30 June 2023

Commerce Commission

Infrastructure Regulation

Wellington

Attention: Hristina Dantcheva

Email: infrastructure.regulation@comcom.govt.nz

Tranche 1 Information Disclosure Requirements – additional reporting June 2023

Background

1. The Commerce Commission reviewed the Information Disclosure requirements last year and published the final decision on 25 November 2022[1] for Tranche 1 changes.
2. Table 2 (pages 21 to 36) from the final decision is included in this submission to indicate whether the disclosure requirement was met by:
    - Inclusion in the 2023 AMP at 31 March 2023 or,
    - Additional disclosure at 30 June 2023 (attached to this submission) or,
    - Inclusion in the Information Disclosures 31 March 2023 which will be reported at the end of August 2023 or,
    - Disclosure from 2024 onwards only.

Additional Disclosures

3. Attached are the 3 reports which have been identified as requiring reporting by 30 June 2023 which are also publicly disclosed on Orion's website:

[1] https://comcom.govt.nz/__data/assets/pdf_file/0035/299438/Targeted-Information-Disclosure-Review-for-Electricity-Distribution-Businesses-Tranche-1-final-decisions-reasons-paper-25-November-2022.pdf

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- New Connections Process (included in Annexure A to this document below, with this document published at https://www.oriongroup.co.nz/corporate/corporate-publications/asset-management-plans/)
- Outage reporting (included in Annexure B to this document)
- Innovation Strategy (included in Annexure C to this document and more information available on Orion's website at https://www.oriongroup.co.nz/corporate/innovation/)

Concluding Remarks

Please do not hesitate to contact me on 03 363 9898 should you require any further regarding the additional reporting.

Yours sincerely

Rob Tweedie
Regulatory Manager

- Table 2: Summary of final decisions **AMP2023 Section 4.2 and Section 8.6.19**

Amendment Q1 – expand ID requirements related to how much notice of planned interruptions is given to consumers, including planned interruptions that are booked but not carried out.

Objective	*Final decision*	*Disclosure timing and format*
Disclosed information reflects the consumer's experience of quality of service, enabling a more meaningful assessment of quality.	Q1 was proposed as a single amendment in the draft decision and PIP. Our final decision is to proceed with two separate amendments: Q1A and Q1B. Q1A – Narrative disclosure: We require EDBs to describe how they provide notice and communicate planned and unplanned interruptions, including any plans for changes or improvements in this area. Q1B – Quantitative disclosure We are deferring the consideration of the quantitative disclosure of how much notice of planned interruptions is given to consumers, including planned interruptions that are booked but not carried out to Tranche 2.	Q1A – Narrative disclosure: • Narrative information is first disclosed by 31 March 2023 in the EDB's 2023- 2033 AMP, or by 30 June 2023 in a separate document(s) on the EDB's website. • There is no requirement for director certification of this disclosure for 2023. From 2024 onwards, this disclosure is subject to the same director certification requirement as the AMP. Q1B – Quantitative disclosure: We are deferring the consideration of the quantitative disclosure to Tranche 2.

Amendment Q2 – add ID requirements on power quality. AMP Section 4.5.3.3

Objective	*Final decision*	*Disclosure timing and format*
Disclosed information reflects the consumer's experience of quality of service, enabling a more meaningful assessment of quality.	Our final decision is to add a requirement for EDBs to describe their practices for monitoring voltage (including any plans for improvements) including: [34] • what the EDB is doing to develop and improve practices for monitoring voltage quality on its low voltage (LV) network (e.g., the EDB may provide reference to any work they are undertaking with other companies); • work it is doing on their LV network to address any known non-compliance with the applicable voltage requirements of the Electricity (Safety) Regulations 2010; • how it is responding to and reporting on voltage quality issues when it identifies them, or they are raised by a stakeholder (e.g., the EDB may provide reference to performance over the previous period to give the forward plan context); and • how it is communicating the work it is doing to improve voltage quality on its LV network to affected consumers.	• Narrative information is first disclosed by 31 March 2023 in the EDB's 2023-2033 AMP, or by 30 June 2023 in a separate document(s) on the EDB's website. • There is no requirement for director certification of this disclosure for 2023. From 2024 onwards, this disclosure is subject to the same director certification requirement as the AMP.

Amendment Q3 – add ID requirements on practices for connecting new consumers and altering existing connections.

Partly covered by AMP2023 Section 4.2.3, the rest addressed in this submission on new connections

Objective	*Final decision*	*Disclosure timing and format*
Disclosed information reflects the consumer's experience of quality of service, enabling a more meaningful assessment ofquality.	Q3 was proposed as a single amendment in the draft decision and PIP. Ourfinal decision is to proceed with two separate amendments: Q3A and Q3B. Q3A – Narrative disclosure: We require EDBs to describe their practices for connecting consumers andmaking alterations to existing connections, including: • the EDB's approach to planning and management regarding connecting new consumers or making alterations to existing connections (offtake andinjection connections); • how the EDB is seeking to minimise the cost to consumers of new oraltered connections; • the EDB's approach to planning and managing communication with consumers about new or altered connections; and • commonly encountered delays, issues, and potential timeframes fordifferent connection types. Q3B – Quantitative disclosure: We are deferring the consideration of the quantitative disclosure of timetaken to set up new connections and make alterations to existing connections to Tranche 2.	Q3A – Narrative disclosure: • Narrative information is first disclosedby 31 March 2023 in the EDB's 2023- 2033 AMP, or by 30 June 2023 in a separate document(s) on the EDB's website.[37,38] • There is no requirement for directorcertification of this disclosure for 2023. From 2024 onwards, this disclosure is subject to the same director certification requirement asthe AMP. Q3B – Quantitative disclosure: We are deferring the consideration of thequantitative disclosure to Tranche 2.

