

The public sector and net zero: showing how it is done



A successful transition to a Net Zero UK Economy by 2050 requires leadership from our public institutions. Therefore, we should ask ourselves the question, ‘Is the government, and the wider public sector, doing enough to build confidence that Net Zero is deliverable?’

Confidence in the transition has many elements. People need to be sure that it is necessary, and they need to be sure that it is practically achievable: that the solutions exist, the timeframe is not too short, it won’t cost too much, and the changes to the way we live will be at the very least acceptable and preferably likeable.

People need to feel that this is a transition that involves everyone; that everyone has to, and will, do their bit. And that the end result holds something positive for them. During COVID, platitudes about all being “in this together” were replaced by the view that we are all in the same storm but not all in the same boat. This could apply equally to the climate crisis: we certainly aren’t all in the same boat, but we need to be convinced that there is a way for our whole flotilla to successfully reach the other side of the storm.

Belief that the UK’s transition is necessary

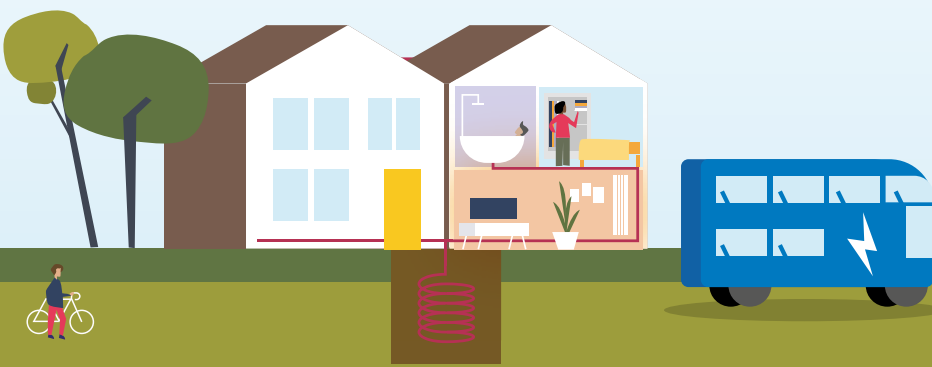
The science is clear: there is a **global consensus** that a rapid and deep transformation of the way we do things is absolutely necessary to avoid dangerous global heatingⁱ. But Powerpoint presentations of the facts will not be enough to engage people. This is about hearts, not just minds. Engaging people’s emotional response may not be a task we expect of government, but there is no reason why the public sector cannot facilitate this: we need a **Poet for the Planet**ⁱⁱ in every school!

Belief that it is practically achievable

Governments are **promising new advice services** for households and small businessesⁱⁱⁱ. These may well offer all the information on the technologies available for a home or office to achieve net zero, explain how much it is likely to cost, and suggest a timeframe over which it can practically be achieved. The Catch-22, though, is that people will probably only access these services when they are already confident that the change they want to make is within reach. Information is unlikely to build this confidence: experience is.

We know that **households look to their friends, family, neighbours and trusted traders** when they are considering home renovations. We also know that they like to see practical examples of new technologies in action, to experience what a low carbon home or workplace is actually like^{iv}.

There is an opportunity here for the public sector to drive change.



We tend to focus on asking government to set itself targets for reducing carbon emissions and to report the numbers that show progress towards meeting these. This is important, and it is something that government recognises. For example, the **Net Zero Strategy**⁵ includes the aims of reducing emissions from public sector buildings by 75% by 2037 compared to 2017, and 100% of the government car and van fleet to be zero emissions by 2027. And it promises annual reporting on progress towards these targets.

But sharing the results of public sector action on net zero needs to be about more than counting carbon. It must be about explaining how to achieve emissions reductions and about demonstrating a ‘new normal’; painting a picture for people of what net zero, and the process of change to get there, will actually look like.

There are many opportunities for public sector organisations to share experiences with others in their sector. Regular regional meetings of the Association of Local Energy Officers; Ashden’s ‘Let’s Go Zero 2030’ campaign for schools; and the Greener NHS programme are just a few examples.

But we need this experience to be shared much more widely. If government departments refurbish their offices, they should share information – good and bad – about the process and results with businesses that want to do the same. If social housing is refurbished, the end results should be celebrated as an example for all tenures to follow.

