

## Introduction

I am responding as Secretary of Contin Community Council. The notice of consultation reached me by a roundabout route on 28 August. One month is a wholly insufficient time for a consultation of this nature and is not in line with the standard practice of allowing 12 weeks for a significant government consultation. Your advertising of a consultation is unlikely to be seen by all potential respondents and therefore there needs to be sufficient time for the notice to propagate via 'the grapevine' as well as to formulate and agree a response. The time available to me is too short to engage other members of my Council in formulating a response. We suggest that OFGEM review the breadth of response that they have received, and if this is not adequately representative, take additional measures to obtain a representative response, such as further advertising at community level and a time extension.

You may publish that this is the response of Contin Community Council, located in the Highland Region, Scotland. Post code IV14 9ES.

## Quality of consultation

OFGEM is repeating the failure of its 2023 consultation on Advanced Strategic Transmission Investment (ASTI) funding framework when it received very few responses, due to the above lack of notification, as the general public were unaware. I receive notice of Scottish Government consultations, but am not signed-up for wider consultations – the volume would be overwhelming.

The document is difficult to read since it contains many unexplained acronyms. Some of these may be familiar to network operators, but some require significant explanation for the public such as me. I'm merely a senior physical scientist, retired. Much of it is aimed at TOs, but there are substantial portions of the document that are of interest to the UK taxpayer, and/or the communities that will host the projects. The document needs to be accessible to both groups, but at the moment it is not. Different documents are needed in the future, covering principles and details separately.

The above text can be taken as a general comment on how the consultation has been conducted: poorly notified, insufficient time, jargon-heavy, inappropriate for all of the target audiences.

## Overall comments

The fundamental driver for this work is the UK Government's energy strategy. That document is not particularly helpful, being strong on hot air rather than being a clear vision of future needs.

We support in principle the transition to renewable energy and appreciate that our region has a part to play in this transition. However, we do not expect this transition to be to our unabated disadvantage.

However, we will go with "meet the wider network requirements of the next 10-15 years to facilitate connections of up to 86GW OWG, 45GW solar, 22GW batteries and 10GW of H<sub>2</sub> electrolysis plants in Scotland, among other low carbon demand and generation."

This is completely unclear about how much generation is being considered – the most reasonable interpretation is >131 GW. To be meaningful, battery capability needs to be stated in GWh as well as GW. There is no mention of the amount of onshore wind and pumped storage that are planned. We presume that capacities for wind are nameplate capacities and that net generation will be less. How much less? What is the average and peak demand? How will demand and supply be matched? How much storage is needed, how much dispatchable generation, and how much interruptible demand? Where might everything be located, since there are geographical constraints? If these are not known, there is no way a network can be designed.

At least part of the strategy seems to depend on hydrogen. We do not understand the perceived advantage of hydrogen: with current technology the end-to-end efficiency electricity-to-electricity is c. 35% and this falls further if storage is needed, and hydrogen is also an inefficient fuel if only low grade heat is needed, e.g. domestic heating. We can see its advantage for some situations needing high-grade heat or a chemical reductant, e.g. smelting iron ore, or as a reagent in chemical processes. But what is the realistic demand? How does the energy capacity of a hydrogen pipeline compare with the energy capacity of a HVDC underground cable?

Generation in Scotland and Scottish waters is expected to be well in excess of Scotland's plausible need, with the rest being exported. This is a political decision that has not been discussed with the people of Scotland. The Scottish Government has supposedly consulted on its energy strategy, but it was a very poor consultation that resulted in little response and no conclusions have been published.

## Concluding comment

The consultation document is about using UK Government funding to initiate projects by companies that are PLCs with overseas shareholders, which will then have an income guaranteed by the RAB mechanism. How does the UK Government plan to recover its investment? Since substantial UK government money will be spent on these projects, at some early point the full Green Book process must be engaged. This may not be appropriate at the level of individual projects, given their large number and that they are part of an integrated whole, but it must happen at some level. Our overall impression is that the network re-configuration is ill-thought-through, is being driven at haste, and is without adequate top-level control. It appears that there is no long-term plan, and that at least part of the problem may be market mechanisms, rather than physical infrastructure. The latter is not a good way to address the former.