Amendment Q4 – add ID requirements on customer service, e.g., customer complaints. AMP (sec 4.3.1, sec 4.2.6)

Objective	*Final decision*	*Disclosure timing and format*
Disclosed information reflects the consumer's experience of quality of service, enabling a more meaningful assessment ofquality.	Our final decision is to add a requirement for EDBs to describe their currentcustomer service practices including: [39] • the EDB's customer engagement protocols and customer service measures – including customer satisfaction with the EDB's supply ofelectricity distribution services; and • the EDB's approach to planning and managing customer complaint resolution . We define the term 'complaint' consistently with the definition used by Utilities Disputes Limited (UDL) in the Energy Complaints Scheme rules, wherea complaint means: 'an expression of dissatisfaction made to or about a Provider where a response or a resolution is explicitly or implicitly expected. For example, a complaint may be made by letter, email, phone call, text message or a post on a social media page maintained by the Provider, but noton a social media page maintained by the Complainant or a third party'.[40]	• Narrative information is first disclosedby 31 March 2023 in the EDB's 2023- 2033 AMP, or by 30 June 2023 in a separate document(s) on the EDB's website.[41,42] • There is no requirement for director certification of this disclosure for 2023. From 2024 onwards, this disclosure is subject to the same director certificationrequirement as the AMP.

Amendment Q5 – add ID requirements on information about customer charters and guaranteed service level (customer compensation) schemes, e.g.,information about existing schemes **Note only "if any": We have a community engagement webpage as opposed to a customer charter. Only scheme is the irrigation interruptibility scheme https://www.oriongroup.co.nz/corporate/latest-news/irrigation-interruptibility-testing/**

Objective	*Final decision*	*Disclosure timing and format*
Disclosed information reflects the consumer's experience of quality of service, enabling a more meaningful assessment of quality.	Our final decision is to require that EDBs publicly disclose up-to-date copies of: • the EDB's existing customer charters including guaranteed service levels, if any; and • information about existing customer compensation schemes (if any) that it has in place.	• EDBs are required to publicly disclose this information from 31 March 2023. • There is no requirement for director certification for this disclosure.

Amendment Q11 – refine ID requirements on interruptions by clarifying definitions to ensure successive interruptions are recorded consistently. **ID template Schedule 10(i)**

Objective	*Final decision*	*Disclosure timing and format*
Disclosed quality information is comparable between EDBs and consistent over the time series, allowing both better assessment of quality and greater ability to learn and improve ID requirements and associated summary and analysis.	Our final decision is to modify the definition of System Average Interruption Frequency Index (SAIFI) values and System Average Interruption Duration Index (SAIDI) values to ensure EDBs record successive interruptions as an additional SAIFI value and SAIDI value if restoration of supply occurs for longer than one minute. We are also introducing a transitional reporting requirement in Schedule 10(i) for the 2024, 2025, and 2026 disclosure years, where EDBs that have not previously been applying the 'multi-count' approach continue to record their SAIFI and SAIDI values on the same basis that they employed as at 31 March 2023, in addition to separately applying the multi-count approach.	• EDBs are first required to disclose SAIFI and SAIDI values consistent with this definition by 31 August 2024 for disclosure year 2024 in Schedule 10(i). • EDBs are required to also report Transitional SAIFI and Transitional SAIDI values using their old methodology for disclosure years 2024, 2025, and 2026 only. • This disclosure is part of Schedule 10, and is therefore subject to audit and director certification.

Amendment Q13 – refine ID requirements on third party interference interruptions by breaking down into more specific categories, such as vehicle damage, 'dig in', overhead contact, and vandalism. **ID template Schedule 10(ii)**

Objective	*Final decision*	*Disclosure timing and format*
The usefulness of disclosed information is maximised bytargeting the requirements where appropriate.	Our final decision is to require EDBs to break down reporting of interruptionscaused by third-party interference in Schedule 10(ii) to include commonly occurring interruptions resulting from external contractors or members of the public. The new table of additional third-party reporting categories includes: • 'Dig-In': means any unintended damage to any underground networkasset caused by a third party; • Overhead Contact: means any form of unintended damage to any aboveground network asset caused by contact that is not related to vegetationor animals; • Vandalism: means any intentional destruction of, or damage to, anynetwork asset; • Vehicle Damage: means any unintended damage to any network assets including poles, ground mounted transformers, pillar boxes, but excludingoverhead lines, caused by a ground vehicle; and • Other.	• EDBs are first required to disclose this information by 31 August 2024 for disclosure year 2024 in Schedule 10(ii). • This disclosure is part of Schedule 10,and is therefore subject to audit and director certification.

Amendment D2 – add requirements on new connections likely to have a significant impact on network operations or asset management priorities AMP2023 Section 5 and 7

Objective	*Final decision*	*Disclosure timing and format*

Stakeholders better understand how EDBs are planning and preparing for decarbonisation.	Our final decision is to require EDBs to disclose a description of:
	• how the EDB assesses the impact that new connections will have on its network, including:
	  ○ how the EDB measures the scale and impact of new connections;
	  ○ how the EDB takes the timing and uncertainty of new connections into account; and
	  ○ how the EDB takes other factors into account, e.g., the networklocation of new connections; and
	  ○ how the EDB assesses and manages the risk posed by uncertainty regarding new connections.
	For the purposes of providing its responses to the above, an EDB is not required to disclose any commercially sensitive or confidential information.
	For the purpose of this requirement, "new connections" include:
	• new connections on the network;
	• demand connections, distributed generation, or storage capacity; and
	• either individual connections or multiple connections considered in aggregate.
	For the purpose of this requirement, an EDB must use its discretion to assess the impact a new network connection may have, e.g., an EDB may consider a large number of small connections will have a significant impact in aggregate.
		• Narrative information is first disclosed by 31 March 2023 in the EDB's 2023 AMP, or by 30 June 2023 in a separate document(s) on the EDB's website. [43,44]
		• There is no requirement for director certification of this disclosure for 2023. From 2024 onwards, this disclosure is subject to the same director certification requirement as the AMP.

