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MR RYAN PIDDINGTON

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23 March 2023

Dear Ryan,

RE: COVID-19 RECOVERY (FAST-TRACK CONSENTING) ACT 2020 – REQUEST FOR FURTHER INFORMATION – WAIUKU WIND FARM PROJECT

LET Capital Limited has engaged APD Engineering to respond to question 5 of the RFI as outlined by the Ministry for the Environment when responding to a consent application for a Windfarm at Waiuku at the border of Auckland and Waikato region. Below are detailed responses for the applicable questions relating to Power System studies and concept designs.

Kind Regards

VIMESHAN PILLAY

PRINCIPAL ENGINEER – POWER SYSTEMS

Response to question 5 of the RFI from the Ministry

1. To select an economical connection point:
 - a. the concept design will need to be completed, this will cover details of asset placement and cost,
 - b. followed by power system studies, that will determine the technical aspects, the connection, and the ability to meet EIPC obligations.

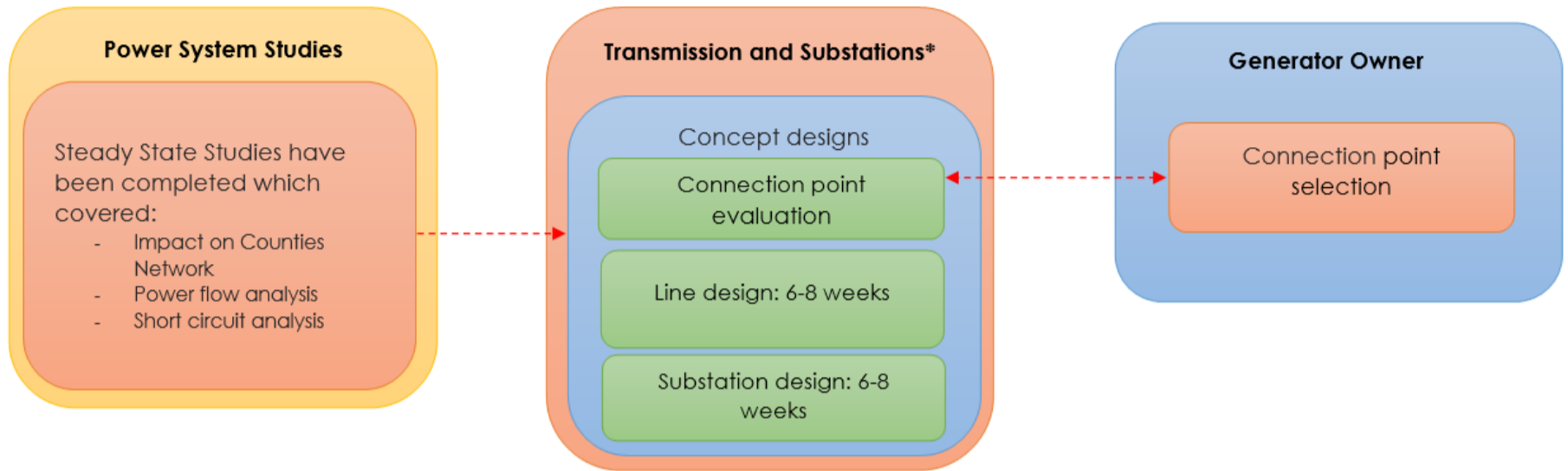


Figure 1: initial stage workflow

*Transmission and Substations below refers to the plant required for the connection to the grid, including the collector station

2. Part of the concept design phase will include conversations with Counties Energy and land Councils. Approval process can be discussed at the time and an agreement with conditions can be drafted at concept design phase outlining all the conditions from Counties Energy and land Councils that need to be addressed in a timely manner.
3. While the project still remains flexible with the two connection options, an additional check has been done via the Transpower Envision Generation Opportunities Tool to assess potential risk to the project. Through this exercise, it is noted that the capacity to accommodate new generation at the Glenbrook 33kV clean bus is more than 100MW.

