

# Network support options for the Coromandel region - ROI

## Responses to submitted questions

<u>Q2</u>	<u>Question</u>	<u>Response</u>
1	For the MW solutions required, what data is available on expected or historic need that can be analysed for the design of modular/seasonal solution strategies? The cost of a full year available solution vs scaled/modular seasonal solutions could substantially reduce the contracted cost.	Demand curves and data highlighting the days and times of year requiring network support are in the attached file: <i>Demand curves 2019.xlsx</i> . More detailed information on these requirements will be provided to any parties involved during the RFP stage.
2	Control and regulation of the dispersed generation or demand response is a requirement of the proposal. What distributed generation and load visibility is available to inform control systems?	Powerco has visibility of real-time zone substation and feeder loads, and could use them to inform an “armed” status to inform the provider when their solution would be required to be on standby. Forecasting could be undertaken to provide advance notice of this armed status – to be discussed with the respondent later in the procurement process.
3	When commands are sent from PowerCo NOC what communication protocols and methods are standard practice?	Powerco NOC sends commands over SCADA. The communication protocol is DNP3.
4	What evaluation of demand response resources have been undertaken within the PowerCo network? Can that data be made available to inform the ROI?	None to date.
5	What detailed load information is available to help respondents identify potential demand response participants within your network at both commercial and residential scale?	Powerco is not in a position to make customer information available as part of this ROI process.
6	What is PowerCo’s level of interest in solutions designed by multiple parties, who each offer specific expertise?	Multi-party responses will be evaluated. Details of the solution package would need to identify the costs, benefits and risks involved and the complexity of the arrangement.
7	Does PowerCo have a firm preference for respondents to own and operate assets, or would PowerCo consider other models?	All models will be considered, however Powerco does not wish to own assets that would be unique on its asset base.

8	What is current cost estimation for the traditional network solution?	<p>Powerco is considering both typical “poles and wires” and diesel generation solutions for the three identified needs. These solutions have varying costs and benefits to our customers.</p> <ul style="list-style-type: none"> <li>• Coromandel alternative supply: \$5m for backup diesel generation, no short-term traditional solution identified.</li> <li>• Matarangi area alternative supply: \$3m for diesel generation, \$10 for subtransmission line and zone substation</li> <li>• Kopu-Tairua capacity alternative: \$2m for diesel generation (while also relying upon generation from other projects), \$14m for subtransmission line upgrade</li> </ul> <p>This information is publicly available in our 2021 Asset Management Plan in section 15.4. We are continuing to refine these options with the intention of reducing the delivery cost.</p>
9	As solutions need to be scalable/modular as time goes on over the 10-20 years, at RFP will PowerCo have a preferred pricing basis for evaluating responses?	Powerco will be basing its decisions for option selection on providing best value to customers in the region. Powerco has no current preferred pricing basis for respondent’s solutions.
10	Are the requirements in Matarangi Area additive i.e. a total of 4.5MW capacity could be called in some periods?	No – the backup supply requirement includes the backfeed constraint requirement.

Q3	Question	Response
1	Reliability Requirements (pg. 5) – Can you provide a definition of Limited Advance Notice?	All three network needs in the ROI are for post-contingency support i.e. following a fault on our network. When the fault occurs, we require the network support to operate within the response times given. Powerco can however give notice of the times the service <i>could</i> be required based on power demand, and inform the network support service to be armed/ready.
2	Reliability Requirements (pg. 5) – What is the penalty regime for failing to provide service?	There is currently no designed penalty regime – this would be discussed at a later stage of the process.
3	Kopu-Tairua 66kV sub transmission line capacity alternative; capacity (pg. 6) – How/when will we do we know when this need changes if it is influenced by the Coromandel/Matarangi requirement?	Following the ROI process, Powerco may refine the requirements of the Kopu-Tairua alternative depending on interest in the other requirements (which may result in Powerco seeking less than 10MW for this alternative).
4	Kopu-Tairua 66kV sub transmission line capacity alternative; time of year (pg. 6) – Confirm winter is a future need based on demand growth expectations	Correct – currently the residential winter peak is a future need. Public holidays during winter are a current risk.
5	Kopu-Tairua 66kV sub transmission line capacity alternative; time of year (pg. 6) – Is a more specific break-down of which holiday periods are of most concern?	All public holiday periods cause increases in the network capacity risk. Christmas and New Year are longer duration risks due to holiday activity. Most long weekends exhibit similar trends. Demand curves and data highlighting the days and times of year requiring network support are in the attached file: <i>Demand curves 2019.xlsx</i> . More detailed information on these requirements will be provided to any parties involved during the RFP stage.

<b>Q4</b>	<b>Question</b>	<b>Response</b>
1	Table 1 – Response time - we understand it is the timeframe for the alternative solution to take over once interface signal is received?	Correct. Response time is following a signal from NOC.
2	Section 3 – (C) Responsiveness - response time (lead in time) to set up once project is awarded?	This is referring to the response time of the solution offered to operate/provide support once a signal is sent from our NOC.
3	Confirm connection voltage, are they all 11kV?	Powerco has considered 11kV the likely solution. Powerco is open to other options for providing network support if they are viable, either distributed solutions connected to the low voltage network or connected to the subtransmission network (66kV in the Coromandel area).
4	What is the criteria for environmental impact?	As per Powerco’s environmental principles, the following environmental factors should be considered: <ul style="list-style-type: none"> <li>- Impacts on ecology eg protected vegetation, wildlife habitat, biosecurity</li> <li>- Impacts resulting in erosion, sediment and fire</li> <li>- Impacts on heritage and natural significance</li> <li>- Impacts from hazardous materials and contamination, eg asbestos and PCBs</li> <li>- Impacts from pollution eg water discharge, oils, fuels and chemicals</li> <li>- Associated emissions eg carbon, SF6, dust, noise</li> <li>- Associated waste and resource use eg water use, waste and use of recovered materials.</li> </ul>
<b>Q1</b>	<b>Question</b>	<b>Response</b>
		Sent 9/4/21
1	Is the 1 December 2022 COD a firm date for all sites, if we elect to provide solutions for multiple sites in the ROI, or can we identify the first site that will meet the target COD date and stage the other sites after?	Any proposal that looked to vary the commencement date, across a part or full solution package, would need to identify the costs, benefits and risks involved in restaging the deployment.  Further clarification: 16/4/21

		No - this is not a firm date. Completion prior to the Christmas period maximises the benefit to customers in the region. However other proposed dates will be considered in conjunction with the change in benefit to customers. Different proposed dates for the three sites is acceptable.
L1	<b>Question</b> Received 16/4/21	<b>Response</b>
1	Are we assuming any timescales on resource consent or do assume this is already in place before being selected the contractor?	Powerco are making no assumption about consenting timelines on a third-party network support solution. We do recognise that the status of a provider's consent will impact on the feasibility of delivering the service by summer 2022.