Amendment D4 – add reporting requirements on EDBs' innovation practices

Standalone – published on website at https://www.oriongroup.co.nz/corporate/innovation/ and included in this submission

Objective	*Final decision*	*Disclosure timing and format*
Stakeholders have better understanding of how EDBs are adapting to the changing environment and technical settings in which they operate, which is especially important given the impact decarbonisation will have on EDBs.	Our final decision requires EDBs to describe their innovation practices, including a description of: • any innovation practices the EDB has planned or undertaken since the last AMP or AMP update was published, including case studies and trials; • what the desired outcome of any innovation practices is, and how it may improve outcomes for consumers; • how the EDB measures success and makes decisions regarding any innovation practices, e.g., how the EDB decides whether to commence,commercially adopt, or discontinue any innovation practices; • how the EDB's decision-making about innovation practices may depend on the work of other companies, including other EDBs and providers of non-network solutions; and • the types of information the EDB uses to inform or enable innovation practices, and their approach to seeking that information. In providing its responses to the above, EDBs are not required to publicly disclose any commercially sensitive or confidential information. We will define 'innovation practice' as follows: means an activity or practice, in respect of the supply of electricity lines services, that is focused on the creation, development or application ofa new or improved technology, process or approach, and includes an innovation project as defined in the EDB IM determination.	• Narrative information is first disclosed by 31 March 2023 in the EDB's 2023-2033 AMP, or by 30 June 2023 in a separate document(s) on the EDB's website. [45,46] • There is no requirement for director certification of this disclosure for 2023. From 2024 onwards, this disclosure is subject to the same director certification requirement as the AMP.

Objective	*Final decision*	*Disclosure timing and format*
	EDBs must apply their judgement to assess what practices they consider may be innovation practices under this definition. Innovation practices can includean innovation project as defined in the IM determination, but can include a much broader set of practices.	

Amendment AM6 – Amend the definition of 'overhead circuit requiring vegetation management'

Postponed by the Commission

Objective	*Final*	*Disclosure timing and*
Key asset management information is more accurate and/or accessible to stakeholders, and better accounts for the challenges facing EDBs around maintainingresilience and managing increased weather-related impacts on their networks.	We have decided to postpone a decision on this issue until Tranche 2.	n/a

Amendment AM7A/AM7B – improve lifecycle asset management planning provisions (vegetation, assumptions)

AM7 covered in AMP2023 Section6.7 for both AM7A and B

Objective	*Final decision*	*Disclosure timing and format*
Improved confidence in forecasts disclosures: • **Give stakeholders greater confidence in the robustness of EDB spend forecasts; and** • **Support price-quality path resets, as changes in EDBs' operating environment may mean historic spend requirements are no longer a good indicator of future spend requirements.**	Our final decision is to proceed with two separate amendments: AM7A and AM7B. AM7A: EDBs are required to provide information on vegetation management-related maintenance, and summary discussion of the approach and assumptions that underpin the process used for vegetation management. AM7B: EDBs are required to provide the assumptions and rationale used to inform capital expenditure forecasts for asset investments.	▸ EDBs are first required to disclose this information by 31 March 2024 in their AMPs. [47] ▸ This disclosure is part of the AMP, so it is subject to director certification requirements.

Amendment AM8A/AM8B – improve lifecycle asset management planning provisions (processes, forecast assumptions) and provide additional information on data and models AMP2023 Section 5.5 and 6 for AM8A and Section 5.6 for AM8B

Objective	*Final decision*	*Disclosure timing and format*
Improved confidence in disclosures of forecasts: • **Give stakeholders greater confidence in the robustness of EDB spend forecasts; and** • **Support price-quality path resets, as changes in EDBs' operating environment may mean historic spend requirements are no longer a good indicator of future spend requirements.**	Our final decision is to proceed with two separate amendments: AM8A and AM8B. AM8A: For AM8A we are amending clause 3.11 of Attachment A to require EDBs to provide a description of: • how asset management data informs the models that an EDB develops and uses to assess asset health; and • how the outputs of these models are used in developing capital expenditure projections. AM8B: For AM8B we are amending Part 12 of Attachment A to include a requirement that EDBs provide information regarding its consideration of non-network solutions to inform its expenditure projections (capex and opex). This must include an explanation of the approach and assumptions the EDB used to inform these expenditure projections.	• EDBs are first required to disclose this information by 31 March 2024 in their AMPs. [48] • This disclosure is part of the AMP, so it is subject to director certification requirements.

Amendment AM9 – add explanation and exploration of scenarios, in addition to providing a single point forecast in forecasting schedules Voluntary

Objective	*Final decision*	*Disclosure timing and format*
Improved confidence in disclosures of forecasts: **Give stakeholders greaterconfidence in the robustness of EDB spend forecasts; and** **Support price-quality path resets, as changes in EDBs' operating environment may mean historic spend requirements are no longera good indicator of future spend requirements.**	Our final decision is to retain the requirement for EDBs to release single point forecast estimates. With regard to Schedules 11a(i), 11(b) and 12(c),we have included the option for EDBs to voluntarily describe the options and considerations made in their assessment of forecasting scenarios in Schedule 15.	• EDBs may first voluntarily disclose thisinformation in Schedule 15 by 31 March 2023 for disclosure year 2023.

Amendment AM10 – disconnections data ID Template 9e(1) and Template 12C(1)

Objective	*Final decision*	*Disclosure timing and format*
Improved confidence in disclosures of forecasts: • **Give stakeholders greater confidence in the robustness of EDB spend forecasts; and** • **Support price-quality path resets, as changes in EDBs' operating environment may mean historic spend requirements are no longer a good indicator of future spend requirements.**	Our final decision is to include decommissioning data in the information EDBs are required to disclose. Under current requirements, EDBs disclose actual and forecast new connections on their networks but not disconnection related information such as decommissioning data. We will require EDBs to disclose actual installation control point (ICP) decommissioning data (by consumer type) in Schedule 9e(i).	◗ EDBs are first required to disclose this information in Schedule 9e(i) by 31 August 2023 for disclosure year 2023. ◗ There is no director certification requirement for disclosure year 2023 for this disclosure. From disclosure year 2024 onwards, this disclosure will be subject to director certification requirements as part of Schedule 9.

