

How will DER and Flexibility play its role?



Members



Background

- Cortexo & Our Energy article series 2021
- Joint submission by Cortexo, Our Energy, SEANZ & Vector on “*Updating the regulatory settings for distribution networks*”

“.. a learning-by-doing approach with industry-led development of products and practical solutions which are scalable across the market”

FlexForum

- Small enough to manage and progress, big enough to cover stakeholder voices
- ***Starting the discussion*** about common language & product definitions - these are essential for buyers and sellers to easily transact flexibility
- Hopefully resulting in some real world implementations as the FlexForum progresses
- Open and transparent <https://www.araake.co.nz/services-projects/flexforum>

Goal & Purpose

The Flex Forum goal is to:

- Create a set of actions to integrate DER into the electricity system and markets, to maximise the benefits for Aotearoa New Zealand.

The Flex Forum purpose is to:

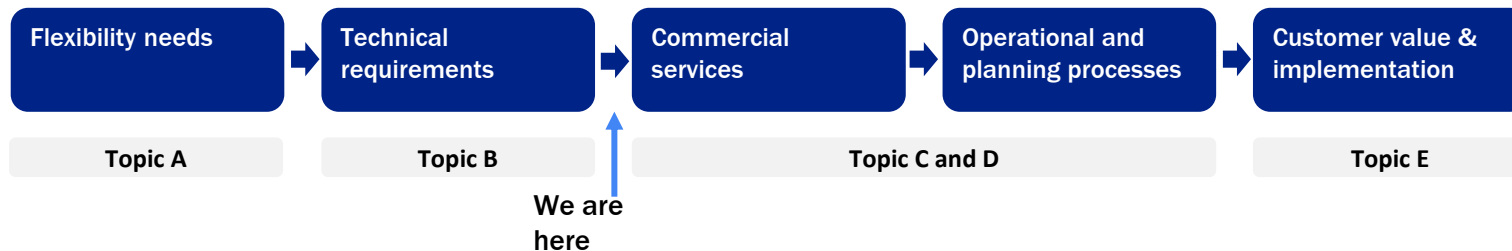
- Deliver three objectives - the things it will do - to integrate and maximise the value of DER
 - Identify the minimum specifications of the services that DER can provide, to who, when, where, how and for how much
 - Identify the practical, scalable, and no regrets steps to use the services that DER can provide
 - Support ongoing learning and collaboration across the electricity sector on real world deployment of solutions to realise the benefits of DER, including identifying and resolving barriers
- Build a broad consensus across the electricity sector and others interests for the set of actions to integrate DER
- Build capacity and capability to implement the set of actions to integrate DER.

The focus is common language and practical products & services to start transacting flexibility

Scope and progress

1

Identify the minimum specifications of the services that DER can provide, to who, when, where, how and for how much



2

Identify the practical, scalable, and no regrets steps to use the services that DER can provide



3

Support ongoing learning and collaboration across the electricity sector on real world deployment of solutions to realise the benefits of DER, including identifying and resolving barriers.

An ongoing approach to engagement

Your input is needed

How flexibility is transacted - when, where, how, for how much - will be decided through learning by doing

The answer requires collaboration, both now and through the learning that follows

- See the thinking to date and keep up to date on progress via the website hosted by Ara Ake
- Email us at info@flexforum.nz to share your thoughts or if you want to talk to us

<https://www.araake.co.nz/services-projects/flexforum/>



FlexForum

The goal of the FlexForum (the Group) is to create 'A set of actions to integrate distributed energy resources (DER) into the electricity system and markets to maximise the benefits for Aotearoa New Zealand'.

Learn more >

(A) Situations where flexibility might be useful

Price optimisation

- Electricity (spot and retail) price risk management
- Fuel stock management
- Arbitrage / optimise distribution charges & costs
- Maximise generation revenue

Corrective congestion management

- Network reliability: avoid/shorten outages at peaks
- Network reliability: voltage management

Predictive congestion management

- Network security: manage risk of outages at peaks
- Network planning: right-size connection and infrastructure costs.

Generation adequacy

- Power system security of supply
- Network reliability: avoid or shorten planned / unplanned outages
- Network resilience: avoid or shorten outages due to major asset failure

System and network balancing

- Frequency Keeping
- Instantaneous Reserve
- Over-frequency Reserve
- Voltage Support
- Black Start

(B) Identifying technical requirements

For each situation where flexibility might be used, we have identified the key technical information about the solution

This information is needed by flexibility suppliers for decisions about when and when and how to supply flexibility



Planning information

- Detection event or trigger
- Location
- Procurement & deployment timeframe
- Response lifespan & commitment period
- Form of response



Operational information

- Type of response
- Activation notice period
- Activation / deactivation speed
- Response duration

(C) Commercial frameworks and incentives are needed

Clear market signals and service requirements are required to unlock the value of flexibility and maximise the benefits for Aotearoa and all energy consumers.