As the public sector implements more energy conscious ways of working, such as policies on how to most efficiently use IT infrastructure (e.g. how to share files at lowest energy cost; email etiquette that avoids unnecessary energy use), details should be made available for others to use.

And the potential goes far beyond this, because the people who work in, are treated in, learn in these public sector buildings will be experiencing what it is like to inhabit low carbon spaces. If they know they are in a low carbon space (and if they are reminded of this from time to time), they will be the friends, family and neighbours who people can turn to for the stories that bring net zero to life.

How can experience be shared widely?

We think that there are many ways in which the public sector could share its experiences of how to decarbonise and what it’s like to work in a low carbon way. Our ideas include:

- Local climate or net zero partnerships, bringing businesses and public sector organisations together to share their experiences
- ‘Open house’ events in refurbished social housing, encouraging owners of other local homes to see what can be done and learn about the technologies involved
- Interviews on low carbon working in trade magazines
- Asking energy suppliers to share case studies with their commercial customers
- A competition open to any public sector net zero project; with the winning stories used in a government-sponsored online communications campaign

All these, and more, are likely to be needed to ensure that the public sector can lead others on the road to net zero.

Building confidence that net zero is achievable and desirable is also about how the message is communicated. The public sector needs to share its experiences in a way that engages people and builds their trust. High level statements about strategies, targets and ‘UK leading the way’ will not do this. We need real-life stories about the process of change and about the resulting low carbon life.

Food for thought

Is there a role for the public sector in testing newer ways of working? The sector was **one of the first places** to highlight that even senior jobs could be done part time or as job-shares, and that this could be relevant to men as well as women^{vi}. Should the sector also lead the way in doing business with less business travel; in energy-efficient ways of hybrid working, or even in downshifting to four day weeks?

- Is there a role in testing new ways to live? Should more local authorities be supporting their communities to test out car free days, pocket parks, local food growing co-operatives... things that make low carbon living real, and show people that there is something in it for them

A transition that involves everyone

It is clear that a successful transition to net zero is one **that involves everyone**^{vii}. The public sector has many roles to play here, both to show that everyone can be involved and also to show that everyone must play their part.

Firstly, there must be a common vision for everyone to aim for. It is good that we have a firm target, but that alone is not enough. We need to have a shared view of the details of a net zero future. Local authorities are perhaps in the best place to co-create this shared view with their communities, although they will need more resources to do this effectively. In Scotland, for example, pilots of **Local Heat and Energy Efficiency Strategies** have examined how this could work in practice for the local energy system, and what resources will be needed^{viii}. Another approach, which includes tackling climate change within broader sustainability goals, is the C40 Cities ‘**Thriving Cities**’ programme^{ix}.

Secondly, the public sector needs to drive participation by demanding of any organisation that it works with (suppliers, delivery partners, recipients of financial support...) net zero action plans that are being implemented. Reducing carbon emissions is part of delivering **social value**^x through public sector procurement, and is increasingly being considered by public sector buyers as value is re-cast as something much more than simple monetary returns. This can and should be delivered with accompanying support for organisations, in particular SMEs, that may otherwise struggle to meet the new requirements.

Case study: developing a common vision

Bristol held its first Citizen’s Assembly in January 2020. This focused on recovery from COVID-19 in the context of creating ‘a better future for all in Bristol’. Reducing carbon emissions from homes was one of three key themes, alongside making travel ‘easier, healthier and better for the environment’ and tackling health inequalities.

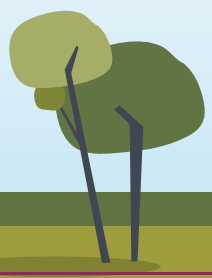
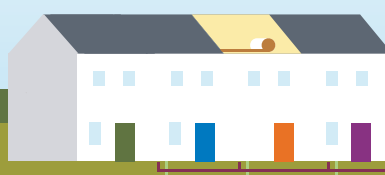
The assembly involved 60 Bristol residents selected via a civic lottery. They came together over four weekends for deliberative discussions, with input from impartial subject experts. The assembly resulted in 17 recommendations for action, including 6 relating to carbon emissions reductions in homes that called for:

- Council leadership on training and upskilling the workforce
- The council to take leadership and responsibility for meeting housing emissions targets

- Innovative finance options so that everyone can improve the energy efficiency of their home
- A One-Stop Shop providing objective, trustworthy information
- The council to introduce a set of Bristol standards, ranging from minimum requirements to best practice aspiration, for energy efficiency for all types of building project
- A street or neighbourhood showcase of what could be achieved if a citywide approach to reaching net zero was taken

Bristol’s Mayor, Marvin Rees, **said in his introduction** to the Assembly report^{xi}:

“...my role is to make space for others, equipping them with the resources and empowering them to deliver change... Seeing the diverse communities of Bristol brought together through the citizens’ assembly adds a new dimension to what we’re building here in the city.”



Case Study: Support for SMEs: the North West's ECO-I Programme

Six universities in the North West are collaborating to offer smaller local businesses support to develop innovative products and services that will help them thrive in the low carbon economy. The programme includes a series of knowledge workshops and additional one-to-one support in the development of proof of concept or business cases.

The aim is to enable businesses to reduce their carbon footprint and adopt future-ready business models.

Read more about ECO-I North West [here](#)^{xii}.



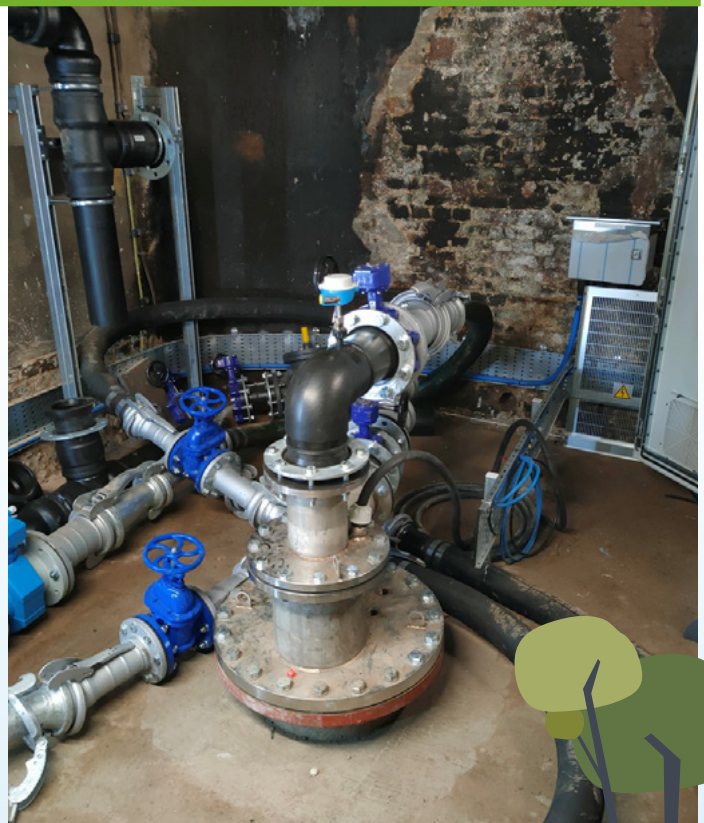
Thirdly, and perhaps most importantly, we need to stop avoiding the more difficult aspects of the transition. Both government and business have tended to encourage individual action by focusing on the elements of the transition that are easiest and least expensive. But we cannot continue to ignore the changes that are less easy or more costly. The recent focus on heat decarbonisation is one clear example of this. It is alarming to realise that, with under three decades left to achieve the necessary change, many people **are not yet aware** that their gas boilers will soon be a thing of the past^{xiii}.

Case study: working together to decarbonise heat

E.ON's Citigen energy centre sits at the heart of an energy network supplying heat and cooling to a range of commercial and residential buildings across the City of London, including several of the City of London Corporation's buildings. The Corporation has a long term co-operation agreement with E.ON to work together in developing and expanding the system.

The technology at Citigen has evolved over the decades, with **the most recent retrofit** designed by Ramboll, partially decarbonising the system using combined heating and cooling heat pumps alongside a geothermal energy source that taps heat from 200m beneath the capital. The £4m investment by E.ON will result in a reduction in carbon emissions of 3,446 tonnes per year^{xiv}.