Amendment AM13 – require EDBs to make a confidential disclosure of operational expenditure on cybersecurity ID Template 9e(1) and 12C(1)

Objective	*Final decision*	*Disclosure timing and format*
Improved confidence in EDB disclosures:	Our final decision is to require EDBs to disclose to the Commission their actual and forecast cybersecurity expenditure (opex and capex) in Schedules 6b(ii), 11b, 6a(ii) and 11a(ii), respectively. In order to ensure the confidentiality of this information is protected, EDBs may disclose confidential versions of Schedules 6 and 11 that are different to the versions they publicly disclose. The information regarding cybersecurity expenditure will be disclosed to the Commission only: it will not be included in information published for stakeholders. We are defining cybersecurity as: "The application of technologies, processes and controls to protect systems, networks, programmes, devices, and data."	• EDBs are first required to disclose actual cybersecurity opex and capex for disclosure year 2024 by 31 August 2024 in Schedules 6b(ii) and 6a(ii), respectively. • The above disclosures are part of Schedule 6 and therefore subject to audit and director certification requirements. • EDBs are first required to disclose forecast cybersecurity opex and capex for disclosure year 2024 by 31 March 2024 in Schedules 11b and 11a(ii), respectively. • The above forecast disclosures are part of Schedule 11 and therefore subject to director certification requirements.

Amendment A1 – changes to recoverable and pass-through costs definition Actioned by the Commerce Commission

Objective	*Final decision*	*Disclosure timing and format*
ID is aligned with our otherregulatory rules.	We are making the following updates to definitions: • 'pass-through cost' shall have the meaning as specified in clause 3.1.2(1) of the electricity distribution input methodologies (EDB IMs);[49] • 'recoverable cost' shall have the meaning as specified in clause 3.1.3(1) ofthe EDB IMs.	• EDBs are first required to disclose information consistent with these definitions for disclosure year 2023 by31 August 2023. • Information disclosed as part of Schedules 1 and 3 is subject to auditand director certification requirements.

Annexure A:

The Commerce Commission

Infrastructure Regulation

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New Connections application and associated processes

This paper has been prepared to comply with the additional requirements set out by the Commerce Commission published on 25 November 2022, by 30 June 2023 in respect of Tranche 1 Information Disclosures update 30 June 2023, Amendment Q3 – add ID requirements on time taken to set up new connections, specifically describing their customer connection practices.

A "Quote" is defined as a connection application that has been "reviewed" and "approved" and a quote returned to the customer.

To consider and measure acceptable timeframes for processing, applications are categorised in order to measure and differentiate between complexity of connection applications and customer needs. Current reporting capabilities support performance indicators that endeavour to exceed customer expectations.

Reporting from previous 12 months (April 2022 to March 2023) were as follows:

- Greenfields: 67% approved within 5 days of application and average days of 8 days.
- Brownfields: 42% approved within 20 days and average days are 34 days.
- Temporary Connections: 79% approved within 10 days of application.
- Large Connections in excess of 100A: 68% approved within 40 days of application and average days are 19 days.
- Distributed Generation: 100% approved within 10 days with assumed average days the same, from date of application.

Reporting measures currently do not capture reasons for delays in review and/or approval which could occur for several reasons.

Note: Orion has no control of the time taken once the quote is sent out. It is up to the customer to decide on whether to accept or discuss the quote with Orion during the customer's decision-making process.

1. **Average time taken to make a new ICP**

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"Make a new ICP" is defined as the administrative process in place following the request by a customer to connect and liven an approved connection application.

Orion, and other EDBs are required to comply with the requirements of the Electricity Industry Participation Code 2010, and EDBs are audited periodically through their Distributor Compliance Audits. The Code allows for 3 days to make a new ICP.

ICPs are created on the registry and approvals sent to the retailer within 3 days of acceptance of the quote. Once the retailer claims the ICP, Orion issues the request for connection and livening within 3 days after the acceptance.

Orion's new ICPs created in the past 12 months were:

ICP Market Segment and Conn Create Fin Year	
Market Segment	ICP Count
⊞ Business Customers	551
⊞ Irrigation Customers	6
⊞ Major Customers	19
⊞ Private Lighting	12
⊞ Public Lighting	4
⊞ Residential Customers	6660
Total	**7252**

2. **Average time taken to give a quote for alterations to be made to an existing ICP**

"Quote for alteration of an existing ICP" is defined as an alteration application that has been "reviewed" and "approved".

Alterations subcategory type is defined as OH to UG conversion, capacity upgrade/downgrade and/or temporary disconnection of an existing ICP.

The average processing time for these types of applications was 25 days. Orion had 3164 applications to make alterations to existing connections in the past 12-month period.

3. **Average time taken to make alterations to an existing ICP**

"Alteration to a new ICP" is defined as the administrative process in place following the request by a customer or retailer to alter the details of an existing ICP.

This process is at the request of the retailer and the expectation is that changes are made within 24 hours. Alterations to alter ICP details is email based and we do not currently have any mechanism to measure the timeframe for alterations.

Require EDBs to describe their customer connection practices, including:

4. **Orion's approach to planning and management of new or altered connections (load and injection connections)**

Orion manages new and altered connection applications through a queued system.

On application, the type of connection, location and capacity requirements are defined by the customer. This allows for sorting the different applications and allocating each application to an appropriately experienced Connections Contract Manager.

Orion's Connection Contract Manager roles are defined in line with Orion's policy where:

- the connection of single phase up to 100amps are considered a "Standard Connection".
- applications over and above a standard connection capacity is considered "Non-Standard"
- distributed generation connection applications are defined at the start of the application process. These connection types are managed by a select number of Connection managers and large-scale DG connections are managed by the "Connections Futures Lead" to ensure the relevant and appropriate conversations are undertaken and measures put in place to ensure safe connection to the Orion network.

All connection applications are effectively managed through a standard streamlined process to ensure consistency. Following application approval, it is the applicant's responsibility to engage an Orion authorised connection agent for scheduling of connection and livening.

5. **How Orion is seeking to minimise the cost of new or altered connections for consumers**

Orion defines a connection type under its Policy as either "standard" (with sub-categories of either greenfield, brownfield or alteration) or "non -standard".

"Standard" connections require set capital contribution for connection of any new ICP on the Orion network. Orion will then build the required network to support the requirements of the new connection at Orion's cost. Orion's capital expenditure to support new standard connections far outweighs the value of capital contribution received for connecting customers. Orion also covers the costs for any connection and livening requirements, provided by a select number of Orion authorised service providers.

"Non-standard" connections fall into a design build process where the customer has the opportunity to elect its contractor from a number of Orion authorised service providers. This supports the customer in being able to choose the most effective/competitively priced contractor to undertake the required work to establish the network connection point/s. Orion contributes towards establishing the connection of this work through capital expenditure upgrades (recoverable assets).

