

An aerial photograph of a high-voltage electricity transmission tower, also known as a pylon, situated in a lush green field. The tower is a complex lattice structure made of metal, with several high-voltage power lines extending from it across the landscape. The field is divided into neat, rectangular sections, likely agricultural fields. The overall scene is a blend of industrial infrastructure and natural environment.

nationalgrid

Impact Assessment Document Response

National Grid Electricity Transmission

August 2025

IAQ1. Do you agree with our approach to assessing the economic impacts of RIIO-3?

We agree with several aspects of Ofgem's approach to assessing the economic impacts of RIIO-3, but the current approach is not sufficient.

Ofgem must do the following so that the full impacts on the delivery of CP2030 and economic growth can properly be assessed:

- specifically identify which elements of its RIIO-3 package are streamlined and are expected to result in accelerated investment vs. the RIIO-2 counterfactual. As it stands, Ofgem's assumption that the Draft Determinations' proposals will have this effect, relative to the RIIO-2 counterfactual, is unsubstantiated. It does not appear reflected in many of the specific decisions, for example having six different funding routes for indirect costs, funding overhead line asset health interventions through two different interventions, three different tracks for load related reopeners, a stepped approach to TIM, and staged release of PCF for relatively small projects requiring multiple funding requests.
- expand its assessment of economic growth and environmental impacts, while recognising full quantification may not be feasible.
- adequately assess the risk and uncertainty arising from the design of the package as a whole.

We expand on each of these points below, before also offering some observations on other technical points.

Ofgem has not sufficiently assessed whether or how the investments in T3 will truly be accelerated by the RIIO-3 package proposed at Draft Determinations

Ofgem's policy for Impact Assessments requires that, among other things, Ofgem "set out clearly the desired outcomes and objectives of the intervention with the intention to identify the full range of options that may be available to deliver them" and "complete an appraisal of the identified options, and the identification of the most appropriate solution"¹.

Ofgem articulates the desired outcomes and objectives well in the RIIO-3 Draft Determinations Impact Assessment, when it states:

*"In ET, to transform the connections process, generate more clean power, and boost energy security and resilience we must expand the grid at an unprecedented scale and pace, with investment that could exceed £80bn by 2031 (up to more than four times current spend levels). We must set a price control that enable efficient capital injection, whilst maintaining cost controls and strong delivery accountability. We must manage short-term bill impacts whilst recognising the build out of these transmission grids is the only credible way of relieving pressure on consumers in the medium and long term."*²

And:

*"Government plans for the decarbonisation of the energy sector will require the electricity network operators to accelerate investment in their networks. In doing so, we also need to strike a fair balance between current and future consumers to pay for the network costs which are required to fund this acceleration."*³

The need for a regulatory framework that supports investment at pace should therefore be the key test for the Final Determinations Impact Assessment for the ET sector.

Given this, we are surprised with Ofgem's statement that the additional costs and benefits of a streamlined, workable and deliverable framework of Uncertainty Mechanisms might be "relatively modest and hard to quantify"⁴. While we recognise that precise quantification could be challenging, Ofgem should not downplay the huge value to consumers and Great Britain that will emerge from a regulatory framework which a)

¹ https://www.ofgem.gov.uk/sites/default/files/docs/2020/05/impact_assessment_guidance_1.pdf; page 20

² Ofgem RIIO-3 DD, Impact Assessment, Executive Summary page 4

³ Ofgem RIIO-3 DD, Impact Assessment, paragraph 1.3

⁴ Ofgem RIIO-3 DD, Impact Assessment, paragraph 1.7

facilitates the major ramp-up in investment which is required to meet Government objectives including Clean Power 2030; and b) minimises the risks and downsides of delay. If RIIO-3 delivers this regulatory framework, the benefits to customers will not be modest – they will be highly material. Transmission Owners' business plans set out the wide range of benefits which could be realised if Ofgem designs a framework that meets its objectives and enables the acceleration of the transformation of the country's electricity system.

