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14th September 2021

Electrical Authority

Lightforce Ltd Submission on Consultation Paper – "Updating the regulatory settings for distribution networks"

Q.1 Have you experienced issues relating to a lack of information or uneven access to Information?

In the regular operation of our business, we frequently experience inaccessibility to information and when we do have access, this can lack an appropriate standard of detail. There also appears to be a distinct lack of understanding amongst some retailers relating to simple requests such as provision of household (HH) consumption data. It also appears at times that there is a reluctance amongst gentailers/ retailers to share information if the collector has a vested interest in the DG Industry.

One recent example relates to a request from a customer to have their HH consumption data provided for the purposes of sizing a solar system on a commercial site. The energy retailer has a direct interest in another solar provider and the company representative informed our client firstly that they did not have access to HH data as they had an old meter. This site was constructed in 2020 and hardly seems correct.

Upon further investigation the client was told they can only provide the HH data if they are exploring solar options with the affiliated solar provider. This is in direct contravention of the Code. It took a sternly worded email and having a Lightforce staff member made a signatory on the account to get the required information.

We do receive information in multiple formats and to varying standards of quality, which can be challenging. The current focus on the code, particularly section 6, provides an opportunity to standardise formats across retailers that will improve the customer experience and access to distributed generation.

We have also experienced a lack of detail around the subject of export limitation. We have had some large systems (>200kWp) that have had an export limit of 10kW placed on these with congestion being cited as the concern. These are not areas that are referenced in the lines company congested area notifications and are central to large commercial and industrially zoned developments.

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The lack of transparency on these occasions makes it difficult to put forward a commercial case to a customer when we have only very high-level data to work with. For one distributor, we are informed that they will review this once the system is installed.

However, this poses a significant risk to both the customer and ourselves as the business case is contingent on an appropriate export FIT and ability to export to the grid.

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Q.2 What information do you need to make more informed investment and operation decisions?

Having a clearer understanding of areas where there are congestion challenges would be very useful in informing our operational decisions and therefore future investment.

A simple tool such as a heatmap can help us identify where those congestion areas are and thereby set expectations regarding export limits prior to selling larger systems. We would welcome further discussions on this point.

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Q.3 What options do you think should be considered to help improve access to information?

We would advise establishing a more robust and user-friendly third-party participant process to facilitate information gathering in preparation of providing quotes to potential customers. Having a simple verification email sent to customers to allow a registered third party to get information-only access would be a significant step forward, and allows sufficient controls to ensure confidentiality requirements are adhered to. The current process is onerous for existing customers.

As mentioned above, providing increased transparency on congestion challenges would be advantageous in that it will allow a clearer understanding of the network challenges. Transparency also allows for potential solutions to be explored by businesses like Lightforce.

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Q.5 Do the Electrical (Safety) Regulations require review? If so, what changes do you think are needed (a) in the near term and (b) in the longer term?

Lightforce considers a standardised qualification for solar installers would be advantageous to the industry, to consumers, and to New Zealand's energy future. Currently, we have a low level of installer regulation which can lead to varying quality, and health and safety outcomes for customers and installers, and can hurt solar uptake in the near and longer term. This qualification can help ensure consistency of quality across the board, while also unlocking a new skills pool in New Zealand that will continue to grow significantly over the next 10 years.

A qualification such as the Australian CEC certification can provide a template for this endeavour. At Lightforce, we are also establishing a Lightforce Training Academy that is geared towards achieving safe, quality installs from our teams while keeping them up to date with the latest in regulatory standards.

Relating to standards, we recognise there is some general confusion between the standards being referred to by lines companies. Whilst the current legal standard is AS/NZS4777.1 2005, there is a later version (2016) that is sometimes referenced. We have adopted a position of working towards the later standard but an update here would remove any ambiguity.

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Q.6 Does Part 6 remain fit for purpose? If not, what changes do you think are needed (a) in the near term and (b) in the longer term?

Increase in threshold.

With the increase in the number of residential installations occurring, we believe an increase in the residential system threshold is warranted. We would like to see this increased to 15kWp which better reflects a large residential installation.

Freedom to engage inspectors. We also recognise the delays caused by Distributors assigning their own inspectors to DER installers. This creates bottlenecks in DER operations if that inspector has a full load and will only get worse as more installations come online.

It is our recommendation that DER installers should be free to engage other qualified inspectors who may be free so there are no unnecessary delays for both DER teams and consumers due to resource constraints. This also promotes efficiencies and improved customer experience as competition will drive better service and lower prices.

Conditions for anti-competitive behaviour. Another major concern for us is the continued acquisition of solar providers by distribution companies, giving rise to the possibility for conflicts of interest. We have directly experienced issues relating to equal and timely access to information from certain distribution companies, whereby we were in a competitive situation to provide a customer solution. On winning this job, it took 5 months to get approval. This has greatly hindered our ability to compete as the delays force a rethink on energy generation options. The continued acquisition of solar providers by distributors can only drive anti-competitive behaviour, particularly during tendering / procurement phases for projects.