The cost of alterations to existing connections, whether it is an upgrade, replacement or conversion of the existing connection are the responsibility of the customer. Customers still have the opportunity to elect their preferred contractor from Orion's authorised service providers to ensure they receive competitive pricing.

6. **Orion's approach to planning and managing communication with consumers about new or altered connections.**

Orion has an online services portal system (https://online.oriongroup.co.nz/Default.aspx) where customers are able to sign in using their unique "enquiry for supply" number. This gives them access to apply for services and to the current status of their connection application. At this stage, visibility of applications is limited to ICP creation and allocation stages. The status also indicates the application stakeholders (i.e.; Orion, Retailer, Contractor, or Customer) requiring action to move the application to the next stage. This aims to reduce the number of enquiries and provide applicants with a level of transparency of the status of their application. At this stage,

- it is the responsibility of Orion's contract managers to communicate with customers in respect of the progress of their application. Contract managers also provide their contact details to customers should they have any questions or queries throughout the application process.
- Orion's Customer Support team are also available via the standard Orion call line to be able to provide any base level information that the customer may need throughout the process.

We are in the process of identifying further enhancements by providing additional information and updates to customers on the status of their applications via the portal.

Kane Tamou

Customer Connections Manager

Annexure B:

The Commerce Commission
Infrastructure Regulation

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Communications protocol for outage notifications

This paper has been prepared to comply with the additional requirements set out by the Commerce Commission published on 25 November 2022, by 30 June 2023 in respect of Tranche 1 Information Disclosures update 30 June 2023,

Amendment Q1 – expand ID requirements related to how much notice of planned interruptions is given to consumers, including planned interruptions that are booked but not carried out and more specifically the requirement for EDBs to describe how it provides notice and communicates planned and unplanned interruptions, including any plans for changes.

Planned outages (notified)

As an Electricity Distribution Business (EDB) Orion is required to publish information on planned outages no less than ten working days ahead of the date of the works. Release Planning schedule some work earlier, and notifications may go out as early as four weeks ahead of the date of the outage. Currently, we use the following methods for notifications:

- Orion's Release Planning team sends an email to the relevant retailers to notify them. The retailers then notify their impacted customers. This is a standard procedure in line with section EIEP5A: Planned service interruptions of the Electricity Authority's Electricity information exchange protocols (EIEPs).
- We provide an additional level of service through an opt-in system to receive txt and email outage notifications. Subscribers receive an automated txt and email ten days ahead of the scheduled work with a link to the website for more information. We also advise subscribers via txt the day before, day of and upon completion of works.
- The Outages page of our website lists all current, recent and upcoming planned outages and

includes a map of the area, the number of properties affected, the date and time of the planned interruption and any potential alternate dates. We also notify customers 24 hours beforehand, including if the work has been rescheduled. We use PowerOn Advanced Data Management System (ADMS) software which generates automated updates to our website.

- Depending on the location, our contractors will sometimes do a letterbox drop to affected properties. This measure is additional to the process outlined above.

Unplanned outages

- The Orion website is our primary channel for outage notifications. The outages page lists and maps all outages (planned and unplanned, and current and recent), see the example image taken from our outages page in the appendix on page 2. The information on the public- facing website is never more than 60 seconds out of date with the network, as it is an automated system. Users can view details of the outage, including the suspected or confirmed cause, time of incident and estimated time for power to be restored.
- Our Customer Support team handle any calls about outages and can be contacted via our 0800 number 24 hours a day, seven days a week. Customers can also email the CustomerSupport team, who respond directly.
- The Customer Support Team updates each incident on the website with pertinent information as it comes to hand. Updates often include the cause of the outage, progress on restoration and updates to timing of restoration if we experience complications and delays.
- If there is a major outage, the Customer Support Team adds an additional message to the front of our standard phone message so it's the first thing customers hear when they ring the Orion 0800 number.
- For any emergency works our procedure is to ring any affected customers directly.

Next steps

We're looking at some untapped customer interactions for notifications, as well as considering other options for how to support retailers to better inform customers. We're also exploring improving our system for unplanned notifications, and specifically we're currently exploring a notification system for unplanned outages.

We have a targeted campaign planned for late 2023 to push more people to sign up to our txt and email notification system.

Burnham, Ellesmere, Irwell, Lincoln, Lincoln University, Rolleston, Springston **551**

Vehicle contact vs Orion asset

19 May 12:18 am Power to this area has now been restored. If you are still without power, please ring us on 08003639898. We really appreciate your patience and understanding this evening while we fix this fault.

18 May 10:39 pm The work on this repair is taking longer than expected. We now hope to have power restored by midnight. Thank you for your patience this evening.

18 May 5:00 pm Repairs to our network are expected to be completed by 11pm. Thank you for your patience.

18 May 4:26 pm Power has been restored to a majority of properties, however repairs to our network must be completed before we can restore power to any remaining properties still without power. Repairs will take approximately 6 hours to complete. Once repairs are completed, power will be restored.

18 May 3:32 pm Power is being switched around the incident site at the moment, and some properties will have their power restored. We are still working in the area to repair the damage, and restore power to everyone.

18 May 2:50 pm A vehicle has struck a pole in the area, resulting in this outage. Our teams are on their way now to assess the damage and begin repairs. Further information will be provided as we find out. Thank you for your patience at this time.

Incident Reference
INCD-38172-K

Power off
Thursday, 18th May 2023 2:38 pm

Power restored
Friday 19th May 2023 12:16 am

Duration
09:37

Streets affected
Bethels Road, Chamberlains Road, Claire Road, Corbetts Road, Curries Road, East Maddisons Road, Ellesmere Junction Road, Farm Road, Goulds Road, Leeston Road, Marshalls Road, Mather Place, Memorys Lane, Mounces Road, Old Bridge Road North, Old Bridge Road South, Powells Road, Rattletrack Road, Raven Drive, Selwyn Road, Springston Rolleston Road, Swamp Road, Waterholes Road

Annexure C:

Innovation Strategy (https://www.oriongroup.co.nz/assets/Company/Innovation/Orion-Innovation-Strategy_AGLX-Final-20230626.pdf)

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Orion

Contents

The Orion Innovation Strategy was co-developed by Orion and AGLX Asia Pacific.

