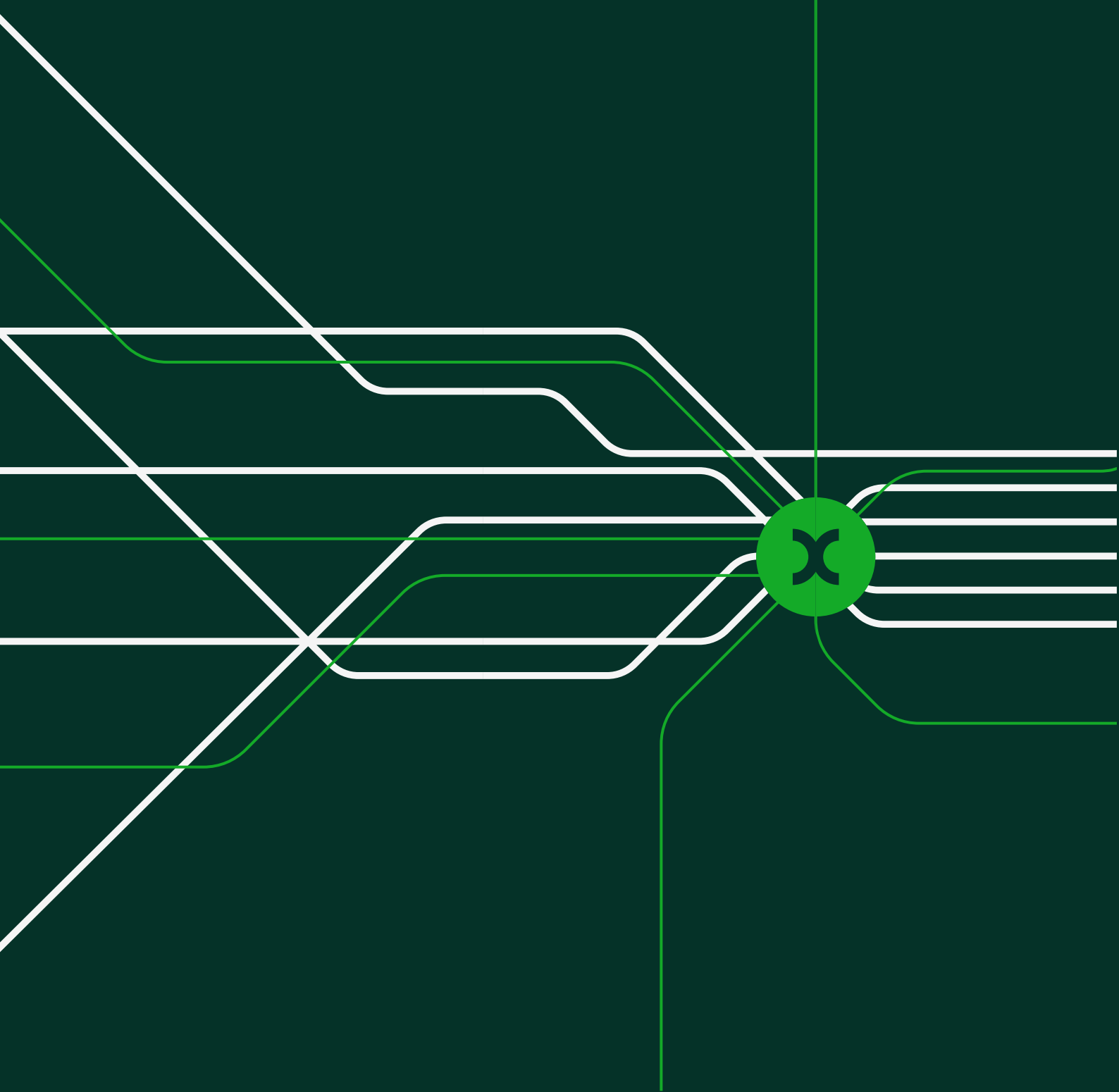


Contents

Figures and Tables

1 Introduction and summary

Oxera has been asked by Serbia Broadband d.o.o ('SSB') to provide an economic assessment of RATEL's proposed approach to applying an economic replicability test (ERT) in the context of symmetric wholesale access obligations.

Our report is structured as follows:

- In section 1.1 below, we briefly outline the regulatory context of symmetric wholesale access obligations in Serbia and under the European Electronic Communications Code ('EECC'), and how it relates to access obligations based on findings of Significant Market Power ('SMP');

- In section 1.2 below, we summarise the key findings from our assessment of RATEL's proposed ERT Methodology;

- In sections 2–4, we present our detailed assessment of: the key assumptions and parameters of ERT (section 2); RATEL's proposed implementation of the discounted cash flow ('DCF') profitability approach (section 3); and the treatment of specific retail services in the ERT (section 4).

1.1 Regulatory context: symmetric regulation

The proposed ERT will be applied in the context of symmetric wholesale access obligations, provided for under Article 58 of the Law on Electronic Communications ('the Law').[1] The Draft Regulation on the conditions of access provided in accordance with Article 58 are specified separately.[2] The Draft Regulation enables RATEL to impose wholesale access obligations on any business entity with an electronic communications network (hereafter the 'Rightsholder'), where it determines that there are high and non-transitory economic and/or physical barriers which prevent an access seeker (hereafter the 'Applicant') from replicating the network elements for which it has requested access.[3]

[1] Official Gazette of RS, No. 35/23, Article 58.
[2] RATEL (2023), 'Draft Regulation considering the access conditions to the first or beyond first distribution point and the manner of cost allocation' 26 September [translated into English] (hereinafter referred to as the 'Draft Regulation'). Available at: https://bit.ly/3XbcXek [accessed 20 August 2024].
[3] Draft Regulation, Article 7.

In general, we would expect the provision of wholesale access under the Draft Regulation to be relatively limited. As explained in the Draft Regulation, in determining whether there are economic barriers, RATEL should take into account any existing wholesale access products that are available, including those provided on a **regulated** or commercial basis.[4] As Telekom Srbija ('TS) is subject to SMP-based wholesale access obligations, there may be limited cases in which the criteria for providing wholesale access under the Draft Regulation are met.

