

Q1. What are the risks and opportunities in relation to the development of micro grids and what issues do these raise for the connections framework in NI?

Response

The development of micro grids may be best suited to industrial urban locations where there are multiple large consumers. However, these areas are generally not suited to wind generation and so this is not a viable option for prosumers. Due to the nature of our business, all of our operational sites are located in relatively remote areas and at most of these locations we are the only large scale consumers.

Whilst many of our sites have potential for wind generation, this has not been possible due to a lack of export capacity on the existing grid. Where spare capacity is available, it is not financially viable due to the connection cost.

In summary, we are proactively trying to reduce our load through efficiency improvements and the deployment of renewable generation wherever possible. However, I do not believe that a 100% self-sufficient solution will ever be possible and due to our energy demand, we will always have some reliance on the Grid. Equally, due to the nature of renewable generation and in the absence of available battery storage technology at present, there will be an export requirement.

As battery technology develops, we are confident that a suitable storage solution will exist at some point in the future and this could facilitate micro grids. However, from the consultation document, it is not clear how the cost of the battery storage or other micro grid infrastructure would be distributed between the prosumer, neighbouring consumers and the DNO.

Q2. Do you agree with our guiding principles? Please expand your answer.

Response

Yes, agreed. However, it must be remembered that industrial consumers will drive the transition towards net zero and 80% of electricity from renewable sources by 2030. As noted in the consultation document a small contribution may come from more affluent domestic consumers but the vast majority will come from industrial users and this will require significant, long-term investment. The guiding principles state that the cost of change must be proportionate to customer benefit. This is most welcome and should form the cornerstone of the connection review. Industrial users (and indeed remote domestic properties) have historically borne significant connection costs and this must be re-balanced going forward.

Q3. Do you agree with our proposed scope in relation to this connection review? this includes:

- Are there other issues which you consider we should take into account. If so, please explain why

- Are there any connection areas we should remove from the scope of our review? If so, please explain why

Response

Yes – agreed.

Q4. Do you consider the current ‘partially deep’ connection boundary in NI appropriate? Please explain your rationale further and provide evidence.

Response

No. The current ‘partially deep’ connection boundary is inequitable as it is based on geographical location. Due to the nature of our industry, our operational sites are in remote areas, generally in the West of the province and far from the main urban centres. We are aware that the cost of new connections/upgrades at these locations is significantly more costly than for comparable connections in the Greater Belfast and Derry/Londonderry areas. This puts out business at a significant disadvantage to other manufacturers and mineral operators.

Q5. Do you consider a shallow connection boundary to be appropriate in the NI context? Please explain your rationale further and provide evidence. If so, which of the following connection types should have a shallow connection boundary;

- Demand only
- Generation only
- Demand and Generation
- An alternate connection type (for example Domestic/Non-Domestic connections)

Please explain your rationale further

Response

A shallow connection boundary should be used particularly for new generation connections to encourage more renewables. This will also increase self supply and reduce the need for new connection and increased supply for existing connections.

Shallow boundary should also be used for demand connections where the cost would exceed an agreed maximum limit. These could be set through consultation with developers and industrial users (as these groups make up the majority of connection/alteration applications).

Q6. Do you consider a shallow-ish boundary to be appropriate in the NI context? Please explain your rationale further and provide evidence. If so, which of the following connection types should have a shallow-ish connection boundary;

- Demand only
- Generation only
- Demand and Generation (for example Domestic/Non-Domestic connections)
- An alternate connection type

Please explain your rationale further.

Response

No.

Q7. Do you believe that moving to a more shallow connection boundary in NI will deliver NI renewable targets that otherwise would not be met? Please provide evidence to demonstrate your answer.

Response

Yes. Whilst various other factors will also dictate progress towards renewable targets, a more shallow connection boundary would certainly help to deliver this. Greater speed in the application/design/implementation process will also be required if renewable targets are to be achieved.