Executive summary

Our energy system must fundamentally transform to enable society's equitable transition to a low carbon, resilient future. Our increasing reliance on renewable electricity generation, the growth of distributed energy resources, and increasing value of demand side flexibility creates new opportunities for customer participation and community resilience.

Local electricity distribution businesses (EDBs), such as Orion, play a critical role in enabling the transition - connecting customers across our region and facilitating efficient operation of the local system for the benefit of consumers.

While the broad direction of the transition is clear, there are many challenges and opportunities to be addressed along the way. We must explore, learn and innovate together – as EDBs, as an energy sector, and as a region to co-create the energy future our community seeks.

Our innovation strategy uses the intersection of intelligence, curiosity and execution to provide the structure needed to rapidly explore and learn.

Innovation will arise from the amplification of successful exploration. We will enable this to occur by:

- Defining specific challenges that align with our Orion Group strategy
- Harnessing a diverse range of options through collaboration and stakeholder engagement
- Filtering and prioritising these options
- Activation through the Orion Innovation Playbook

Our guiding principles for enabling innovation are:

- Collaborate and co-create
- Act now
- Prioritise learning
- Keep options broad

Our Integrated Leadership Team govern Orion's Innovation activity, and monitor progress toward our specific challenges and alignment with our strategic intent, by measuring the direction, tempo and impact of our activity.

We invite our customers, communities, partners and stakeholders to join us on this innovation journey. To collaborate, explore and co-create a sustainable, equitable and resilient energy system for mid-Canterbury and beyond – powering a cleaner brighter future with our community.

Sam Elder

General Manager Energy Futures

Orion

Our context for innovation

Orion

Orion Group

We own and operate the electricity distribution infrastructure in Central Canterbury, including Ōtautahi Christchurch. Our network is both rural and urban and extends over 8,000 square kilometres from the Waimakariri River in the north to the Rakaia River in the south; from the Canterbury coast to Arthur's Pass.

Orion has a fully owned subsidiary, industry service provider Connetics, and together the two organisations make up the Orion Group.

We deliver electricity to more than 220,000 homes and businesses and are Aotearoa New Zealand's third largest Electricity Distribution Business (EDB).

Orion

Our strategic environment

Aotearoa New Zealand's electricity sector can play a major role in decarbonising the broader energy sector, improving energy affordability, and increasing energy independence.

1. Boston Consulting Group, The Future is Electric, 2022
2. World Energy Council, Trilemma Index, 2021

Aotearoa New Zealand currently has a high share of renewable electricity (82%), but only 28% of our total energy consumption comes from renewable sources. Roughly 30% of the country's gross emissions come from sources that can be decarbonised by the electricity sector. Increasing renewable electricity and electrifying transport and heat will be crucial in achieving Aotearoa New Zealand's goal of net zero carbon emissions by 2050.[1]

This shift is not without systemic challenge. The Energy Trilemma[2] refers to the challenge of maintaining a balanced energy system that is secure, equitable, and environmentally sustainable. Orion puts our customers and communities at the heart of the trilemma. Energy leaders must manage the competing demands of each of these dimensions, especially as the energy system transitions to decentralised, decarbonised, and digital systems. All this creates inherent uncertainties in the energy sector to be explored to create innovative solutions.

The history of innovation in Aotearoa New Zealand's electricity sector dates back to the early 20th century, when the country began to harness its abundant hydropower resources for electricity generation. In the 1980s, the New Zealand government began a process of market liberalisation and privatisation, which led to significant changes in the electricity sector, including the development of new generation technologies, such as wind and geothermal power, as well as the introduction of retail competition.

Today, Aotearoa New Zealand's electricity sector is characterised by a diverse range of generation sources, including hydro, geothermal, wind, solar, and gas-fired power stations, as well as a growing number of distributed energy resources such as rooftop solar and battery storage. The sector continues to innovate in areas such as smart grid technologies, demand response, and electric vehicle integration.

Orion owns and operates the network that provides the people of Central Canterbury with the power they need to go about their daily lives and run their businesses. Our Orion Group Strategy focus areas outline our priorities, giving direction to how we will act in this strategic environment.

Orion Group Strategy focus areas

The Orion Group Strategy focus areas outline our priorities, giving direction to how we will act in this strategic environment.

Powering a cleaner and brighter future with our community

Facilitating decarbonisation and hosting capacity at lowest cost

- Maximise the use of the existing network with smart technologies and better data:
  - to get the most granular and accurate view of our networks
  - to maximise their utilisation
  - To invest in the right capacity at the right time
- Maximise the scope for customer participation through 'flexibility' and other market-based solutions
- Ensure our networks enable/do not block the path to decarbonisation

Investing to maintain a safe, reliable, resilient network at lowest total lifecycle cost

- Be a responsible steward of the network and invest for the long-term
- Drive cost effectiveness/efficiency and continuous improvement/innovation in everything that we do
- Leverage the power of integrated systems and data analytics and processes (based on the condition and attributes of Orion's population of network assets) to:
  - Build optimised asset maintenance and investment plans
  - Provide a single, consistent view of asset health and risk
  - Reduce costs, improve network performance, and better manage risk

Being a force for good in the communities we serve, enabling the net zero transition

- Reduce the environmental impact of our operations
- Collaborate with our local authorities and stakeholders on regional decarbonisation plans
- Play a proactive role, working with other trusted organisations, to support our customers to close the "knowledge gap" on how they can move to a more energy efficient and greener way of living
- Foster and promote energy efficiency

