EIP103 - Modular Standardised BSP

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01
The Problem
EIP 103: Background

BSP (Bulk Supply Points) are 132kV Substations connecting:

• Demand and generation customers. 100-150 further connections are expected by 2030. (Currently 41).

• 132kV network to the 33kV and 11kV network. Total of 380 BSPs on NGED’s network.
EIP 103: Problem

General process to connect

- Project Planning Phase
- Information Phase
- Design Phase
- Construction Phase
- Energisation Phase
- Commissioning Phase

Timescales and costs to connect at 132kV can vary greatly. Many factors can impact time to complete 132kV design and installation.

Large connection queue that needs further reduction.
EIP 103: Similar innovation projects

NGED NIA – Take Charge
Compact charging solution with a multitude of use cases at 33kV.

Can similar benefits be realised at 132kV?
Solution
Solution Expectations

What can we do to reduce connection timescales?

The solution must:

• Produce a standardised, modular 132 kV substation design.
• Consider a wide variety of use cases for 132 kV connections, using a small number of standardised variants.
• Include Customer/Stakeholder Engagement and research to ensure all requirements are identified including identifying likely future customers and volumes.

Other Considerations

• Firm vs Non-Firm connections.
• Voltage levels for specific use cases.
• Restrictions on space for certain use cases. Footprint vs time/cost drivers.
• EIP 100 and 105.
Solution Constraints

Comply with legislation and license conditions

Import and Export Connections

Reduce time and cost

Reduce footprint and planning requirements

Modular BSP
Solution Market Stakeholder engagement

Market

- Estimated connections at 132kV are up to an additional 150 by 2030.
- Generation and Demand customers.
- New connections such as hydrogen production, HGV EV charging hubs?
Contacts

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