RIIO-2: Price control expenditure cap for visual amenity improvements in designated landscapes

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Report for:

Alliance for Welsh Designated Landscapes
Association for the Protection of Rural Scotland
Campaign for National Parks
Campaign for the Protection of Rural Wales
CPRE, the countryside charity
Cymdeithas Eryri Snowdonia Society
Friends of the Lake District
Friends of the Peak District
John Muir Trust
National Association for Areas of Outstanding Natural Beauty
National Parks England
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Analysis of Ofgem's proposed allowance for expenditure on visual impact reduction in designated areas for the RIIO-T2 period

Introduction

My brief has been to assess the allowance that Ofgem propose to make for visual amenity improvements in designated areas for the RIIO-T2 price control, which will apply for 2021-2026. On the face of it, Ofgem are clear in their overall goals, seeking to '[Support] the delivery of an environmentally sustainable network' (Ofgem 2020a, para 1.8), and visual amenity improvements to the existing network are encompassed within that. Ofgem's broad intention is to take the visual improvement programme that applied in RIIO-1 and apply it to RIIO-2, subject to the caveat that they would be guided by up-to-date willingness to pay (WTP) assessments. Ofgem have also been consistent in stating that they 'use the median estimate of WTP as the starting point for setting the overall expenditure cap' (Ofgem 2019, para 3.238).

In their draft determination (Ofgem 2020a, para 2.137), Ofgem identified three options: the first, £925 million, representing aggregate median WTP for the RIIO-2 period (plus 2.5% for non-undergrounding impact mitigation projects); the second, £725m, covering all potential pipeline projects (plus the 2.5%); and a lowest option - £465m - covering those potential pipeline projects identified in TO business plans 'that have an affordable impact on energy bills and visual impacts of high importance' (plus the 2.5%). Ofgem specify the lowest option, £465 million, as their preferred expenditure cap (Ofgem 2020a, p.46). In my view this is not defensible, for two sets of reasons.

Additional conservatism has been added to an already conservative estimate

The first set of reasons is that Ofgem have made a conservative judgement about WTP data that is already conservative in the methodological approaches adopted.

As I have argued in analyses completed for previous price controls, and as is accepted by Ofgem (2019, para 3.237), seeking consumer WTP for environmental improvements is more conservative (i.e. delivers lower values) than asking consumers to place a value on their willingness to accept (WTA) compensation for the persistence of environmental bads, e.g. the presence of intrusive electricity transmission infrastructure in our highest quality landscapes. Given that landscape and environmental protection is the prime purpose of legislation underpinning

National Parks, AONBs and NSAs, one can reasonably argue that the public are entitled to enjoy these landscapes free of visual intrusions, and the onus should not be on the public to pay additionally to correct a situation that is undesirable. In short, one can argue that WTA better captures the rights and expectations pertaining to the problem than WTP. My point here is that adopting WTP rather than WTA is already a conservative choice that understates the welfare impacts of intrusive transmission infrastructure in designated landscapes.

In addition to this, the consultants that produced the WTP research on behalf of the transmission operators (NERA and Explain 2019) took a considered, best practice approach that included a number of 'very conservative' (p. viii) assumptions to guard against respondents giving over-stated answers. These can be summarised as:

- Ensuring respondents were reminded of the budget implications to them of adding more costs to their electricity bill (see para 5.1.5 'Testing for the effects of budget constraints'). In Ofgem's terms, this helps ensure that the 'measure reflects both the ability and inclination of consumers to pay' (Ofgem 2019, para 3.237)
- Conducting an additional contingent valuation of packages of benefits, to scale the Choice Experiment data derived from aggregate WTP for each benefit in turn.
- Respondents were also told that electricity bills were likely to rise over the period (see NERA and Explain 2019, Appendix F)

On the basis of the above, the study recommended that the TOs rely on the following per capita, per consumer WTP figures: £6.87 for additional undergrounding of overhead transmission lines in National Parks etc, and £4.14 for additional visual improvement work in National Parks etc.

Turning to the draft determination, Ofgem do not explain in their draft determination how they arrived at the three options for their expenditure caps. If we assume it is the same as in the RIIO-ED2 Sector Methodology Consultation (Ofgem 2020b) then it entails taking the WTP figures (£6.87), multiplying them by five (years) and then the number of electricity bill payers, to get £925,000,000. On this basis, the implied WTP for Ofgem's second option (£725 million) is £5.37 and for their preferred expenditure cap (£465 million), the WTP figure is £3.44.[1]

[1] Since Ofgem do not provide their own calculation, it is unclear exactly how the NERA and Explain median figure for WTP links to an allowance of £925 million, and I have no reason to believe that my broad approach (allowance = per capita WTP X 5 (years) X number of electricity bill payers) is very wide of the mark. I used the £925 million and £6.87 to calculate number of bill payers (27,007,300) and then calculate the other figures.

