

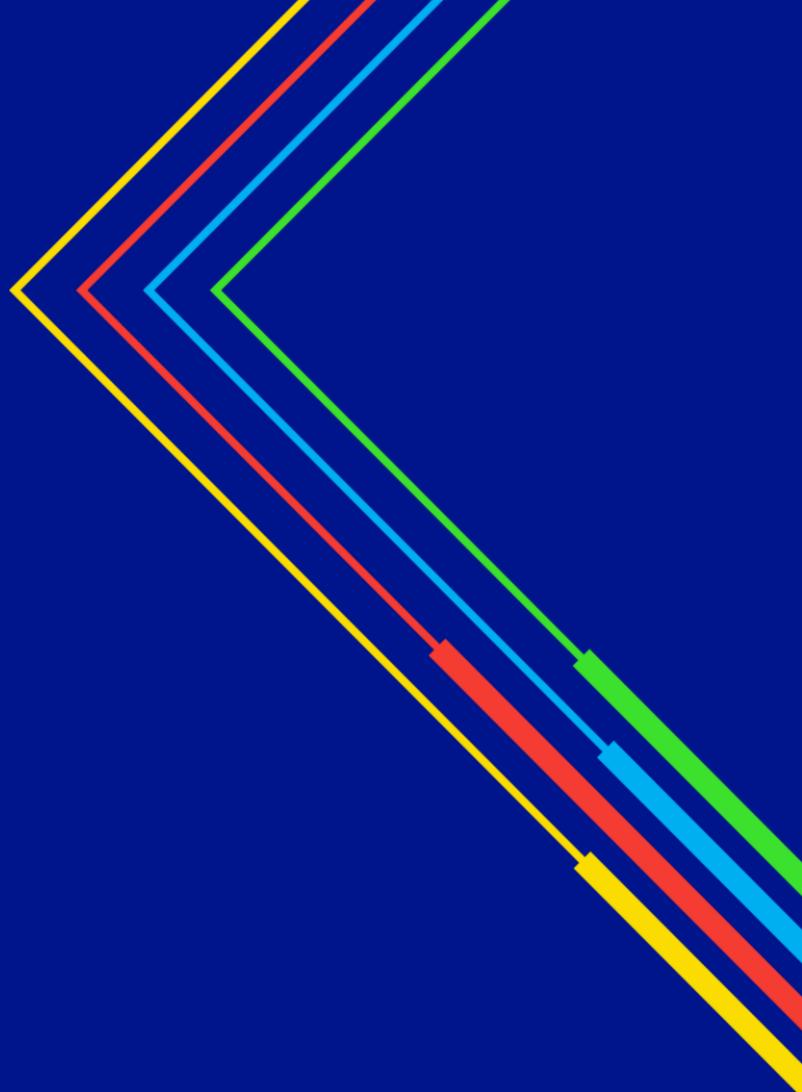


**Electricity  
Distribution**

# **EIP103 - Modular Standardised BSP**

**Greg Shirley – NGED, Innovation Engineer**  
Tuesday 5<sup>th</sup> March 2024

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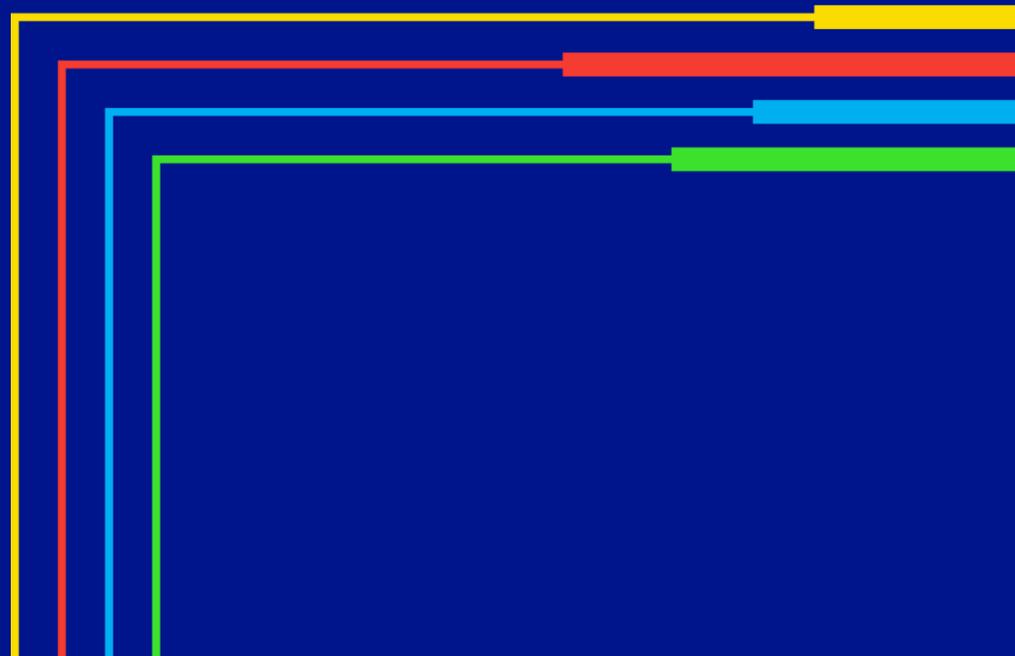
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**03** Contacts