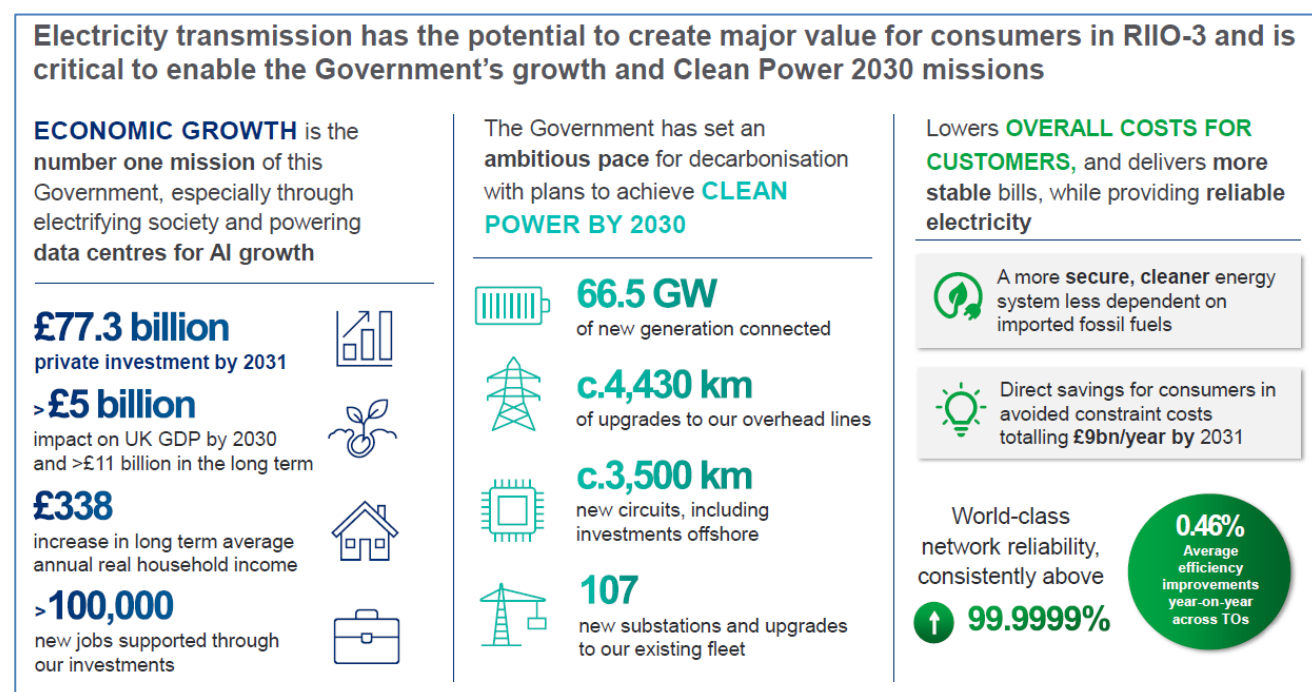


Figure A – overview of potential outcomes for the GB electricity sector during RIIO-T3, provided an investable, workable and deliverable framework is put in place

In line with this, Ofgem should turn its objectives into a clearer set of criteria against which the Final Determination package can be evaluated. These criteria could be:

- Does the RIIO-3 package of re-openers and other Uncertainty Mechanisms deliver a regulatory framework that is workable in practice?
- Does the RIIO-3 package result in agile and flexible regulation that can respond to evolving system needs and ensure the right investment is delivered, and can be delivered more quickly than would otherwise be the case?
- Does the RIIO-3 package provide sufficient and adequate protection for consumers under different scenarios?
- Will the regulatory policies for RIIO-3 contribute to economic growth?
- Will the regulatory policies for RIIO-3 bring forward the scale of ET investment required over the period?

We also recognise and agree with the challenge Ofgem has identified, that *“there are many decisions involved in any price control and publishing a single IA covering all of these in one place would generate a large number of alternative options for assessment, making the IA unnecessarily complicated and repetitive on analysis already provided in other documents.”*⁵ We agree with Ofgem that the purpose of the Impact Assessment should not be to stress-test each and every policy decision individually against a range of alternatives, which would be unnecessarily complicated and disproportionate.⁶ We therefore agree with Ofgem's proposal to assess the RIIO-3 regulatory package against a counterfactual in which RIIO-2 policies broadly continue.⁷

⁵ Ofgem RIIO-3 DD, Impact Assessment, paragraph 1.2
⁶ Ofgem RIIO-3 DD, Impact Assessment, paragraphs 2.4 – 2.8
⁷ Ofgem RIIO-3 DD, Impact Assessment, paragraphs 3.1 – 3.2

Within that overall framework for undertaking the Impact Assessment, however, Ofgem has failed to assess sufficiently whether the RIIO-3 policy framework proposed in the Draft Determinations will truly facilitate accelerated investment relative to RIIO-2. As it stands, Ofgem simply states that its RIIO-3 proposals will accelerate investment – but this is not properly evidenced, explained or stress-tested. As we have explained elsewhere in this Draft Determinations response (see, for example, responses to ETQ29, ETQ30, ETQ37, ETQ38, ETQ44 and ETQ45 relating to Load, CSNP and Non-Load Re-openers) Ofgem's Draft Determinations proposals fail to meet its objective to accelerate investment. Therefore, this is the area that Ofgem should focus on developing much more thoroughly for the purposes of the Final Determinations.