From this one can deduce that Ofgem's preferred expenditure cap of £465 million corresponds to a per capita WTP of £3.44, which is only half that generated by median WTP, which was itself derived from a very conservative methodological approach. This is a very sizeable reduction.

Ofgem's decision criteria and caveats have been poorly justified

Not unreasonably, Ofgem have given a caveat to their approach to measuring allowances for visual improvements in designated areas, saying that although they will take median WTP as their starting point, '(w)e reserve the right to determine the expenditure cap having considered the robustness of updated WTP and other relevant considerations ...' (Ofgem 2019, para 3.238; 2020a). However, Ofgem's deployment of these caveats to favour a low expenditure cap is poorly justified.

Ofgem present the 'robustness of updated WTP' as a consideration but nowhere do Ofgem present any reasons why the WTP data produced (NERA and Explain 2019) should not be regarded as robust.

Ofgem (2020a, para 2.136) state their considerations in choosing their preferred option, £465 million, as the following:

- 'the pipeline of potential new projects in the TO's RIIO-T2 business plans'
- 'the additional costs that consumers will face in the RIIO-2 price control period to facilitate the Net Zero transition in the energy sector (i.e. costs in excess of the Net Zero service attributes that were included in the WTP survey)'
- 'the potentially long-lived economic shock arising from the Covid-19 pandemic that could adversely affect the affordability of energy bill increases for many consumers'
- 'it is within the expenditure cap set by WTP and will allow the TOs to deliver significant visual amenity benefit in T2 at least impact on energy bill (*sic*)' (Ofgem 2020a, 2.138)

These caveats are poorly justified, with Ofgem giving little specific reasoning behind them. Viewed individually, the reasons look problematic.

Either way, Ofgem's preferred option for the expenditure allowance assumes a WTP that is half the conservative figure generated by the analysis.

Choosing the lowest option because it has 'least impact on energy bills' is tautological. It is also somewhat illogical. The purpose of surveying WTP is to assess the level of welfare gain achieved by visual amenity improvements to designated landscapes, based on public preferences, to identify what increase in electricity bills might be most acceptable to the public. Ofgem appears to be ignoring this and saying that, despite the scale of the positive WTP, what the public want is to allocate as little resource as possible to visual amenity improvements.

Referring to the economic effects of the Covid-19 pandemic is problematic on a number of grounds. First, Ofgem give no detail or explanation for their reasoning. Second, the allowances for visual amenity improvements in designated landscapes appears to be the *only* issue in the PCD on which Ofgem thinks Covid-19 should lead to action to reduce effects on bills.

Third, the notion that the economic crisis caused by Covid-19 should be a reason for *reducing* costs is controversial; it would be more consistent with the logic of the Government's green recovery agenda to ramp up investment in projects that enhance the nation's environmental assets, such as visual amenity work on the existing network. Fourth, the evidence that difficult economic situations lead the public to register lower WTP for environmental quality is equivocal, as shown by the WTP work conducted for previous price controls.[2] NERA and Explain (2019, para 5.1.5) also found that WTP was not significantly sensitive to wider budget constraints.

It is also unclear why much force should be given to the argument that customers may face other pressures on bills to facilitate net zero in the energy sector. Ofgem provide no detail on this. Again, visual amenity improvements seem to be the only issue to which Ofgem apply this caveat. And while the UK's energy systems will indeed need to undergo radical change as we move to net zero, not all changes increase unit costs to bill payers (the falling costs of offshore wind and solar is a case in point), and many of the changes will be paid for by the economic actors that benefit from the resulting revenue streams (e.g. grid connections).

[2] The Accent research used to inform visual amenity allowances for Distribution Price Control Reviews, in 2008 and 2012, one before and one after the financial crash, show little change in the percentage of respondents not willing to pay anything for undergrounding in National Parks etc.

References

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Background

Richard Cowell is Professor of Environmental Planning at the School of Geography and Planning, with thirty years experience in analysing the relationship between land use planning and environmental sustainability, with particular expertise in the energy sector. He is the author of more than sixty papers in international peer-reviewed journals, as well as a number of books, and his research has been funded by UK Research Councils, governments as well as environmental organisations. He co-produced one of the first studies of the costs and benefits of undergrounding overhead electricity lines in 1991 for the (then) Countryside Commission, and has applied his expertise to a number of price control reviews for the distribution and transmission networks.