The EECC has a similar provision to impose symmetric access in certain circumstances, via Article 61(3).[5] Symmetric wholesale access obligations and obligations based on SMP can be imposed in parallel, provided certain criteria are met.

RATEL proposes to use the ERT in two scenarios:[6]

- **Scenario 1**: where the Rightsholder and Applicant negotiate but do not reach an agreement on the price or the access point;
- **Scenario 2:** where the Rightsholder and Applicant do not negotiate the access price and access point, or the Rightsholder refuses to provide access to the Applicant at any point.

In scenario 1, the ERT will be used to test the economic replicability of retail services at each network access point, taking into account the initially negotiated wholesale access prices.[7] In scenario 2, RATEL will provide the Rightsholder with the opportunity to propose a wholesale access price, and, if it does so, the same approach as in scenario 1 will be followed.[8] If no price is proposed, the ERT will be used to determine the maximum wholesale price that ensures economic replicability for the Applicant.[9]

RATEL does not explicitly state the regulatory objectives it is seeking to achieve through the draft symmetric regulation, and the associated ERT,

[4] Draft Regulation, Annex 1.
[5] European Commission (2018), 'Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code', 17 December.
[6] RATEL (2024), 'Methodology for Conducting an Economic Replication Test – ERT', July, p. 3–4 [translated into English]. Hereafter referred to as the 'ERT Methodology'.
[7] ERT Methodology, p. 3.
[8] ERT Methodology, p. 4.
[9] ERT Methodology, p. 4.

which is applied in parallel with the ex ante MST (also an ERT) under the SMP obligations imposed on TS.[10]

We observe that the policy principle of symmetric access in the EECC is the promotion of sustainable competition in the interest of end-users, connectivity, and efficient investment, in particular in very high capacity networks, by giving regulators the possibility to ensure access to non-replicable infrastructure where justified and proportionate.[11]

In the context of wholesale access provided under the draft symmetric regulation, and in designing the ERT, RATEL's proposal would therefore benefit from clarification over how the justification and proportionality criteria would be addressed. In particular, there is a trade-off between:

- the protection of, and promotion of entry by, Applicants who may be of a smaller scale, and thus may face higher costs, than the Rightsholder (though, in theory, it could also be the case that the Applicant is of a larger scale than the Rightsholder);
- ensuring that the investment case of the Rightsholder (which may not hold SMP), and investment incentives more widely, are not undermined.

Taking this trade-off into account when determining how the ERT should be specified will allow RATEL to ensure that wholesale access provided under the draft symmetric regulation is consistent with its intended regulatory and policy objectives.

Given its status as an EU candidate country, Serbia has to harmonise its regulatory framework with that of the EU, including the associated EU guidance. Indeed, RATEL states that it has taken into account the best practices identified in the European Commission Gigabit Recommendation,[12] and the Body of European Regulators for Electronic Communications ('BEREC') guidelines on the application of Article 61(3) of the EECC (hereafter the 'BEREC Guidelines').[13]

[10] TS is subject to SMP obligations in the: Wholesale Central Access market (source: RATEL (2023), SMP Designation Decision No 1-03-349-32/22-14 (4 May) 2023); Wholesale Local Access Market (source: RATEL (2022), 'SMP Designation Decision No 1-03-349-1/22-5 (11 June) 2022').
[11] BEREC (2020), 'BEREC Guidelines on the Criteria for a Consistent Application of Article 61 (3) EECC', 10 December, para. 3.
[12] European Commission (2024), 'Commission Recommendation of 6.2.2024 on the regulatory promotion of gigabit connectivity', 6 February.
[13] BEREC (2020), 'BEREC Guidelines on the Criteria for a Consistent Application of Article 61 (3) EECC', 10 December.

In relation to several aspects of the ERT Methodology, RATEL refers to the European Commission's recommended parameters for an ex ante ERT pursuant to Article 74 of the EECC.[14] This recommendation relates specifically to the application of an ex ante ERT applied to an operator that has been identified as holding SMP in a defined relevant market, pursuant to Article 68 of the EECC. While these recommendations can provide a useful framework for designing the ERT, importantly, it should not be interpreted as a formal recommendation in respect of wholesale access obligations applied in the context of symmetric regulation, which does not require a finding of SMP. In addition, as noted above, there are additional considerations that should be taken into account regarding the specific nature of non-SMP operators.

1.2 Summary of Oxera's assessment of RATEL's proposed ERT methodology

We have performed an economic assessment of RATEL's proposed ERT Methodology. We agree, in principle, with RATEL's proposed approach to the following elements of the ERT: cost standard; depreciation method; and geographic segmentation.

However, we have identified instances in which RATEL's proposed approach would benefit from further consideration and/or clarity, and aspects of the proposed ERT methodology which contain flaws and are not in line with economic best practice.

1 **The proposed efficiency standard**. RATEL proposes to use an adjusted-EEO approach in which the Rightsholder's costs are adjusted to the scale and efficiency of the Applicant. This may be a valid approach if RATEL is seeking to promote entry by small scale access seekers through the draft symmetric regulation. However, it is important that RATEL recognises the potential adverse impacts this could have on the investment case of Rightsholders, which may not have SMP and have chosen to commercially deploy network infrastructure, and the wider network investment incentives (as specified in the Draft Regulation).[15]

   One aspect of this approach that could increase the risk of there being an adverse effect is the proposal to not specify a minimum scale, and instead simply use the Applicant's scale. Given there are many retail operators with a very small scale (of less than 5%), this

[14] European Commission (2024), 'Commission Recommendation of 6.2.2024 on the regulatory promotion of gigabit connectivity', 6 February, Annex 3.
[15] Draft Regulation, Appendix 2.

could result in the scenario where there are significant adjustments to the Rightsholder's costs, which could risk undermining its investment case.

If RATEL chooses to adopt the adjusted-EEO approach, we consider there should be a minimum scale of **at least 15–20%,** and that there could be a case for using a higher scale if there is a risk that this assumed scale risks undermining the Rightsholder's business case.