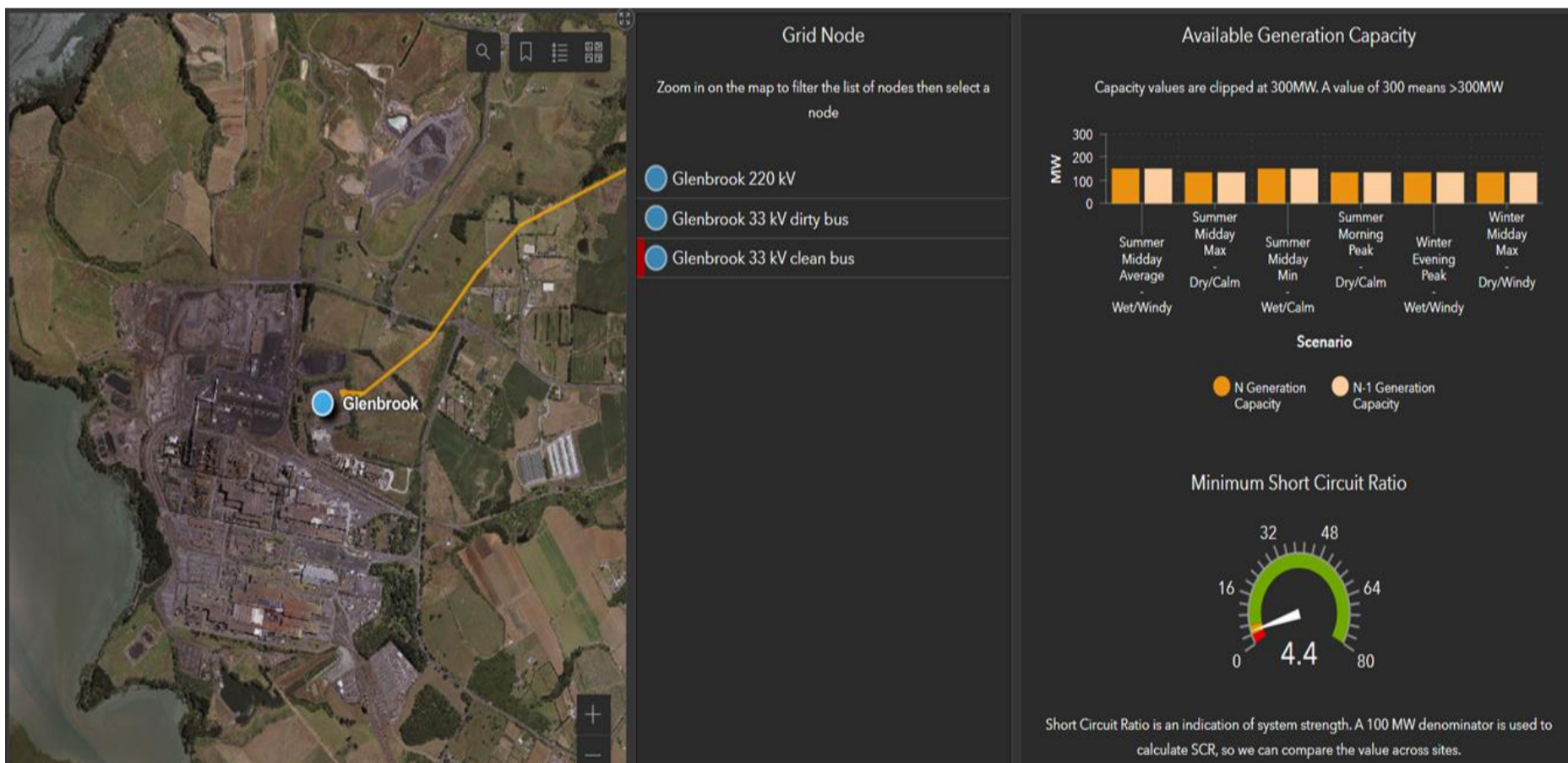


Figure 2: Snapshot from Envision for Glenbrook Transpower Substation

Response to question 5 of the RFI from the Ministry (Continuation)

4. Details of estimated power system studies and electrical design are shown in Table 1.

| Task | Timeline |
|--|--------------------|
| <u>Power System Studies</u> | 24-36 weeks |
| 1. Initial Feasibility Study (Complete) a. Assess potential connection options | 2-4 weeks |
| 2. Steady state studies (EIPC Compliance) a. Reactive power capability b. Power Quality and Harmonics c. Short Circuit Study | 6-8 weeks |
| 3. Dynamic Studies (RMS, EIPC Compliance) a. Voltage and frequency stability b. Fault ride through study c. Transient Stability Study | 8-12 weeks |
| 4. Compliance testing and model validation | 8-12 weeks |
| <u>Design Tasks (Electrical)</u> | 42-52 weeks |
| 1. Concept design a. Transmission b. Substation | 12-16 weeks |
| 2. Detailed design a. Transmission b. Substation | 30-36 weeks |
| *Estimate only and is subject to change once connection options are finalised. It does not include internal Wind Farm design tasks. | |

Table 1: power system studies and electrical design estimated timelines.