There is no clear government strategy, either at UK or Scottish level, under which this work can sit.

More up-front planning is needed in order to reduce planning delays at project implementation stage.

## Detailed comments

P13 para 2.4. Some of these difficulties arise because of poor future planning and coordination. Why are generation facilities being consented to be built when there is no prospect of

connecting them to the transmission system? Why has the transmission system not been planned sufficiently far ahead? The current 'crisis' has been many years in the making. There needs to be a clear long-term plan to achieve the electricity transmission system that will be needed c. 2050; the current work feels like just a sticking plaster to 2035. Planning highly-disruptive transmission routes through populated areas requires time-consuming public involvement. Attempts to ride rough-shod over communities are likely to result in resistance and delay.

At the moment, we seem to have little more than a plan for a plan c. 2026 to be implemented before 2035. This timescale seems unrealistic!

P17 para 2.21. Unpacking this, it seems to say that there is not yet a basis for a plan.

P18 para 2.24. We are very wary of changes to the planning system that may reduce the input our community has into the planning decision. Transmission line projects are major developments for communities and the consenting process takes time for a reason – there is a lot of thinking to be done.

Obvious changes to make to the planning system are to make sure that electricity infrastructure is incorporated into regional plans via consultation, which then clear the way for extensive projects. It would also be sensible to bring all electricity infrastructure under a single planning system, rather than the current fragmentation.

P20, Table 2. We have seen none of this process with current projects. Level 1 (HND and update) has happened with no public consultation, and SSEN is now attempting Level 3 for the Spittal-Beaully line. There has been no public involvement in Level 2, which is a critical failing. This project will be the biggest thing that has happened in our area since the hydro schemes of the 1950s – we expect to have involvement with what is about to be inflicted on us.

P20. Para 3.3. Certainty of need is an essential planning criterion!

P 21 para 3.5 "We understand from TOs that in some cases, there could also be alternative options that have not been considered in tCSNP2, that could address the identified network needs. It is worth exploring these if they can do so at lower cost or greater speed. Where further detailed design results in material scope changes or increases to project costs then a refreshed assessment could explore if it is still economically beneficial to deliver the project." 'Economically beneficial' needs to consider the full extent of monetary and non-monetary costs. The test needs to be 'best value for the UK', rather than quickest or cheapest, which seem to be the current criteria.

OFGEM's mandate 'lowest cost to consumer' is fundamentally wrong, since this lowest cost is likely to be at the expense of the wider public and environment.

P22 para 3.8. This is daft – more haste and less speed!

Para 3.10. This immaturity will allow more extensive thinking to be given to determine the best value, rather than cheapest solution. Overhead lines will always be difficult to consent, so there really does need to be consideration as to how a network could be configured using HVDC technology underground. Such a network is likely to have a different topology from a network based on OHLs.

P25 para 3.23-24. I construe this to mean that mere changes in market arrangements could resolve some transmission issues, without the need for construction and its associated costs, uncertainties and delays. Surely, this has to be a priority!

P26 para 3.27. So don't do it. Slow down! The 2030 date is arbitrary and missing it will not destroy the planet. Building unnecessary infrastructure in the wrong place will be far more destructive. There was a lot of work done on a renewable future by Sir David Mackay a while ago, "Sustainable energy without the hot air". Let's dust this off, make some sensible predictions of what electricity production is sustainably possible by 2050, and then build towards that. An unconstrained, demand-led approach will fail, they always do. We cannot plan to use more than can feasibly be generated – this is a fundamental constraint.