Ofgem states that its proposed design of Uncertainty Mechanisms is scaled *"in proportion to the complexity of the projects. This will involve lighter touch and earlier assessments of many projects than we would have applied previously. This brings risk that some sub-optimal lower value schemes progress (e.g. where we may have otherwise disagreed with routing or detailed design), however we consider this is necessary to ensure that our decision-making does not impede the delivery of CP2030."*⁸

Applying a proportionate approach is a critical aspect of a workable framework. But it is not clear which parts of the RIIO-3 Draft Determinations Ofgem now considers are taking a proportionate approach, and involve more streamlining and lighter touch assessments, relative to RIIO-2. Ofgem needs to provide more specificity and evidence to support where streamlining has taken place.

In our view, there are policy decisions within the Draft Determinations that will have a real impact on the electricity Transmission Owners' ability to deliver the investment that Ofgem assumes will come about. The patchwork of Uncertainty Mechanisms proposed within the Draft Determinations are overly complicated and is not *"a package [that will] accelerate investment, both by providing more assurance to TOs on the availability of funding for necessary projects, and by providing strong incentives to hold TOs to account for the delivery of those projects."* (para 3.14).

As we explain elsewhere in this Draft Determinations response (see, for example, ETQ29), there are many examples where regulatory processes in RIIO-2 are holding up investment or creating funding uncertainty which risks undermining the core objectives, and the Draft Determinations fail to explain where or how these issues will be addressed for RIIO-3.

For the Final Determinations, Ofgem's Impact Assessment should therefore systematically identify the areas of the framework that are more streamlined than RIIO-2 and identify where and how it intends to operate a lighter touch approach vs RIIO-2. This way, the benefits and impact of a streamlined framework can properly be identified and assessed.

Once the policy areas that are streamlined vs RIIO-2 are identified, Ofgem can then undertake a more specific assessment of both:

- how much investment it expects can be delivered more quickly than would have been the case in the counterfactual; and
- how much more quickly that investment will be delivered i.e. which parts of the new regulatory framework would run more quickly.

This should then allow Ofgem to update its high-level quantification, in which Ofgem assumes that £32bn of electricity transmission investment is brought forwards two years. Currently, there is no information to support either the quantity of the investment brought forward by RIIO-3, or the timeframe (Table 3, para 3.17).

We agree that the benefits of accelerating investments outweigh the costs to consumers in the event of delay. Our consumer research shows support across all socio-economic groups for the proactive investment approach that we proposed in our business plan⁹. In the Final Determinations Impact Assessment, Ofgem must do more to demonstrate that its proposals really will deliver on the ambition to accelerate investments.

Similarly, achieve an investable framework requires it to provide earnings which keep pace with asset growth and nominal equity returns of 9-10% for high performing networks. Based on our analysis, the Draft Determination delivers on the first of these but is far short of achieving the second because:

- The financial framework for electricity transmission needs to be competitive in the real-life global competition for capital. It is no longer a theoretical exercise;

⁸ Ofgem RIIO-3 DD, Impact Assessment, paragraphs 3.13

⁹ See RIIO-T3 Business Plan Main Document, page 20

- Cross checks clearly demonstrate the baseline equity return of 5.64% (55% gearing) is too low to compensate for the inherent risk within the business, and given the returns available elsewhere will not attract new equity versus other opportunities;
- The baseline equity return should be increased to at least 6% at 55% gearing in the Final Determinations to compensate for the inherent risk;
- There is further downside risk (above inherent risk) across the framework that lowers expected returns further;
- The incentive framework is incomplete, weighted to downside risk and insufficient to bridge the gap to 9-10% nominal returns for efficient, high performing companies.

Economic Growth and Environmental Impact

In its Chapter 4 on Wider Impacts, Ofgem identifies that its RIIO-3 Draft Determinations should have a positive impact on both economic growth and will deliver environmental benefits. We recognise and agree with Ofgem's view that these benefits can be hard to quantify, and that Ofgem needs to adopt a proportionate approach in its Impact Assessment. However, as it stands, we consider the Draft Determinations Impact Assessment fails to do enough to identify and quantify these benefits, and this is therefore an area that should be improved for the Final Determinations.