2 **The proposed level of aggregation**. RATEL appears to propose a product-by-product approach. However, it has not explicitly considered the different approaches to the level of aggregation that can be adopted, or justified its decision to use a product-by-product approach. While this may be a valid approach (depending on RATEL's objective), RATEL should be cognisant of the trade-off it is making between the promotion of entry by Applicants against ensuring that the investment cases of Rightsholders (which may not hold SMP), and network investment incentives more widely, are not undermined. RATEL should also consider the proportionality of this approach, which can be onerous and complex, in the context of symmetric wholesale access obligations.

3 **The relevant time period used in the DCF**. RATEL proposes to use the average customer lifetime ('ACL') as the relevant time period for the DCF. However, RATEL is unclear on what value the ACL will take. We consider that the ACL should be based on observed market data on the average customer tenure with an operator (rather than the maximum contract period). Whether RATEL uses the ACL of the Rightsholder or Applicant depends on how it chooses to balance the promotion of entry by Applicants against the ensuring that the investment cases of Rightsholders, and network investment incentives more widely, are not undermined.

4 **RATEL's proposed application of the WACC and allowance for a reasonable return**. RATEL proposes to apply a DCF approach to assessing profitability in the ERT. We consider that there are conceptual flaws in RATEL's proposed approach (which we also identified in our previous report for SBB on RATEL's proposed ex ante margin squeeze test (MST) methodology).[16] Under RATEL's proposed approach, given that it allows for a reasonable profit by discounting the flows of costs and revenues by the WACC, the

[16] Oxera (2024), 'Oxera assessment of RATEL's proposed margin squeeze methodology' 17 May, Section 2.3.2.

inclusion of the additional 'reasonable profit' parameter, and the application of the WACC to the network element costs (with the exception of depreciation), is incorrect and will overestimate the required level of profitability needed to ensure economic replicability.

In addition, while RATEL's approach of converting the present value of costs and revenues into monthly annuities is valid in principle, there is an inconsistency in the assumed compounding of the WACC. To keep the equivalence in the WACC rate, RATEL should determine the interest rate that, compounded monthly, results in an annual equivalent rate equal to the WACC, and then use this in the monthly annuity formulae.

5 **The treatment of mobile services**. RATEL proposes to exclude mobile service costs and revenues when applying the test to products which include mobile products. As identified in our previous report for SBB,[17] this approach is not appropriate as it risks finding that the test would be passed when, in practice, it would fail if all the relevant mobile costs and revenues were included. We consider that all costs and revenues should be included in the assessment of bundles which include mobile services. Failing to do so means the ERT will be mis-specified for these products.

6 **The treatment of TV content costs**. RATEL proposes to include TV content costs in the ERT for retail products that include a television service, which is appropriate. However, RATEL does not provide any further detail on how it proposes to include these TV content costs in the ERT in practice. Given the complexity associated with TV content costs, we consider there would be benefit in RATEL providing further detail on this issue in the ERT Methodology. In doing so, RATEL should consider the need to ensure that the level of TV content costs included in each product-level test accurately reflect the costs incurred in providing the TV service included with each retail product, and in what cases scale adjustments may be appropriate, having regard to the underlying rights agreements.

[17] Oxera (2024), 'Oxera assessment of RATEL's proposed margin squeeze methodology' 17 May, Section 3.

2 Assumptions and parameters of the ERT

2.1 Our understanding of RATEL's proposed approach

RATEL specifies the key assumptions and parameters it will apply in the ERT model. We understand that RATEL proposes the following:

- **efficiency standard**: adjusted equally efficient operator ('EEO') standard, in which the Rightsholder's costs are adjusted to the scale and efficiency of the Applicant;[18]
- **cost standard**: long-run incremental cost plus (LRIC+) or, if this is not available, the fully allocated costs ('FAC');[19]
- **depreciation method**: straight-line depreciation approach;[20]
- **profitability approach** (referred to as the method of cost and revenue allocation over time): DCF approach;[21]
- **geographic segmentation**: no separate models for geographic segments due to national pricing, but when calculating the Applicant's own network costs, different geographic segments may be taken into account if necessary.[22]

RATEL has not separately considered or justified its approach to the **level of aggregation** in the ERT, which determines how the ERT will be applied to the range of retail products and services offered. However, our understanding is that RATEL proposes to use a product-by-product approach,[23] which tests the economic replicability of each retail product individually, based on the retail products (and the associated prices) offered by the Rightsholder.[24] Our assessment below is based on our understanding that RATEL proposes a product-by-product approach. However, if RATEL is proposing to use a different approach, for example

[18] ERT Methodology, section, 3.1.
[19] ERT Methodology, section, 3.2.
[20] ERT Methodology, section, 3.3
[21] ERT Methodology, section, 3.4.
[22] ERT Methodology, section, 3.5.
[23] Our understanding is based on RATEL's explanation that 'retail sales services can be offered by business entities as part of service packages or individually, and both cases are subject to the ERT model' and that the 'model can be applied to individual services or any combination of them available within a package' [translated into English] (source: ERT Methodology, p 8). We also note that RATEL has not explicitly discussed any other approaches to the level of aggregation, such as a 'portfolio' or 'combinatorial' approach. Therefore, we understand that the ERT model will be applied to individual services (internet, fixed telephony, television and mobile telephony) and to individual 'bundle' products which include combinations of these services (i.e. dual-play, triple-play and quad-play products).
[24] Our understanding is based on RATEL's explanation that for 'the purposes of conducting the ERT test, the total retail revenue per package/service needs to be converted to the monthly revenue per user generated by the rightsholder' [translated into English] (source: ERT Methodology, p. 8).

a portfolio approach, it should clarify and justify this, explaining how it would be implemented in the ERT model.

2.2 Oxera's assessment of RATEL's proposals

We agree, in principle, with RATEL's proposed approach to the following elements of the ERT: cost standard; depreciation method; and geographic segmentation.

Below, we present our assessment of RATEL's proposed assumptions and parameters over which we have specific comments, including the:

- efficiency standard (section 2.2.1);
- level of aggregation (section 2.2.2);
- relevant time period used in the DCF (section 2.2.3).

In section 3, we present our detailed assessment of RATEL's proposed implementation of the profitability approach.

2.2.1 Efficiency standard

In an ERT, this assumption informs the level of efficiency assumed when calculating the downstream costs of the access seeker. The choice of the efficiency standard should be driven by the policy objectives of the regulator and the specific conditions of the market.

