

The Future for DNSPs: Self-Service Connection Tools

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By Ian Cooper, Head of Innovation Delivery at EA Technology

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This shift is brought forth by revolutionary tools like VisNet Connect, designed by EA Technology. This software tool stands out for its capability to provide network operators with deep insights into the impact of new connections, while offering customers instant connection estimates and quotes.

"At present, VisNet Connect self-service tools serve over 16 million homes and businesses across the UK, modelling Low Voltage (LV) networks fed by over 365,000 substations."

Making its mark in the market four years ago, this tool is currently adopted by 80% of DNSPs in the UK and is now ready for implementation globally, in Australia, New Zealand and beyond!

SELF-SERVE CONNECTIONS - THE CUSTOMER JOURNEY

The journey towards adopting self-service connections begins with addressing key challenges faced by network operators and customers. These challenges often revolve around 1) handling a high volume of speculative connection requests and 2) managing internal design efforts.

On the issue of speculative requests, VisNet Connect leverages the value of open data and turns this into action. Presenting not only the location of assets but also their available capacity the tool enables

customers to add their chosen supply point whether for a house, EV charger or other connection. This capability, enabled by the modelling of either or both low and high voltage (LV and HV) networks, provides customers with insights into available capacity and the convenience to receive specific, tailored quotes for their connection requests.

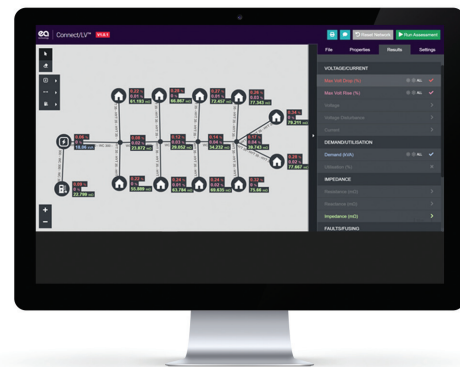


Figure 2 VisNet Design – An online software tool that helps network operators design and model network connections

On the issue of managing internal design effort, VisNet Connect provides greater power to an internal connections team to be able to assemble connections quote packs quickly and easily. Staff without an electrical background can design a compliant connection, carry out an electrical assessment, create a bill of materials and produce a quotation plan in no time at all.

For more complex situations we have tools like VisNet Design specifically developed for network designers. It enables networks to



Figure 1 VisNet Connect – A self-serve connection tool that allows customers to design connections in detail and obtain firm quotes

be imported, fully integrated with Geographic Information Systems (GIS) or the manual modelling of networks in either schematic or geospatial views. Complex LV connections can be designed including reinforcement of existing networks using the intuitive user-friendly interface. The LV electrical assessments apply a statistical approach to diversity which has been the industry standard in UK for over 30 years, updated with modern technologies.

For DNSPs seeking to take their first steps into enabling self-service we have VisNet ConnectLite. It enables a customer to put in their unique requirements and location, presents your available network capacity and provides a tailored price estimate for their connection.

Overall, the comprehensive VisNet Connect software accommodates numerous potential connection use cases, with the level of self-service or check and review adjustable based on the DNSP's risk appetite. This suite of tools aim to streamline the workflow of connection requests from initial inquiry to a full-self-service, enhancing efficiency and customer satisfaction.

CASE STUDY - HOW NIE NETWORKS IS USING THE VISNET CONNECT TOOLS

NIE Networks has adopted both VisNet ConnectLite and VisNet Design. This adoption was driven by the need to conduct internal LV network design studies and to provide instant self-service budget estimates to customers. The implementation for internal users is already live with plans to extend the service to public in March 2024.

This case study exemplifies how VisNet Connect and its associated tools are revolutionising the way network operators and customers interact, providing a seamless, efficient and transparent process for managing and requesting new connections.

The success of NIE Networks in leveraging these tools showcases the potential benefits for other operators and highlights the transformative impact of self-serve connections in the energy sector.

DATA CHALLENGES AND OVERCOMING THEM

The quest for perfect data is a universal challenge. Issues such as

missing customer information, connectivity discrepancies and incomplete asset attributes are common across the industry. Despite these hurdles, we can leverage existing connected networks and employ methods like geospatial analysis to enhance data visibility.

Our approach is collaborative; we work closely with clients to help identify and address gaps in connectivity between new and existing assets.

A frequent revelation in our work is the discovery of a much wider variety of cable types in use than officially recorded. Through a detailed review process, we guide clients towards rectifying these inaccuracies directly at the source, within their master data systems. This not only benefits the immediate application of tools like VisNet Connect but also improves the client's overall data management practices.

"Imperfect data holds potential value that can be unlocked with the right approach."

This perspective is crucial for justifying the benefits of further investment in data quality improvements. In cases where it is challenging to make a convincing case for such investments, demonstrating how flawed data can be leveraged to achieve tangible benefits provides a strong argument.

In conclusion, the shift towards self-service connections for electricity supply, spearheaded by the adoption of tools like VisNet Connect, is not just a testament to technological innovation but also a reflection of the industry's forward-thinking approach to customer service and network management. As we look towards a future marked by global adoption and continuous improvement, the promise of a more efficient, transparent, and customer-centric electricity supply system becomes increasingly tangible, aligning closely with the broader goals of sustainability and Net Zero 2050. [T&D](#)

*Keen to learn more about VisNet Connect
and our range of self-serve connection tools?*

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HVDS
Supply Security

New Zealand | +64 21 663 491
greg.linton@hvds.co.nz
www.hvds.co.nz

ea
technology

Australia | +61 7 3256 0534
neil.davies@eatechnology.com
www.eatechnology.com.au

Disassembled 11kV Current Transformer, photographed November 2004.