In relation to **economic growth**, it is clear that Ofgem's statutory growth duty is relatively new (both for Ofgem and other regulators) and there is not yet consensus around how the growth duty should meaningfully be quantified or factored in to regulatory decision making. That said, Ofgem's Impact Assessment only contains a very narrow focus in regards to economic growth - considering this only through the lens of jobs and training; and relying entirely on evidence presented by NGET and SPEN. Our business plan set out the impacts on economic growth that our plan supports using the key drivers identified by government in its [statutory guidance for regulators](#): innovation, efficiency and productivity; infrastructure and investment; skills; competition; trade; and environmental sustainability¹⁰. Ofgem's Impact Assessment does not explain how its decisions support these priority areas.

In addition, Ofgem fails to recognise that our plan provides 19GVA of new capacity to connect new demand to our network – helping to connect new gigafactories that produce batteries for electric vehicles, and data centres that will harness the power of AI. All of this will contribute materially to economic growth. Ofgem should consider these benefits in its Final Determinations Impact Assessment.

In regards to **environmental impact**, again Ofgem's approach appears quite narrow. Major transmission investment is essential for decarbonising existing industries and connecting new low-carbon and renewable generation. This can and should be recognised in the Final Determinations.

One specific area where the environmental impact and economic growth potential of Ofgem's decisions within the Draft Determinations should be identified more clearly relates to Ofgem's approach to assessing project optioneering and what appears to us to be a de facto policy of Ofgem favouring AIS over GIS. This decision has a direct implication on the timing of connecting low-carbon sources of generation to the network. Ofgem should recognise explicitly in its Final Determinations that its approach will result in higher greenhouse gas emissions in the short term. Please see our response to ETQ69, where we explain why a multi-factor approach to considering the benefits of different switchgear technology, in particular the potential for GIS to be deployed more quickly and secure economic benefits through faster customer connections.

Ofgem must adequately assess the risk and uncertainty arising from the design of the package as a whole

Section 6 of Ofgem's Impact Assessment Guidance explains how it complies with its statutory duty under section 5A Utilities Act 2000 to undertake impact assessments. That guidance identifies elements which are common to all Impact Assessments. Among the elements listed are "risk and uncertainty" with various analytical steps considered (see paragraph 6.15 onwards).

As it stands, we do not consider that Ofgem's Draft Determinations Impact Assessment engages with this critical issue in any meaningful sense. This is an area that needs to be addressed to ensure that Ofgem is properly informed before adopting its final impact assessment and issuing its Final Determinations.

¹⁰ See RIIO-T3 Business Plan Main Document, page 78

In order to avoid duplication across our response, please see our response to FQ17 for more details of the analysis which we consider is required, the reasons for this and the conclusions that may be drawn based on our own analysis. See, in particular, the section in FQ17 referring to the Monte Carlo analysis undertaken by Frontier Economics.

Other Observations

Ofgem sets out a list of areas where it concludes there is no policy change relative to an evolved RIIO-2 counterfactual, and where it therefore assumes no economic impact (paragraph 3.4) and invites stakeholder views on whether this list is complete (paragraph 3.5).

Notwithstanding the limitations of the approach that Ofgem has taken to assessing the impact of its policy decisions, which we describe above, we agree with Ofgem's characterisation of policy areas that are consistent with RIIO-2 and confirm that we have not identified other aspects of the Draft Determinations that should be considered further in Ofgem's Final Determinations Impact Assessment.

As a technical point, we do not believe Ofgem's assessment of the change in 'price control revenue' should logically form part of the Economic Assessment of RIIO-3 contained in Chapter 3 of the Impact Assessment. In Table 3, paragraph 3.19, and Figure 1 Ofgem appears to report revenue in the final year of RIIO-2 (£4.3bn) and compare this to projected revenue in the final year of RIIO-3 (£11.3bn). However, as Ofgem explains in the Impact Assessment, the counterfactual used for the purposes of the Economic Assessment involves a 'do minimum' that is an evolution of RIIO-2. As Ofgem says, the counterfactual would have involved changes to various price control parameters to reflect latest data; and increases in Totex allowances. In our view, Ofgem's revenue analysis sits more appropriately alongside the assessment of Bill Impacts in Chapter 5, instead of the Economic Assessment in Chapter 3.