Creating the preferred workplace

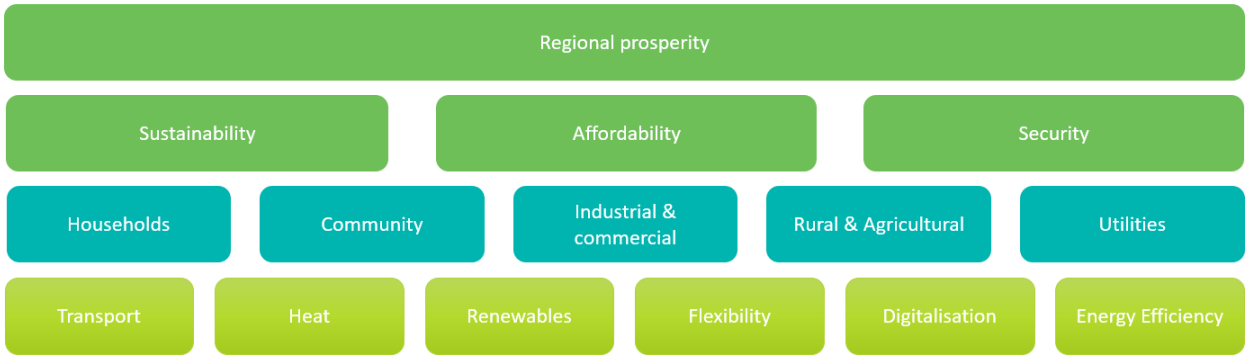
- Attracting, developing, and retaining a skilled and motivated team that feels included and reflects the diverse communities that we serve
- Actively looking for opportunities to better use our people's skill and expertise and minimise their involvement in inefficient workflows

Fit for purpose capital structure

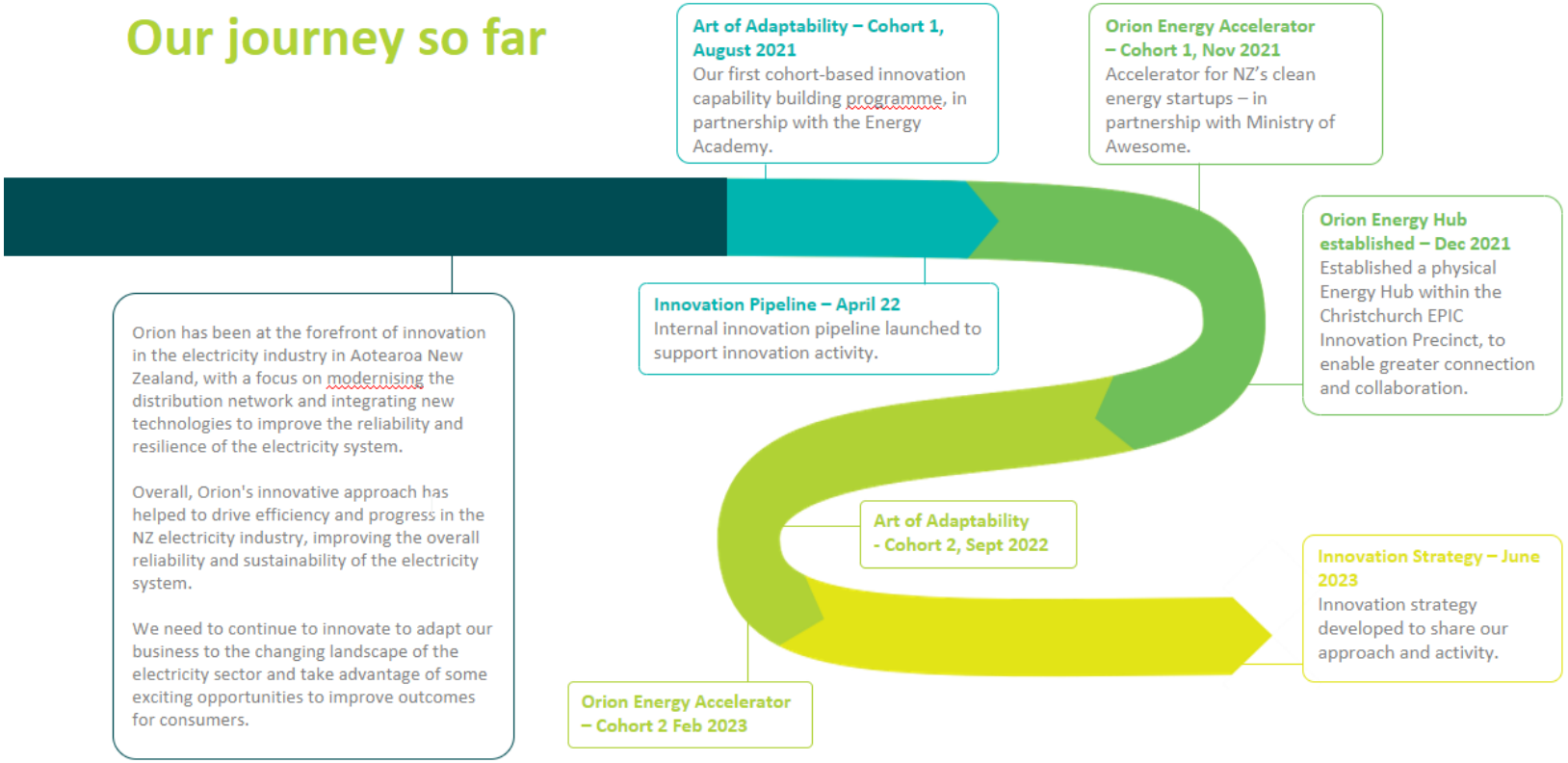
- An appropriate capital structure is intended to enable Orion to manage financial sustainability over the long-term and enable investment to fulfil our Purpose. It should provide appropriate flexibility to manage the business and adjust in response to unexpected shocks while also delivering an appropriate level of certainty to our key stakeholders

Our sense-making framework for the energy transition

Orion currently enables coherence across our innovation activities though a sense-making framework. This captures how activities contribute to key transition themes, customer and consumer segments and outcomes and enables development of a balanced innovation portfolio. It helps us maintain oversight of our diverse set of stakeholders and their needs as the energy transition evolves. It provides a prompt for exploration in under-served and strategically important areas.



Our journey so far



Orion has been at the forefront of innovation in the electricity industry in Aotearoa New Zealand, with a focus on modernising the distribution network and integrating new technologies to improve the reliability and resilience of the electricity system.

Overall, Orion's innovative approach has helped to drive efficiency and progress in the NZ electricity industry, improving the overall reliability and sustainability of the electricity system.

We need to continue to innovate to adapt our business to the changing landscape of the electricity sector and take advantage of some exciting opportunities to improve outcomes for consumers.

What our stakeholders are saying

"We have a good relationship with Orion and see Orion as much more open than other EDBs. We consider them innovative thinkers."