Q8. Please provide evidence on the potential impacts on energy affordability in NI if reinforcement costs were socialised further? What would the impact on energy affordability be in NI if household bills were to increase per annum by;

- 1-3%
- 4-7%
- 7-10%
- > 10%

Response

The above increases are all negligible when compared to the increase in energy costs which have been experienced since the invasion of Ukraine. Energy costs will fluctuate by more than 10% due to global events and commodity markets. These fluctuations are generally caused by influences which occur far outside Northern Ireland and beyond our regional control. Whilst this is separate to the proposed Tuos and Duos charges, these additional charges could be offset by a reduced reliance on third parties and a reduced need to import energy from abroad. To achieve this, a larger version of the proposed micro-grid would be required but this can only be achieved through increased deployment of renewables and better battery storage capacity.

In summary, any cost increase from Tuos/Duos charges should be offset by lower energy costs and a result of increasing dependent on renewables.

Q9. Can NIE Networks differentiate between RP6 allowances, RP7 business plan connection requests and how these differentiate and have been factored into the analysis that has been done on potential reinforcement connection costs analysis NIE Networks have completed?

Response

NIE Networks must differentiate between RP6 and RP7 if changes to customer connection costs are introduced. There also needs to be a transition period which accounts for applications/connection offers which are already in the system when changes to the charging scheme come into force. If significant changes are introduced to reduce the connection cost for an individual customer, it seems very likely that the volume of applications will significantly reduce. Conversely, when the changes are introduced it seems equally likely that there will be a significant rise in the number of new applications and this has the potential to completely clog the system for many years.

Q10. Do you think that a developer led or plan led is the best approach for the future development of connections in NI? Please explain your answer.

Response

A developer led system is the best approach. Due to the significant and on-going advances in renewable technology (in particular battery storage) a plan-led approach could not possibly keep pace.

In addition, a plan-led approach is unlikely to be helpful for existing industries which are seeking to install renewables or increase existing supplies.

Q11. Do you think the current 3-month timeframe for SONI and NIE Networks to issue a connection offer is appropriate? Please explain your answer.

Response

No. DNOs on the UK mainland (SP Energy Networks, National Grid, UK Power Networks etc) can issue a connection offer within a matter of weeks, not months. When the offer is accepted, mobilisation and deployment on site is also much faster than the service which is currently offered by NIE Networks.

National Grid covers a geographical area which is more than twice the size of Northern Ireland. In comparison, this area contains a huge number of customers and consumers and includes multiple large cities. In our experience, the time taken for National Grid to issue a connection offer is typically within 2-3 weeks.

Q12. If our legislation facilitated it, should obtaining planning permission be a prerequisite in order to receive a grid connection? Please explain your answer.

Response

No. Due to the timescales involved in both planning applications and new grid connections/upgrades, these two aspects should not be linked.

If planning permission were to become a prerequisite this could potentially add months or even years to the process in some instances.

Whilst we understand the rationale to avoid uncertain development from 'hoarding' capacity a similar counter-argument can be made; if a developer has a realistic chance of securing a connection offer why should he/she wait for potentially 2-3 years for a planning approval. It is quite possible, or even likely in some cases, that the same connection offer might not be available by the time that a planning permission has issued.

Q13. If our legislation facilitated it, do respondents consider any other issues associated with the current queue process? Or that a different approach to managing the connection queue, would result in quicker connections? If so, what would that be? Are there any lessons to be learned from other jurisdictions?

Response

As stated in response to Q11, other DNOs in the UK seem much better equipped to process connections than NIE/SONI. These DNOs are managing much larger networks across much larger areas and customer demand is considerably greater. From a customer viewpoint, we feel that NIE Networks seems under-resourced. Whilst the deployment of infrastructure is relatively quick, it is our perception that the application/design/survey teams are under-resourced and are in need of additional experienced staff.

Q14. Do you have any other information relevant to the subject matter of this Call for Evidence that you think we should consider?

Response

No.

Q15. Please list any connection issues you have raised in order of priority. Please explain your reasoning behind your priority.

Response

Priority 1 – to reduce the connectee cost of demand/export connections for remote operating locations, particularly in the West.

Priority 2 – to reduce overall connection timescales but in particular, to condense the timeframe between the submission of an application and the connection offer.