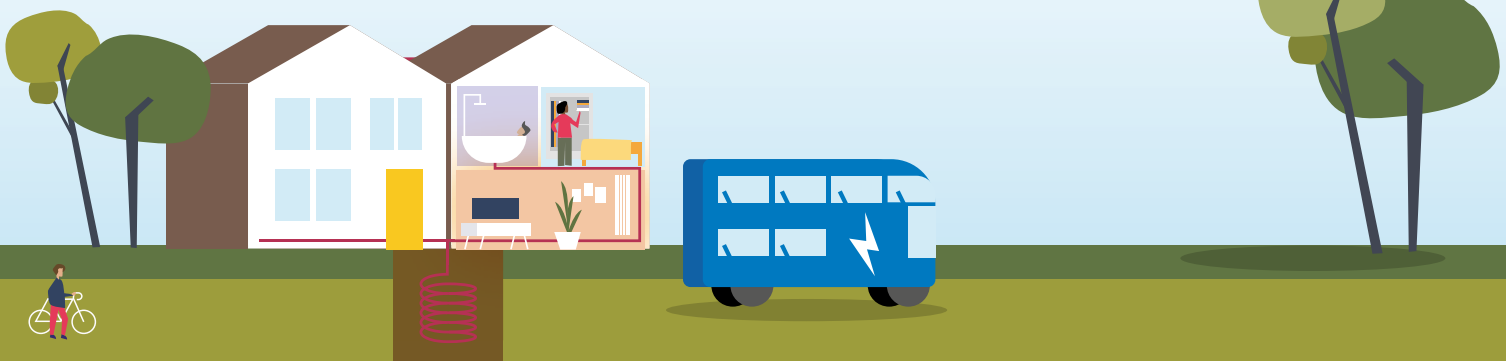
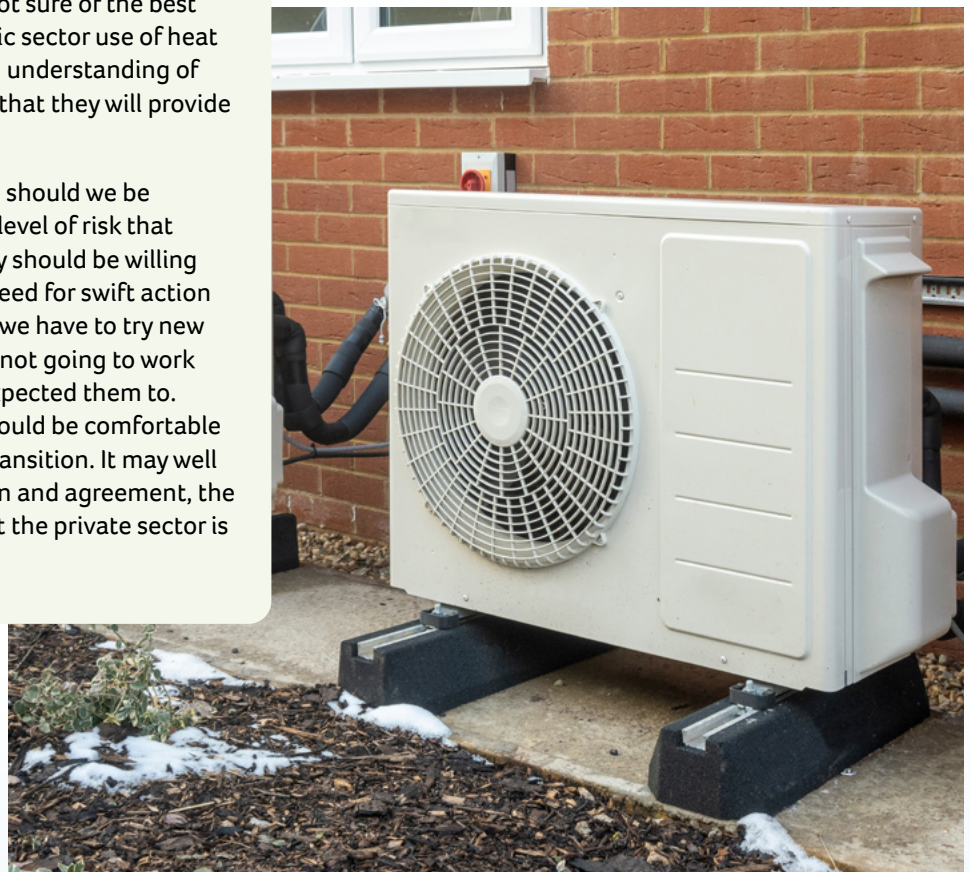
A project such as this, in a busy and crowded urban area, is always challenging to deliver. The project required specific planning permission, lots of drilling in busy City of London streets, and weekend road closures to enable the large heat pumps to be delivered to site. The active support of the Corporation was therefore central to success.