Para 3.29. Agree, very strongly. By all means, fund Level 1 and Level 2 optioneering, involving properly interactive public engagement, but no further until Government has got as far as a proper strategy and a plan.

P 28 para 4.2 "Our ASTI framework has received support from stakeholders and is considered to be a key enabler for the timely delivery of transmission infrastructure." It does not go into detail as to who these "stakeholders" are; however, we suspect that they will be "stakeholders" that are set to benefit from these projects going ahead. We are aware of no engagement with our community that will host these projects. Was a wide enough scope of "stakeholders" consulted to ensure that this consultation is not meaningless?

P30 para 4.7. Agree in general with these ideas, except timeliness of delivery should not be at the expense of imposing solutions on an un-wiling public. In a democracy, things are done by consent. Consent can take time when difficult decisions and compromises are needed.

P35 para 4.19. Our experience of the Spittal-Beaully line is that SSEN's route selection software is not programmed to take proper account of community impacts, and their determinedly-qualitative optioneering process is well behind the current state of the art, providing no clear mechanism to resolve conflicting priorities. Key decisions are being made by faceless and unaccountable engineers far away, rather than by the communities affected by these decisions.

Para 4.20. It is essential that any project at this stage can show that high-level optioneering has demonstrated its clear advantage, against the test of 'best overall value to the UK'.

P43 para 4.55. What is the perceived benefit of competitive tendering and how will it be done? Competitive tendering does not necessarily deliver best value or lowest delivered price.

P58 para 6.2. If there is to be early competition, there must be an adequate specification that alternative bids can be assessed. This is difficult if there is no design. There must at least be an adequate performance specification, detailing success criteria. This will require an overall network plan, which appears to be some way away.

P65, para 7.1. "Consistent with our ASTI approach, while we always expect the TOs to operate efficiently, the focus should be on doing this initial development work thoroughly, quickly and holistically rather than on cost minimisation. As a minimum, we expect the TOs to have completed scoping and strategic optioneering works and identified a preferred solution to take forward to consenting." We welcome the idea that the approach should be holistic rather than based on cost minimisation. This requires OFGEM to move away from 'lowest cost to consumer' in its brief to TOs. It does not appear to state by whom the solution is preferred, the developer or the communities wholly affected by the installation of the infrastructure. These

large projects are fundamental and often disadvantageous changes for many rural communities, who deserve a proper say in how the design is chosen and progressed.

Para 7.3. The time taken to obtain consent is a major uncertainty in predicting completion dates. It would be unreasonable to constrain this by assuming that consents can be 'steam-rolled' through. Rather, there should be an allowance for a top-level planning process, which may take time, but could then ensure that projects are faced with 'green lights' and consents are issued promptly.

P66 para 7.5. This omits, as an essential first step, a realistic forecast of electricity needs and locations of need, the amount and locations of generation and storage, and balance between intermittent and dispatchable generation, needed to meet this need. Without this, it is not possible to design any network. We would suggest that there also needs to be consideration of whether the optimum approach is high power corridors using OHLs operating in the range 6-16 GW (as at present), or a more dispersed network that can be implemented using underground HVDC operating at 1-2 GW. The latter will meet MUCH less public opposition, and is potentially much more scalable and flexible in the face of inevitable future uncertainty. In the dying moments of the last government, the Minister admitted to Parliament that current data to make such a decision did not exist.

If decisions are made by developers, they will choose the route and method most beneficial to them, but there does not appear to be any insistence by OFGEM that ALL options be costed and proposed so that proper judgment can be made as to the solution that is the agreed optimum by all parties. Failure to do this will result in communities using all avenues in the planning process to oppose projects, with implications for cost and delivery dates.

P68 Section 8. Of course a scope-change governance process is needed. But the presence of an overall plan, currently absent, should minimise this requirement. Scope change will then be limited to genuinely unforeseeable events, rather than being just the inevitable consequence of inadequate planning, and a tendency we perceive for the whole process to be project-led, rather than plan-led.