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# 01

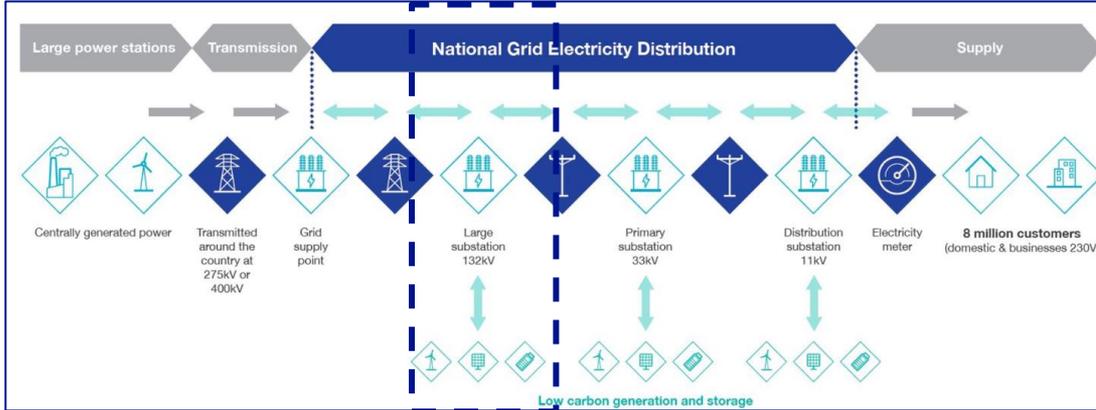
## The Problem



# 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.



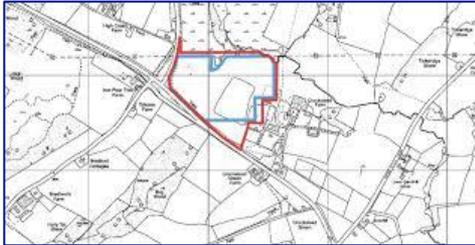
# EIP 103: Problem

General process to connect



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.



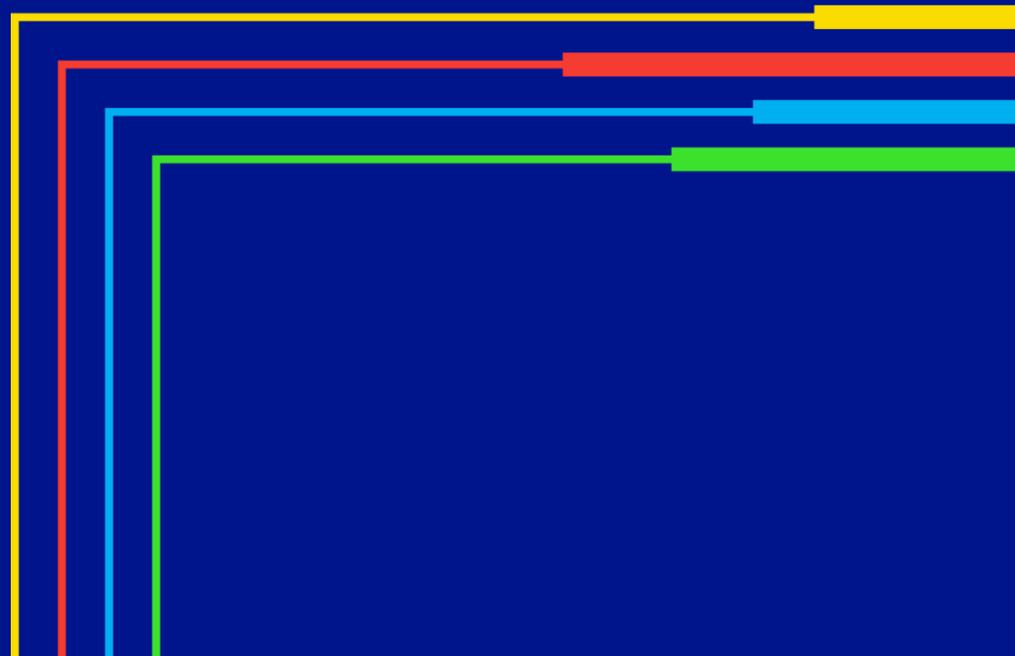
Can similar benefits be realised at 132kV?