Businesses can shift their focus to provide added value offers to consumers, and this will help to encourage action. But only government can make it clear that net zero is not a ‘nice to have’: at some point, even the most expensive, most technically complex, most socially difficult changes will have to be made. In some cases, comprehensive, fair, robustly enforced regulation will be needed, both to ensure that everyone takes action and to give business confidence to invest in new products and services. It is also the role of government, and the regulators, to ensure that the costs and benefits of reaching net zero are shared equitably and to provide adequate support for people who cannot afford to invest in the technologies needed for decarbonisation.

Food for thought: risk taking

- Is there a role for the public sector in “user-testing” less familiar technical options for situations where businesses and households are not sure of the best way forward? Would greater public sector use of heat pumps, for example, help to build understanding of how to use them and confidence that they will provide thermal comfort?
- If this is a role for the sector, then should we be having a conversation about the level of risk that organisations using public money should be willing to take in this area? The urgent need for swift action on carbon emissions means that we have to try new things, and sometimes these are not going to work at all, or not work as well as we expected them to. Mistakes will be made, and we should be comfortable with this during a time of rapid transition. It may well be that, following open discussion and agreement, the public sector could take risks that the private sector is unwilling or unable to.



Trust in government

Trust is a core theme across all these elements of confidence building: trust that government is actually doing what it is saying; trust that everyone will (have to) decarbonise; and trust that this will be an equitable transition.

To build this trust, government must first of all make the end goal clear. The firm legal commitment to net zero is clear to those of us who work in the energy sector, but demonstrating what it means in practice will help to make it 'real' to those who do not. And government must also be clear about what will have to happen for us to reach this goal, including the less easy aspects.

Secondly, government must be seen to be consistent: all policy and spending decisions, both nationally and locally, must be demonstrably consistent with the roadmap to net zero. Indeed, in its **2021 Progress report**, the Climate Change Committee called for a Net Zero Test 'to ensure that all Government decisions are compatible with the legislated emissions targets'^{xv}. This does not mean that all policy decisions have to result in lower carbon emissions (until the energy system is fully decarbonised, this would be almost impossible), but it does mean that, taken as a whole, a national or local government policy and spending programme should keep us on track to net zero.

The need for political consensus

The clarity and consistency needed here, and the risk taking mentioned above, will all be easier if there is a consensus, within and across political party divisions, on the importance and urgency of taking action to reduce emissions. Difficult decisions that are potentially unpopular in the short term are easier if there is confidence that these will receive support from across Parliament. Whilst there is growing agreement on the need for action, there remains work to be done to ensure that all our elected representatives understand just how much has to change, how positive these changes could be, and what needs to be done to ensure that they happen.

At COP26, the goals for finance included unleashing the huge amount of private finance that is needed to deliver the transition to net zero. The COP Presidency argued that to do this, every financial decision must take account of the climate, including financial firms committing '**to ensuring their investments and lending is aligned with net zero**'^{xvi}. What must happen for private finance must also happen for government spending.

To date, there has been no official mechanism for demonstrating that this is the case. Whilst the **Green Book**^{xvii} can help to ensure that the impact on carbon emissions of any spending decision is recorded, it does not result in an overview of the net impact of government policy. And whilst the Climate Change Committee tracks emissions and the likely impact of climate-specific policy, it does not currently record the likely impacts of all government policy. The National Audit Office could choose to investigate this, but has not done so to date; and the Environmental Audit Committee could launch an inquiry, but this would be a one-off, not a systematic mechanism.