For example, in the context of an ex ante MST applied to an operator with SMP, if the regulator has the objective of promoting entry in the retail market, it may adopt an efficiency standard which enables access seekers that have relatively lower economies of scale than the SMP operator, and therefore have higher costs, to enter to compete with the SMP operator. This can be achieved by adopting a reasonably efficient operator ('REO') or adjusted-EEO standard. Alternatively, if the regulator has the objective of protecting retail competition from access seekers that are as efficient as the SMP provider, it may chose an EEO standard.

In its ERT Methodology, applied in the context of symmetric regulation, RATEL considers three options for the efficiency standard:[25]

1 an **EEO** approach, based on the network structure of the Rightsholder, which will rely on the **Rightsholder's** costs;
2 an **REO** approach, based on the retail network costs and sales processes of the **Applicant**;

[25] ERT Methodology, p. 5.

3 an **adjusted-EEO** approach, in which the Rightsholder's costs are adjusted to the scale and efficiency of the **Applicant**.

RATEL proposes to adopt an adjusted-EEO approach, which it considers is more suitable for the domestic Serbian market.[26] In justifying this position, RATEL references the BEREC Guidelines. The original text in the BEREC guidelines states that regulators 'can use assumptions on the characteristics of a **hypothetical generic efficient access seeker** including a corresponding **share of prospective customers** in the respective area, and which type of product the access seeker is expected to provide for end-users and, also if applicable, wholesale customers' [emphasis added].[27]

We first note that the BEREC Guidelines referenced by RATEL do not make a specific recommendation in relation to the efficiency standard that should be used to assess economic replicability in relation to wholesale access provided under Article 61(3) of the EECC. In particular, it does not recommend that the Rightsholder's costs should be adjusted to reflect those of the Applicant, which may be of a smaller scale, and thus may face higher costs, than the Rightsholder.[28]

In determining which efficiency standard may be appropriate, it is important to recognise the trade-offs this involves between: (i) protecting and/or promoting entry by Applicants that may be of a smaller scale, and thus may face higher costs, than the Rightsholder; and (ii) ensuring that the investment case of the Rightsholder, and investment incentives more widely, are not undermined.

The potential impact on network investment incentives are recognised in the Draft Regulation. For example RATEL can reject requests for access if it would jeopardise 'the economic or financial viability of deploying a new network, especially in the case of smaller local projects'.[29] The Draft Regulation goes on to explain that RATEL should consider the impact of providing access on the business plan of the Rightsholder and states that the 'access price should ensure investment sustainability and return on investments'.[30]

[26] ERT Methodology, p. 5.
[27] BEREC (2020), 'BEREC Guidelines on the Criteria for a Consistent Application of Article 61 (3) EECC', 10 December, para. 73.
[28] In theory, it could be the case that the Applicant may be of a larger scale, and thus may face lower costs, than the Rightsholder.
[29] Draft Regulation, Article 9.
[30] Draft Regulation, Appendix 2.

In addition, the BEREC Guidelines and the EECC recognise the need to balance a range of objectives in applying wholesale access under Article 61(3) of the EECC. For example, the EECC states:[31]

Such obligations should be imposed only where justified in order to secure the objectives of this Directive, and where they are objectively justified, transparent, proportionate and non-discriminatory for the purpose of promoting efficiency, sustainable competition, efficient investment and innovation, and giving the maximum benefit to end-users

RATEL proposes that the wholesale network access price offered to the Applicant must, in combination with the Rightsholder's own retail prices,[32] ensure economic replicability for Applicants which may be of a smaller scale, and thus may have higher downstream costs, than the Rightsholder. Although this may be a valid approach if RATEL is seeking to promote entry by small scale access seekers through the draft symmetric regulation, as explained further below, in the Serbian context there are risks of adverse impacts. Namely, this could have an adverse effect on the investment case of Rightsholders, which may not have SMP and have chosen to commercially deploy network infrastructure, and the wider network investment incentives.

In particular, for a given wholesale access price and retail price, the ERT could fail when taking into account the downstream costs adjusted to the Applicant's efficiency and scale, but pass when taking into account the Rightsholder's own downstream costs. In this scenario, the ERT would suggest that the proposed wholesale access price was 'too high' and would need to be lowered to ensure economic replicability for the Applicant, even though the Rightsholder itself, would pass the ERT.

In the extreme, as shown in Box 2.1 below, this could lead to a scenario where the Rightsholder is required to set the wholesale access price **below the costs it would incur** in providing this access to the Applicant. This scenario could be contrary to the Draft Regulation, which states that the 'access price should enable the rights holder to recover incremental costs in facilitating and enabling access'.[33]

[31] EECC, Recital (157).
[32] ERT Methodology, p. 8.
[33] Draft Regulation, Appendix 2.

Box 2.1 Example showing a Rightsholder may be required to set the wholesale access price below its costs

Suppose that the following scenario occurs:

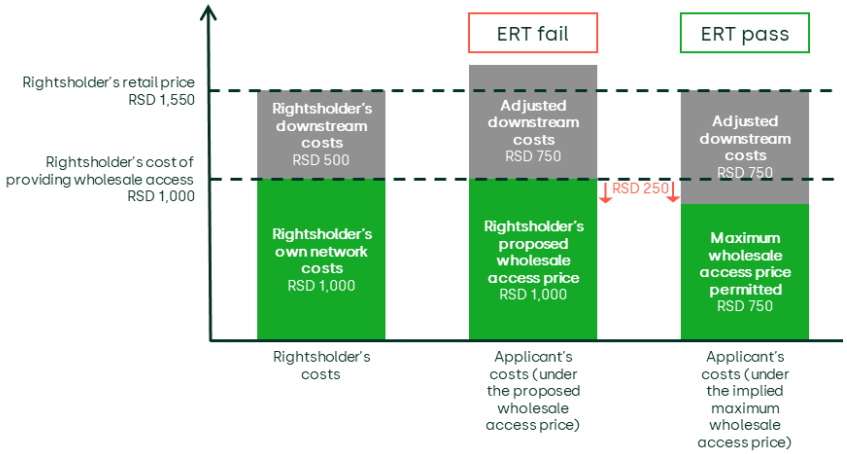
- A Rightsholder's incurs own network costs of RSD 1,000 per user and downstream retail costs of RSD 500 per user in order to supply a fixed broadband service in the retail market. Given these costs, the Rightsholder sets its retail price at RSD 1,500.