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02

Solution

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# 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

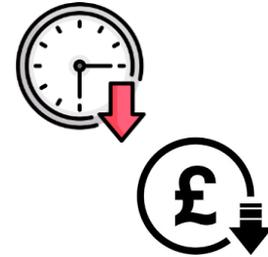
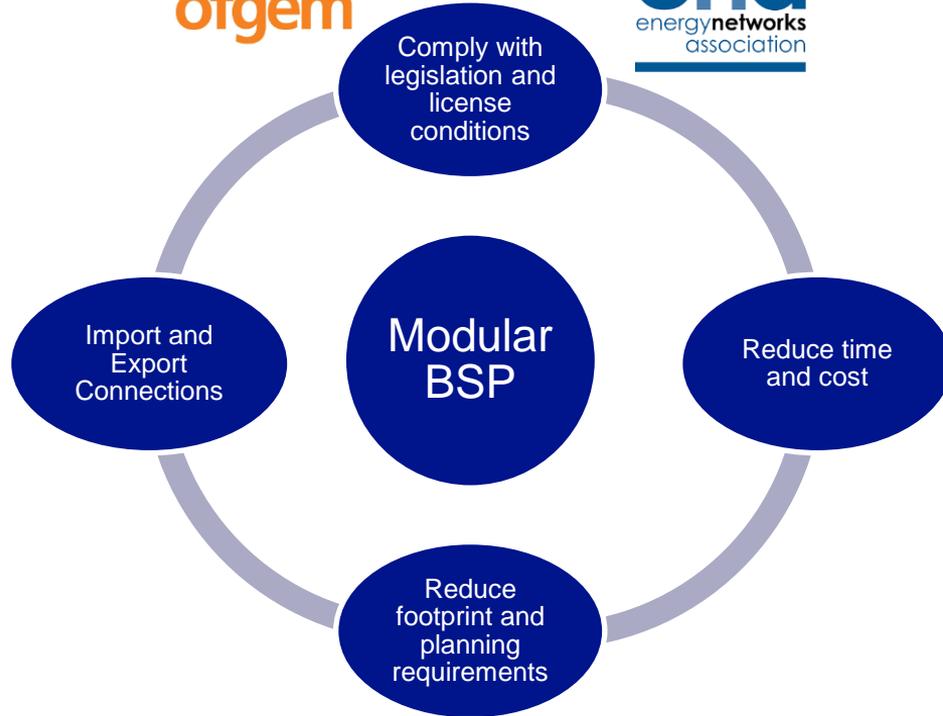
- Firm vs Non-Firm connections.
- Voltage levels for specific use cases.
- Restrictions on space for certain use cases. Footprint vs time/cost drivers.
- EIP 100 and 105.

# Solution Constraints



ofgem

ena  
energy networks  
association



# Solution Market Stakeholder engagement

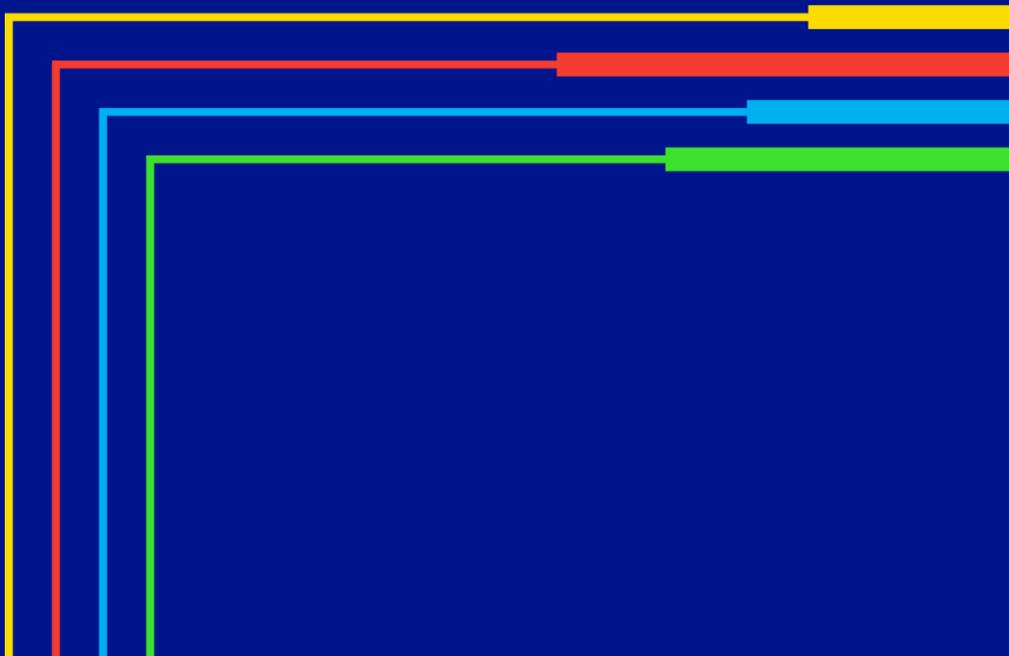
## Market

- 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?



# 03

## Contacts



# Contacts

## Innovation Team

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