There are two obvious points where government could systematically demonstrate the consistency of its policy agenda with net zero: the budget and the King's Speech. Both are published with accompanying materials that could include an assessment of their carbon emissions impact. The budget is already accompanied by an assessment of its impact on household finances (which also includes the impact of other spending decisions since the previous assessment was published): a carbon emissions version of this report is what is needed.



What needs to happen now?

Many public sector organisations have plans to transition to net zero; many have already reduced their emissions considerably. But few have celebrated their successes in a way that encourages others to act. **There is an urgent need for the sector to share with others the steps it has taken, the lessons it has learned and the benefits it has secured from action to reduce emissions.**

The sector has the purchasing power to shift the economy towards net zero: **all public spending must require suppliers to be transitioning effectively to net zero, at a pace that is consistent with our 2050 target and the carbon budgets between now and then.** Individual elements of this are being put in place: the recently published **Government Property Strategy**^{xviii}, for example, recognises that ‘the estate needs

to be planned and managed to address decarbonisation of the estate’ but there is as yet no comprehensive set of rules covering the whole of the public sector. The **forthcoming legislation** to update the public procurement regime potentially offers the opportunity to ensure that this happens^{xix}. But until this is in place (unlikely before 2023 at the earliest), procurers must be encouraged to include carbon emissions reduction within their social value frameworks.

A mechanism is needed to ensure that every budget, spending review and King’s Speech are accompanied by a carbon emissions assessment, which sets out the impact of each policy or spending decision and summarises the overall consistency of the policy or spending package with the aim of net zero.

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- i https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_SPM.pdf
 - ii <https://poetsfortheplanet.org/>
 - iii See for example <https://www.gov.uk/government/publications/heat-and-buildings-strategy>; <https://www.energylivenews.com/2022/11/01/scottish-government-launches-national-public-energy-agency/>; and <https://www.gov.uk/government/publications/british-energy-security-strategy/british-energy-security-strategy#energy-efficiency>
 - iv See for example https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/987411/international-review-domestic-retrofit-supply-chains.pdf
 - v https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1033990/net-zero-strategy-beis.pdf
 - vi <https://civilservice.blog.gov.uk/2018/11/20/leading-by-example-men-championing-job-sharing-in-the-civil-service/>
 - vii Advisors to both the UK Government and Scottish Government clearly recognise this need. See for example: <https://www.theccc.org.uk/publication/sixth-carbon-budget/> and <https://www.gov.scot/publications/making-future-initial-report-2nd-transition-commission/>
 - viii <https://www.gov.scot/publications/synthesis-evaluation-local-heat-energy-efficiency-strategy-lhees-pilot-programme/>
 - ix <https://www.c40.org/what-we-do/raising-climate-ambition/inclusive-thriving-cities/thriving-cities/>
 - x For more information on social value in procurement, see <https://www.crowncommercial.gov.uk/news/social-value-procurement-ccs#>
 - xi <https://democracy.bristol.gov.uk/documents/b27887/Updated%20Citizen%20Assembly%20Report%20with%20Conclusion%20and%20Next%20Steps%2022nd-Jun-2021%2016.00%20Cabinet.pdf?T=9>
 - xii <https://www.mmu.ac.uk/business-school/business/sme-support/eco-i-north-west>
 - xiii For example, BEIS-funded research in 2020 found that 28% of people with mains gas heating described their current heating system as ‘environmentally friendly’ and across people with all types of heating system currently, 75% had never heard of an air source heat pump and 88% had never heard of a hydrogen boiler; https://assets.publishing.service.gov.uk/government/uploads/attachment_data/file/913541/transforming-heat-public-attitudes-research-report.pdf
 - xiv <https://ramboll.com/projects/ruk/eon-citigen-decarbonisation>
 - xv The CCC (2021) Joint Recommendations, 2021 Report to Parliament <https://www.theccc.org.uk/wp-content/uploads/2021/06/CCC-Joint-Recommendations-2021-Report-to-Parliament.pdf>
 - xvi <https://ukcop26.org/cop26-goals/finance/>
 - xvii <https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government>
 - xviii https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1100869/Government_Property_Strategy__2_.pdf
 - xix <https://www.gov.uk/government/consultations/green-paper-transforming-public-procurement/outcome/transforming-public-procurement-government-response-to-consultation>