- An Applicant then requests wholesale access to the Rightsholder's network, enabling it to supply fixed broadband services at the retail level.

- The Rightsholder proposes a wholesale network access price of RSD 1,000 (i.e. assuming that the costs to the Rightsholder of providing wholesale access are equal to its own network costs).

In line with the proposed ERT Methodology, the Rightsholder's downstream costs (RSD 500) will be adjusted in line with the Applicant's scale. Assume this results in adjusted downstream costs of RSD 750.

The ERT will test whether the margin between the Rightsholder's wholesale access price and its own retail price is sufficient to allow the Applicant to recover the adjusted downstream costs that it would incur in providing this service. In this scenario, the ERT would be found to fail and would suggest that the proposed wholesale access price is 'too high'. To pass the ERT, the wholesale price would need to be lowered by RSD 250, despite the fact that this wholesale access price (RSD 750) is below the costs the Rightsholder would incur in providing wholesale access to the Applicant.



Source: Oxera

While this is only a simple and stylised example, it may not necessarily be implausible given the potentially significant adjustments that could be made to the Rightsholder's downstream costs. Importantly, in its proposed approach RATEL does not specify a minimum scale that the Applicant would need to meet. Rather, RATEL simply proposes to use the Applicant's own scale to adjust the Rightsholder's costs.

As shown in our previous report for SBB, there are many retail providers that operate in the Serbian retail market at a very small scale.[34] For example, SBB has a reasonably large scale (with a 28% retail market share of subscribers in Q4 2023), while the smaller operators have a much smaller scale, each with less than 5% of subscribers in the retail market.[35] This remains the case in Q2 2024.[36] RATEL's proposed approach could therefore lead to scenarios where the scale of the Applicant is significantly below the Rightsholder (for example, TS or SBB), suggesting that significant adjustments would be made the Rightsholder's downstream costs. This could increase the risk that the Rightsholder's business case is undermined. In this regard, it is important to recognise that the Rightsholder may not hold SMP and may have commercially deployed their own network infrastructure.

[34] Oxera (2024), 'Oxera assessment of RATEL's proposed margin squeeze methodology' 17 May, Figure 4.2.
[35] Oxera (2024), 'Oxera assessment of RATEL's proposed margin squeeze methodology' 17 May, Figure 4.2 and p. 31.
[36] In the second Quarter of 2024, SBB had a market share of 26.9% of retail fixed broadband subscribers, while other operators (excluding TS) each held less than 5% of retail fixed broadband subscribers (source: RATEL (2024), 'An overview of the electronic communications market in the Republic of Serbia: the second quarter of 2024', p. 11).

Our previous report for SBB, related to the ex ante MST applied under SMP obligations on TS, recommended that RATEL could achieve the objective of protecting smaller access seekers by adopting an adjusted-EEO approach with an assumed scale of 15–20%, which would also be consistent with European precedents.[37] If RATEL chooses to adopt the adjusted-EEO approach for the ERT applied in the context of symmetric regulation, we consider that the minimum scale should be **at least 15–20%**, and that there could be a case for using a higher scale if there is a risk that this scale adjustment risks undermining the Rightsholder's business case.

When implementing the ERT in practice, RATEL should ensure that it is clear and transparent on the Rightsholder's costs that will be included in the test, as this provides the starting point for estimating the adjusted-EEO costs. RATEL should clearly explain and justify which cost items it proposes to make any scale adjustments to and the assumptions it will use to do so.

2.2.2 Level of aggregation

In an ERT, the level of aggregation determines how the test will be applied to the retail products. Specifically, it determines whether the test will be applied separately to each individual retail product (the 'product-by-product' approach), to a group of retail products in combination (the 'portfolio' approach), or whether it will use a combination of these two approaches (the 'combinatorial' approach).

We understand that RATEL has proposed to adopt a product-by-product approach and will therefore test the economic replicability for each individual retail product (offered by the Rightsholder).[38] However, RATEL has not explicitly considered the different options available to it, nor has it justified why it proposes to use a product-by-product approach.

The appropriate level of aggregation is context specific, and typically depends on the objectives of the regulator. In an SMP context, this is because the level of aggregation determines the degree of flexibility afforded to the SMP operator to recover its common costs. If a LRIC+ cost standard is used, as is proposed by RATEL,[39] a product-by-product approach requires each individual retail product to recover its LRIC plus a share of common costs. Under a portfolio approach, the SMP operator is required to ensure that the LRIC+ of the portfolio recovered across the

[37] Oxera (2024), 'Oxera assessment of RATEL's proposed margin squeeze methodology' 17 May, p. 33.
[38] Footnotes 23 and 24 above explain why we understand this to be RATEL's proposed approach.
[39] ERT Methodology, section, 3.2.

range of products included the portfolio, but it can set the prices of individual retail products in the portfolio below LRIC+ (as long as this is counterbalanced in the pricing of other retail products in the portfolio).

Given the above, a product-by-product approach can offer a greater degree of protection to access seekers, as it ensures each individual retail product is replicable (under a LRIC+ standard). In contrast, a portfolio approach only offers this protection (under a LRIC+ standard) across the combined range of products, but not for individual products.

In the context of the ERT applied in relation to symmetric regulation, the same logic applies, however, the choice in the level of aggregation will affect the level of flexibility afforded to the Rightsholder, and the associated degree of protection provided to the Applicant. Therefore, for the same reasons as outlined in section 2.2.1 above, the appropriate level of aggregation will depend on how RATEL chooses to balance protecting and/or promoting entry by Applicants against ensuring that the investment cases of Rightsholders, and network investment incentives more widely, are not undermined. In considering this, it is important to recognise that the Rightsholder may not hold SMP and may have commercially deployed their own network infrastructure.