One solution could be a mandated restriction for a subsidiary company to operate in the parent company's distribution network. Alternatively, but less ideal, having industry transparency and an open book audit comparing response timings and export limitations imposed on subsidiaries vs competitors might be another solution.

It is our understanding that similar scenarios are being evaluated globally with the current review of section 6 of the code, it is an opportunity to follow suit locally.

It is our recommendation that there needs to be a higher level of regulation and monitoring of distributor subsidiaries so that there is a fair playing field for all DER industry participants. This is absolutely essential to creating and maintaining competitive conditions in the market, which can only benefit consumers and NZ's energy market.

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Q.7 Is there a case to be made for minimum mandatory equipment standards for DER equipment, specifically inverter connected DER?

Yes, we believe this is a sensible move. Minimum standards will result in tangible benefits to the consumer and can prevent low quality equipment entering the market. As a minimum, there should be an appropriate confirmation that the equipment is fit for purpose. This then helps protect both the quality of the installation, but also the integrity of the wider DER and transmission infrastructure.

As standards are currently available, the transition to mandated standards can be actioned quickly, giving tangible benefits to consumers as soon as possible.

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Question 8. What standards should be considered to help address reliability and connectivity issues?

To ensure greater efficiencies across the distribution network, we have carefully considered some key issues which we detail in this document. These issues can impact reliability and connectivity and may continue to hinder competition within the industry. However, we also underline potential solutions that can enhance competitiveness and bring positive benefits for consumers such as lower costs, better quality products, and quicker installs to meet growing demand.

The key problem areas identified. As the electricity industry moves to greater penetration of DERs, reliability and connectivity becomes even more critical. However, Distributed Generator (DG) application processes and their requirements vary widely across each of the 29 networks. This makes submission of applications an extremely difficult undertaking to navigate. As pointed out in the EA's 'Updating the Regulatory Settings for Distribution Networks' document (July 2021), applications have become:

- Time consuming (due to understanding each network's requirements)
- Difficult (due to onerous administration required, timeliness of responses etc)
- Potentially leading to interpretation errors.

We also note that where key contacts from each network is absent due to sickness or annual leave, the processing of applications can be stalled.

Another issue is that of duplication of data provided. Information provided on, for example, COC and RoL forms have to be duplicated on other forms such as commissioning sheets, livening forms, and import/export meter applications to name a few.

The flow-on negative effects of DG Applications not being processed in time can result in DER designers / installers incurring more resource and other costs to manage what should be a simple process. This has the potential to force businesses out of solar altogether, or reduce uptake as costs are passed to consumers.

Uneven access to information is another barrier. We see the lack of information and uneven access to information as a hindrance on being a competitor in the NZ market. It is also a limitation to the mass up-take of solar energy nationwide. This can hinder the uptake of renewable energy within our communities and ultimately hinder New Zealand reaching its climate change goals.

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Solutions that are future-proofed to accommodate growth. As mentioned in EA's Regulatory Settings document, a standardised template that covers all networks may help resolve this. However, as the market share of DERs in NZ continues to grow, we would suggest a fully automated DG process that is future-proofed to accommodate growth in applications.

We would also suggest a tracking facility within this automated process that allows applicants to check progress and status of their applications. We currently operate an internal system to track these and regularly need to follow up Distribution Companies when mandated timelines are not met. Looking ahead, it will become increasingly critical that network teams have the relevant skills and capacity to process each application within the agreed timeframes. As demand and supply of Solar PV systems grow their share of the NZ market, we suggest each network's teams have staff with solar expertise on board to facilitate processing and removing other potential delays to applications that currently exist.

We suggest timelines for processing DG applications are as follows:

- under 10kW, processed within 7 days
- under 500kW, processed within 14 days.
- 500kW plus, processed within 30 days.

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Question 9. Is there a case to look at connection and operations standards under part 6. With a view to mandating aspects of these standards?

As outlined in our response to Question 8, we put forward the case for standardising the application process as these currently lack consistency across network areas.

While there are benefits to each network following their own standards (flexibility to reflect local conditions or update their standards quickly to reflect an improved technology or process), the lack of consistency often leads to frustration between networks and DER designer/installers who have to operate across multiple networks. This should increase the quality of submissions as the requirements are well understood.

To enhance efficiencies and accelerate growth and competitiveness in the NZ electricity market, we advise:

1. Standardised DG application process and templates across all networks

2. A fully automated DG process that is future-proofed to facilitate growth and consistency in applications. For eg tracking facility that allows applicants to check progress / status of their application.

3. Staff with Solar energy expertise on each network.