We also note that Ofgem's summary of its impact assessment (page 5) appears to focus on what might be described as an overall socio-economic Cost-Benefit Analysis (CBA) of the T3 investment programme as a whole. This seems to contrast with the Economic Assessment actually carried out in Chapter 3, which focusses on the effect of accelerated investment (paragraphs 3.14 – 3.17).

We consider that the economic benefits of the T3 investment programme as a whole are already assessed within the CBAs for projects in the investment portfolio, which are thoroughly scrutinised by Ofgem as part of its cost assessment. The economic case for making these investments, and the substantial benefits that will arise for customers and the country as we work towards Clean Power 2030, is also reflected in NESO's development of strategic infrastructure plans; and in Government's CP2030 policy. We therefore think the summary position should more closely reflect the impact assessment set out in Chapter 3 of the Impact Assessment and the quantification of the benefits of accelerating investment vs a counterfactual where there are delays.

Conclusion

By Final Determinations, Ofgem must :

- **specifically identify which elements of its RIIO-3 package are streamlined and are expected to result in accelerated investment vs. the RIIO-2 counterfactual. As it stands, Ofgem's assumption that the Draft Determinations' proposals will have this effect, relative to the RIIO-2 counterfactual, is unsubstantiated. It does not appear reflected in many of the specific decisions, for example having six different funding routes for indirect costs, funding overhead line asset health interventions through two different interventions, three different tracks for load related reopeners, a stepped approach to TIM, and staged release of PCF for relatively small projects requiring multiple funding requests.**
- **expand its assessment of economic growth and environmental impacts, while recognising full quantification may not be feasible.**
- **adequately assess the risk and uncertainty arising from the design of the package as a whole.**

As outlined in the cover letter to our response, it is also essential that Ofgem simplifies the framework

of uncertainty mechanisms and introduces process improvements to enable delivery at scale. These improvements should then be reflected in an updated Impact Assessment.

IAQ2. What are your views on the appropriate approach to evaluation of the economic impacts of RIIO-3?

We understand this question relates specifically to the section titled “Evaluation” in the Draft Determinations Impact Assessment (i.e. paragraphs 4.19 – 4.23) – our response therefore focusses solely on this section.

We welcome ongoing monitoring and evaluation as a critical part of ensuring accountability and continuously assessing that the execution of the regulatory framework is, in practice, meeting the stated objectives when the framework was designed. We therefore welcome Ofgem’s proposal to introduce a Monitoring and Evaluation section for the Final Determinations.

Ofgem should consult stakeholders ahead of Final Determinations on its proposals for this framework so they have the opportunity to input into and comment on its scope and design.

We agree with Ofgem (paragraph 4.21) that a large number of data reporting and monitoring tools are already in place (RIGs, RRP’s etc). We welcome the discipline and scrutiny that these processes bring and we also acknowledge that data reporting practices are being continuously refined and updated over time. This process should continue and we expect it will form a central part of the RIIO-3 Monitoring & Evaluation process. We recognise Ofgem’s concern (paragraph 4.22) that it must set new price controls before the existing price control has finished, but we note that this is a natural consequence of the review cycle for all price controls and does not in itself lead to any new data requirements. The extensive data reporting requirements that have been developed over time should substantially mitigate any concerns Ofgem has regarding information asymmetry.

We also consider that the general position on monitoring and evaluation within Ofgem’s [Impact Assessment Guidelines](#) looks fit for purpose.

We would also welcome an opportunity to engage with Ofgem, once the Final Determinations and accompanying licence modifications have been published, on a process to look back at how the RIIO-3 price control process has been run across the various stages of Future for Systems and Networks Regulation consultation and decision, Sector Specific Methodology consultation and decision, Business Plan submission, Draft Determinations and Final Determinations. Ofgem typically undertakes to engage in a “lessons learned” process and we would welcome a similar process for RIIO-3, with the principal aim of identifying specific and tangible process improvements that could be made as we head into future price controls.

We note that Ofgem suggests (paragraph 4.23) it might consider, as part of a lessons learned exercise, an “*impact evaluation*” or “*specific outcomes to prioritise or areas to consider e.g. we could focus on changes to the counterfactual as outlined in Table 1*”. These suggestions appear duplicative with the objectives for the Final Determinations Impact Assessment and therefore we do not consider they also need to feature in any ex post evaluation of the RIIO-3 Final Determinations.

IA Q3. Do you agree with our approach to modelling the bill impacts of RIIO-3? Please provide any additional effects or alternative measures that you think would be appropriate

We support Ofgem’s overall approach to quantifying bill impacts under RIIO-3, which we believe provides helpful information that allows stakeholders to understand the net impact of the RIIO-3 price control package on consumer bills over time.