One potential challenge with adopting a product-by-product approach is that, where there is no available wholesale access price from the Rightsholder, different maximum wholesale access prices for the same wholesale input may be compatible with the ERT being passed**,** if the Rightsholder has multiple retail prices. This could occur if the difference between the prices for two retail products is larger than the difference in the downstream costs incurred in supplying the two products. We present a stylised example demonstrating this in Box 2.2.

RATEL should confirm the approach it would adopt in this scenario. For example, would RATEL require the wholesale access price to be set at the lower level to ensure replicability across all retail products, or adopt a different approach. In considering this, RATEL should carefully consider the potential impact on the investment case of the Rightsholder, and network investment incentives more widely.

Box 2.2 Example showing that different maximum wholesale access prices for the same wholesale input are compatible with the ERT being passed

Consider a scenario in which an Applicant requests access to a Rightsholder's network at a specific network access point and, if granted, would purchase 'wholesale input X'.

Suppose the Rightsholder does not agree to provide access or propose the price it would charge for wholesale input X. In this case, RATEL may use the ERT to determine the maximum price the Rightsholder could charge for wholesale input X.

To do so, it would use information on (i) the prices that the Rightsholder charges for the retail products that could be supplied using wholesale input X and (ii) the adjusted downstream costs that the Applicant would incur.

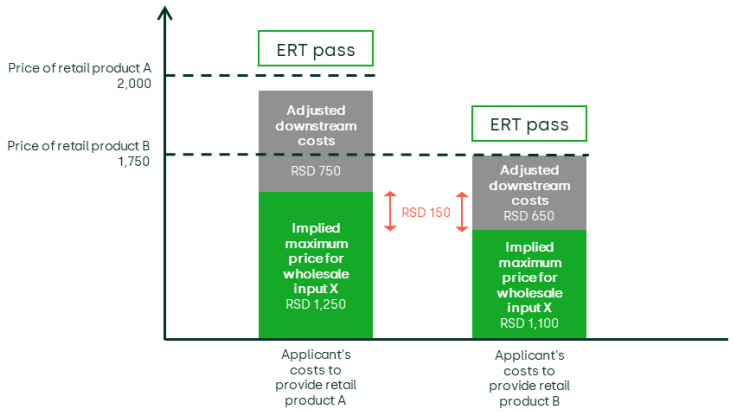
Suppose the Rightsholder supplies two retail products that can be provided using wholesale input X:

- retail product A is offered at a price of RSD 2,000;
- retail product B is offered at a price of RSD 1,750.

Suppose the adjusted downstream costs that the Applicant would incur in supplying each retail product are:

- RSD 750 for retail product A;
- RSD 650 for retail product B.

In this case, the ERT would suggest that the Rightsholder could set the price for wholesale input X at **two different levels**, depending on the retail product referenced, and pass the ERT.



Source: Oxera

In addition to the above, RATEL should consider the proportionality of adopting a product-by-product approach for the ERT applied in the context of symmetric regulation. The product-by-product approach is onerous and complex, and would require RATEL to estimate the cost stack of each individual product offered by the Rightsholder to perform the ERT. Moreover, non-SMP operators that could be subject to the ERT may not have the granular data required that is required for a product-by-product approach, particularly as they are not subject to regulatory accounting obligations.

It is not clear whether it has explicitly considered the issues outlined above in its ERT Methodology. In doing so, it should be mindful of the implication of this choice on the different parties, namely the Rightsholder and the Applicant.

2.2.3 The relevant time period used in the DCF approach

In the context of an ERT that uses a dynamic multi-period analysis, such as the DCF, the relevant time period of the analysis must be specified. This determines the relevant period over which an access seeker has the opportunity to recover its costs to test the economic replicability of the retail services.

RATEL explains that in applying the DCF approach, it will use the ACL as the relevant time period.[40] However, RATEL is unclear in relation to what value the ACL will take. For example, in different places it suggests that the ACL would be based on:

- the maximum contract duration in accordance with the current market practice in Serbia (which RATEL states is 24 months);[41]
- the average period of access duration, which would be calculated using the historic churn data of the Rightsholder.[42]

We agree with RATEL's proposal to use the ACL as the relevant time period in the DCF. This is in line with economic best practice. However, RATEL should clarify what information the ACL will be based on.

We consider the ACL should be based on observed market data on the average customer tenure with an operator, as is suggested by RATEL.[43] Using the maximum contract term in the market, as is also suggested by RATEL, may not be appropriate if customers stay with the same

[40] ERT Methodology, p. 7.
[41] ERT Methodology, pp. 7, 10 .
[42] ERT Methodology, p. 16.
[43] Specifically, RATEL proposes to calculate the ACL as: $1/churn$ (source: ERT Methodology, p. 16).

operator for a different period of time, on average. For example, they may remain with the same operator for a longer period than the maximum contract length, either by remaining with it 'out of contract' or by renewing with the same operator via a new contract. In this case, on average, customers will contribute to the recovery of the costs incurred by the access seeker beyond the initial maximum contract term.

Therefore, using the contract term could lead to the under-recovery or over-recovery of costs in the ERT, if the actual ACL is shorter or longer, respectively, than the minimum contract term. For this reason, using the ACL is in line with economic best practice.

If it calculates the ACL based on actual market data, RATEL will need to determine whether this is based on the Rightsholder's or the Applicant's data. Whether this will have a material impact or not will depend on the extent to which the Rightsholder's and Applicant's ACL terms differ. Ultimately, the decision of which party's ACL to use will depend on the same trade-offs outlined in section 2.2.1 above, and how RATEL chooses to balance protecting and/or promoting entry by Applicants against ensuring that the investment cases of Rightsholders, and network investment incentives more widely, are not undermined.

3 Profitability approach: RATEL's proposed implementation of the DCF

The profitability approach specifies how the costs and revenues will be treated and combined to assess the level of profitability and ensure economic replicability for access seekers. In this section we present:

- our understanding of RATEL's proposed profitability approach;
- our assessment of RATEL's proposed profitability approach.

3.1 Our understanding of RATEL's proposed approach

RATEL has proposed to apply a DCF approach as the basis for assessing profitability in the ERT.[44] In section 4 of the ERT Methodology, RATEL describes how it proposes to implement the DCF to assess the level of profitability and ensure that the wholesale network access price ensures economic replicability for Applicants.

Consistent with the DCF approach, RATEL appears to propose that costs and revenues will be accounted for in the specific month of the ACL in which they occur. This suggests that any upfront, one-off costs and revenues will be accounted for at the start of the ACL, and that recurring costs and revenues will be accounted for in the month of the ACL in which they occur. RATEL explicitly states that this is the case for retail revenues (including any promotions and/or gifts),[45] and for wholesale costs.[46] RATEL does not specify whether this is the case for retail costs. We consider retail costs should be treated in the same manner and would invite RATEL to confirm whether this is the case.

For the costs associated with fixed assets, namely those associated with network elements, RATEL's proposal appear to seek to include the depreciation costs (plus a return on capital) that will accrue over the ACL, rather than including the actual capital expenditure that may occur during the ACL.[47] In principle, this is consistent with the DCF approach applied in the context of an ERT (though, as explained in section 3.2, it is not clear how the proposed allowance for a return on

[44] ERT Methodology, p. 7.
[45] ERT Methodology, p. 10.
[46] ERT Methodology p. 16.
[47] In an ERT, costs associated with a fixed assets, such costs the associated with network elements, should be included on an annualised basis, where the costs are depreciated over the economic life of the asset and allow for a return on capital (equal to the WACC). In our previous report, we presented a stylised example of how this should be applied in a DCF setting (source: Oxera (2024), 'Oxera assessment of RATEL's proposed margin squeeze methodology' 17 May, Box 2.1). RATEL's proposed approach appears to intend to follow this approach in principle.

capital on network elements would be implemented in practice and whether this would allow for an appropriate return on capital).

Having determined the profile of revenues and costs that will occur over the ACL, RATEL proposes to first calculate the 'Net Present Value' ('NPV') of the costs and revenues.[48] To do so, RATEL proposes to sum the flows of costs and revenues over the ACL, discounted by the annual WACC rate. RATEL then proposes to convert the NPV costs and revenues into 'weighted average monthly' costs and revenues using an annuity formula.[49]

Having converted the NPV costs and revenues into monthly annuities, RATEL specifies two formulations of the ERT, which will be applied in two different scenarios:

1. **Scenario 1**: if the Rightsholder's wholesale network access price is available, RATEL will test whether this wholesale access price ensures economic replicability for Applicants.[50]
2. **Scenario 2**: if the Rightsholder's wholesale network access price is not available, RATEL will use the (i) retail revenues, (ii) own network costs and (iii) retail costs to determine the maximum wholesale price that the Rightsholder would be permitted to charge to ensure economic replicability for Applicants.[51]

3.2 Oxera's assessment of RATEL's proposed approach

We consider that the aspects of RATEL's proposed approach described in section 3.1 generally appear to be consistent with the DCF approach to assessing profitability. However, as explained in more detail below, we consider there are flaws in RATEL's proposed application of the WACC, which mean the proposed approach miscalculates the required rate of return and is inconsistent with the DCF approach.

In the previous report we produced for SBB assessing RATEL's proposed ex ante MST Methodology, we identified that there were conceptual flaws in RATEL's proposed application of the WACC and approach to allowing for a reasonable profit.[52] While we recognise that RATEL is now

[48] ERT Methodology, pp. 9, 10, 15, 18, 21. RATEL refers to the present values of revenues and costs as the 'NPV' of revenues and costs. Strictly speaking, the NPV is the difference between the present value of the revenues and the present value of the costs. Hereafter we will refer to these items simply as the 'present value'.
[49] ERT Methodology, pp. 10, 11, 16, 18, 21.
[50] ERT Methodology, section 5.1.
[51] ERT Methodology, section 5.2.
[52] Oxera (2024), 'Oxera assessment of RATEL's proposed margin squeeze methodology' 17 May, Section 2.3.2.

proposing to adopt a DCF approach, as opposed to a period-by-period approach as proposed for the ex ante MST,[53] we consider that the same conceptual flaws that were identified in our previous report are also present in the proposed ERT Methodology.

Our full critique of these flaws, and explanation of how the DCF should be implemented to allow for a reasonable profit, is presented in section 2.3.2 of our previous report.[54] Therefore, the below should be read in conjunction with this section of our previous report. In summary, our previous report identified the following issues, which are also present in the ERT Methodology:

- It is not clear why the calculation of 'Retail' costs includes costs (including a return on capital) related to 'network elements', as these costs should be captured under the 'Own Network' costs and should only be captured once in the ERT.
- It is not clear how the proposed allowance for a return on capital on network elements (specifically the '$NSV * WACC$' term) would be implemented in practice and whether this would allow for an appropriate return on capital.[55]
- RATEL appears to propose to apply the WACC to 'Own Network' and 'Retail' costs *twice*: once through the '$NSV * WACC$' term; then *again* when calculating the amount of 'Reasonable Profit. As such, this miscalculates the required level of returns.
- In calculating the 'Reasonable Profit' RATEL proposes to apply the WACC to the 'Wholesale Network Access Costs' and 'Retail' Costs (which include OPEX), which is conceptually incorrect as these cost categories are not capital costs.

As explained in our previous report, the DCF approach allows for a reasonable profit, which covers for the cost of capital, by discounting the flows of costs and revenues to their present values using a discount rate equal to the WACC.[56] If the NPV of this exercise is zero or positive, then a return equal to or greater than the WACC is generated, ensuring a reasonable profit is allowed for.

[53] RATEL (2024), 'Methodology of applying the market squeeze test to standalone and bundled service pricing', p. 6.
[54] Oxera (2024), 'Oxera assessment of RATEL's proposed margin squeeze methodology' 17 May, Section 2.3.2.
[55] As noted in the first bullet above, it is not clear why the costs (including a return on capital) for 'network elements' are included in the 'Retail' costs in the first place.
[56] Oxera (2024), 'Oxera assessment of RATEL's proposed margin squeeze methodology' 17 May, pp. 15–16.

RATEL should, in theory, achieve this through the 'step 1' formulae in its proposed ERT Methodology (which discounts the flows of costs and revenues to their present value using the WACC). Given this, the inclusion of the additional 'reasonable profit' parameter, and the application of the WACC to the network element costs, is incorrect and will overestimate the required level of profit needed to ensure economic replicability.