We agree with Ofgem that stakeholders will be interested in how their bills will be changing (paragraph 1.7). We understand this analysis is entirely separate from the Economic Assessment of the RIIO-3 proposals (contained in Chapters 3 and 4) – the purpose of the bill impact analysis is to provide clarity and transparency to stakeholders about anticipated changes in bills over time, rather than to evaluate the RIIO-3 Draft Determinations itself. This should be stated clearly in the Final Determinations.

Ofgem’s disaggregation of the impacts on network charges and consumers bills is helpful, with clear breakdowns of the ET bill increase from higher Totex (+£32), lower capitalisation rate (+£7), WACC (+£13), and semi-nominal WACC adjustments (+£6). This helps stakeholders to identify where bill increases are driven by policy versus economic levers. The disaggregation of impacts arising from RIIO-2 roll-forward (+£17) helps to isolate the impact of the T3 versus bill increases that would have occurred even under a ‘do nothing’ scenario.

Use of a consistent price base (2025/26) provides further transparency for stakeholders and assessing the bill impact for a typical dual-fuel customer ensures comparability. We welcome Ofgem’s testing of sensitivities around interest rates, constraint costs and future gas prices. This gives stakeholders a fuller picture of the uncertainties and range of potential bill impacts.

We particularly welcome Ofgem’s recognition and quantification of offsetting bill reductions arising from reductions in constraint and commodity costs. This helps stakeholders to understand the system-wide impact of timely ET investment on consumer bills. Ofgem takes a reasonably high-level approach to assessing the net bill impact, drawing on existing NESO analysis to undertake a simple quantification of the system-wide impacts which focuses solely on constraint cost savings and wholesale market price reductions. We presented analysis in our RIIO-3 Business Plan Main Document (page 77) showing £12bn of constraint savings over the course of the price control period – worth more than £40 per annum by 2031 for the average domestic consumer – which Ofgem may wish to consider as further evidence alongside its analysis.

Ofgem’s analysis could be strengthened in the following areas to improve the robustness of the assessment.

- RIIO-3 ET investments will interact with other components of the consumer bill such as distribution charges and BSUoS charges. Without considering these impacts, the overall consumer affordability picture is incomplete. We recognise that these impacts are difficult to quantify, and we do not expect Ofgem to undertake complex energy system modelling. However, Ofgem could consider these impacts qualitatively or at a high-level in its assessment.
- We suggest that Ofgem consider an additional sensitivity on totex (e.g. $\pm 10\text{--}20\%$ totex). The draft Impact Assessment uses a single central totex scenario. However, for the purposes of assessing bill impact Ofgem could consider alternative investment scenarios where a higher / lower demand scenario eventuates and consequently a higher / lower volume of investment is required. Note that any higher / lower demand that arises in this scenario should also be reflected in bill impacts i.e. higher demand / higher totex scenarios should be paired; likewise lower demand / lower totex scenarios, for the purposes of assessing bill impact.
- Ofgem uses a static demand assumption from 2025/26 onwards, as stated in the notes to Table 6. We do not believe this is a plausible assumption given the CP2030 trajectory, especially with growing EV, heat pump, and data centre demand. We suggest that Ofgem uses a scenario that reflects the growth in electricity demand that is driving RIIO-3 ET investment.
- In thinking about the net impact on domestic customers, Ofgem should also recognise that some of the increase in electricity demand which drives ET investment is the result of the electrification of heat and transport. This means that not only will customers be avoiding constraint costs and benefiting from lower wholesale market prices, they will also achieve savings from avoiding vehicle fuel costs in transportation and the fuel costs associated with a gas boiler. Quantifying these impacts precisely may be challenging for Ofgem, and of course not all customers will switch to EVs and heat pumps – but it could be identified at least qualitatively as a further offsetting factor for future customers, relative to any bill increases arising from their higher electricity demand.

We believe there are benefits in consistent estimates in bill impacts between Ofgem, industry and government and would welcome the opportunity to work together on developing common and more sophisticated estimates of how household utility expenditure may change as electrification of the economy continues.

Ofgem should implement the improvements we have suggested to improve the robustness of its bill impact analysis.

national**grid**

National Grid plc National
Grid House, Warwick
Technology Park, Gallows Hill,
Warwick.
CV34 6DA United Kingdom
Registered in England and Wales

nationalgrid.com