The exception to this is in respect of the depreciation costs, which we expect to arise in relation to the 'Own Network' cost category. This is because depreciation is an accounting method to spread a one-off cost over time. As we explained in our previous report, in this case the cost of capital needs to be included to ensure that the present value of the depreciation is equal to the actual expenditure.[57]

After calculating the present values of costs and revenues, in the 'step 2' formulae of its ERT Methodology, RATEL proposes to convert these values to 'monthly weighted average' costs and revenues. It is not clear what RATEL precisely means by this term, however, we understand that this step converts the present value figures to monthly annuities. We consider that this step is unnecessary for the purposes of ensuring economic replicability.[58] However, except for the issue we outline below, we consider that the ERT implemented using the monthly annuity values is valid (as it should, in principle, be equivalent to the NPV from a time value perspective).

In terms of the issue, the way in which RATEL converts the present values of the costs and revenue into a monthly annuity is inconsistent with the calculation of the present value. Specifically, the calculation of the present value assumes **annual** compounding of the WACC, while the annuity formula assumes **monthly** compounding, which results in an effective annual return higher than the WACC. As such, the monthly annuity calculated by RATEL is not equivalent, in present value terms, to the stream of costs and revenue used to calculate the present value. To keep the equivalence in the WACC rate, RATEL should determine the interest rate that, when compounded monthly, results in an annual equivalent rate equal to the WACC, and then use this in the monthly annuity formulae.

[57] Oxera (2024), 'Oxera assessment of RATEL's proposed margin squeeze methodology' 17 May, Box 2.1.
[58] We consider RATEL may have chosen to adopt this approach to enable it to directly observe the maximum monthly wholesale access price that would ensure economic replicability in scenario 2, i.e. where there is not available wholesale access price from the Rightsholder.

4 The treatment of specific retail services in the ERT

In this section, we present our assessment of RATEL's proposed treatment of:

- mobile services (section 4.1);
- TV content costs (section 4.2).

4.1 The treatment of mobile services

RATEL's proposed treatment of mobile services in the ERT Methodology is essentially the same approach that was proposed in the ex ante MST Methodology, which would be applied in the context of SMP regulatory obligations imposed on TS.[59]

The only difference in the proposed ERT Methodology appears to be that when making the adjustments to exclude mobile services from the ERT, the prices of the **Rightsholder** will be used.[60] RATEL explicitly states that the revenue of the Rightsholder will be adjusted to exclude the part of the package related to mobile telephony.[61] We understand that in adjusting the costs using the standalone mobile price, the Rightsholders prices will also be used, though this is not explicitly stated by RATEL.[62]

The same issues that we highlighted in our previous report for SBB regarding the treatment of mobile services in the ex ante MST Methodology also apply to the ERT Methodology, as the approach is fundamentally the same. We do not repeat our views on the issues with RATEL's proposed approach here: these are available in full section 3 of our previous report for SBB.

These issues would only be relevant to an ERT applied to a Rightsholder that supplies mobile services. However, in these cases, RATEL's proposed approach risks finding that the ERT applied to a retail product including mobile would pass when, in practice, it would fail if all the relevant mobile costs and revenues were included. This could result in a scenario where the level of the Rightsholder's wholesale access price is

[59] ERT Methodology, section 4.1.1; RATEL (2024), 'Methodology of applying the market squeeze test to standalone and bundled service pricing', section 4.6.
[60] ERT Methodology, section 4.1.1.
[61] ERT Methodology, section 4.1.1.
[62] ERT Methodology, section 4.1.1.

deemed acceptable despite the fact that, in practice, Applicants would not be able to replicate retail products including mobile services.

In relation to the ERT methodology, we make the same recommendation to RATEL as we did in our previous report: namely, that all mobile costs and revenues should be included in the in its assessment of bundles which include mobile services. Failing to do so means the ERT will be mis-specified for these products.

4.2 Treatment of TV content costs

RATEL proposes to include TV content costs in the ERT for retail products that include a television service.[63] However, RATEL does not provide any further detail on how it proposes to include these TV content costs in the ERT in practice.

As explained in section 0 above, RATEL should include all the costs and revenues associated with providing the retail product in the ERT, in line with best practice. Therefore, we agree with RATEL's proposal to include the TV content costs in the ERT (where relevant). However, given the complexity associated with TV content costs, we consider there would be benefit in RATEL providing further detail in its ERT Methodology on how it proposes to include these costs in practice. Below, we set out two key considerations for RATEL to take into account in this regard.

First, in the Serbian market, there is a high degree of differentiation in the quality of TV services offered at the retail level. This can range from basic TV packages to premium TV packages, which may include a range of sports channels. The costs associated with providing different quality TV services will therefore vary as, for example, operators will need to incur higher costs to offer a larger range and/or quality of channels.

Given that RATEL proposes to use a product-by-product approach, it is important that the ERT for each retail product includes the TV content costs related specifically to providing the TV service included as part of that product. For example, suppose Product A offers a basic TV service and Product B offers the same basic TV service plus a range of premium channels. The ERT applied to Product A should include only the TV content costs associated with the basic TV service. The ERT applied to Product B should include these same costs plus the additional costs associated with the premium channels. A failure to account for the

[63] ERT Methodology, pp. 21–22.

differences in the TV content costs incurred across different retail product risks undermining the robustness and reliability of the ERT.

Second, RATEL should clarify whether, and if so how, it would apply the adjusted-EEO approach to any TV content costs included in the ERT. Some content costs may be fixed, i.e. may be independent of the number of subscribers. In this case, these costs should **not** be adjusted in the ERT to reflect differences in scale of the Applicant, as it would need to incur the same costs to acquire this TV content (irrespective of tits scale). However, in theory, there may be TV content costs that do depend on the number of subscribers. In this case, it may be appropriate to make adjustments to these costs under the adjusted-EEO approach (though this will depend on the specific rights agreement in place).

Therefore, given the complexity associated with TV content costs, we consider there would be benefit in RATEL providing further detail in its ERT Methodology on how it proposes to include these costs in practice. In doing so, RATEL should carefully consider the points outlined above.

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