Tim Calder, Meridian Energy

In developing our Innovation Strategy, we have sought perspectives from a sample of our external stakeholders on working with Orion and what they want to see in the future:

- They see Orion as an innovative and collaborative company, **leading the way** for other Electricity Distribution Businesses.
- They appreciate Orion's openness to new ideas and willingness to trial them and **want a closer relationship** to understand Orion's strategy and constraints, particularly regulatory, to collaborate better.
- Stakeholders want to **collaborate to benefit the industry** and achieve mutually beneficial outcomes, such as influencing regulatory change and sharing funding opportunities.
- Larger customers going through energy transitions can be unfamiliar with aspects of electricity distribution and may demand more support from Orion to implement innovative solutions at scale and pace. Orion needs to understand their needs.
- Orion can enable innovation in the industry by providing access to data, using the network for trials, and funding innovation projects.
- While information flow is needed at strategic and functional levels, there is a strong desire to work on innovation projects together with Orion.
- Orion has a part to play in demonstrating what a good network looks like from a community point of view and contributing expertise in community conversations.
- Stakeholders want a clear pathway to engage on innovation.

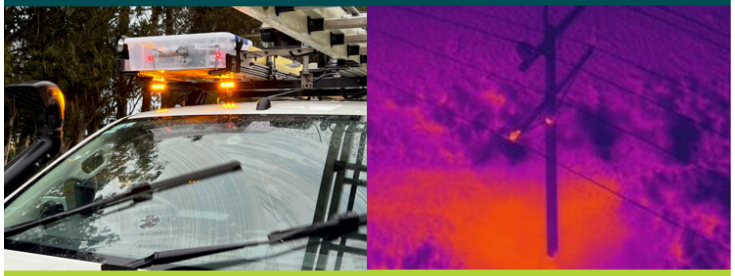
Orion

Examples of innovation activity at Orion

We have continued to innovate (see examples below and in Appendix A) in line with our purpose to power a cleaner and brighter future with our community.

Case study: Advance drone technology

Utilities | Security | Digitalisation



“I’ve been that guy looking for the faults in the dark; once I started seeing what they could do, the more I wanted to explore what else we could use them for!”

Peter Allen, Network Access Manager

The situation

In any power outage, time is of the essence. Traditionally, when we had a fault or outage, field operators would need to locate it, sometimes in hazardous conditions or terrain. It could be a long-winded, risky and time-consuming task.

What we explored

We have been exploring how advanced technology and drones can help our network operators locate and diagnose faults faster. The drones are capable of thermal imaging, provide geospatial data and can live stream footage direct to office staff.

Rather than a ‘Eureka’ moment, discovering novel applications for drones and the advance imaging technology has been the result of experimentation and staff ingenuity. A prime example was when a resourceful network operator mounted a drone on his truck in a waterproof plastic container to protect the thermal camera from the elements. This innovative solution enabled the rapid detection of faults, which are typically difficult to locate with the naked eye. Instead of spending up to 15 hours searching, faults can now be identified within just 30 minutes, using the thermal imaging camera from the comfort of a vehicle.

We're now using drones to detect line-faults on the network and were the first Electricity Distribution Business in Aotearoa to weave this process into our day-to-day operations. We plan to continue exploring new capabilities and use cases, including enabling autonomous drone operations to detect faults and remote visual inspection at substations.

Outcomes

Our innovative application of these technologies reduces the time our customers spend without power. The ability to fly above properties instead of traversing through fields and disturbing livestock is appreciated by landowners.

Real-time access to drone footage during emergencies provides better insight on the situation, facilitating prompt decision-making and a more effective response. This has dramatically improved our operational processes and is keeping our people safer by reducing the need to travel into often remote and hazardous areas for manual inspections.

Orion has actively collaborated with other energy networks, such as Powerco, to share their drone technology insights and assist in scaling the learning and benefits across the industry.

Case study: Electrical Engineers Association (EEA) FlexTalk

Households | Industrial & commercial | Transport | Flexibility

Partnering with the EEA and industry to explore how to integrate electric vehicles into a smart and flexible electricity system through a common communications protocol.

The situation

To enable flexibility services, Electricity Distribution Businesses (EDBs) and Flexibility Suppliers need ways to exchange relevant information with each other and smart devices such as EV chargers. With 29 EDBs across Aotearoa New Zealand, common interfaces are needed to support a 'plug and play' environment, maximise participation and ultimately deliver a great customer experience.

The EEA established FlexTalk to demonstrate a flexibility service for electric vehicles (EVs) using OpenADR as an example of a common communication protocol. The project is co-funded by industry and the Energy Efficiency and Conservation Authority (EECA).

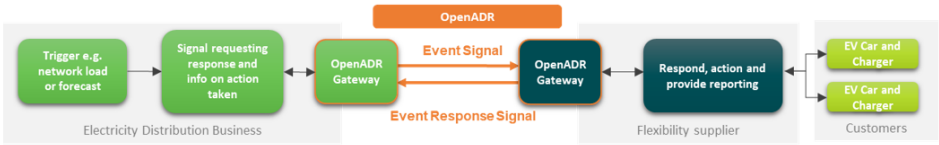
What we explored

Orion has participated in the Industry Design Team from the early stage and was selected as a delivery partner in November 2022, alongside Electra, Aurora, Evnex and OpenLoop.

The project has collaboratively designed six demand flexibility programmes for testing during the trial, including triggers for these flexibility services and information to be exchanged in the various messages. These programmes will continue to evolve throughout the trial, as part of the learning-by-doing approach of the project.

Desired Outcomes

The project has already improved our business readiness for flexibility services, including understanding the systems and features required and how these will be integrated. Following the trials, the project will develop practical guidelines that can help the electricity industry streamline participation in flexibility services and maximise the value of customer flexibility resources in a mutually beneficial way. For more, visit: www.eea.co.nz/Site/asset-management/adr-project/about-adr-project.aspx



Case study: Automatic power restoration

Security | Digitalisation | Utilities | Community

Applying new technology to automatically reconfiguring the network in outages to restore power to communities faster.

The situation

We have a lot of small towns within our region that are hubs for their communities. They're often on key routes, with visitors stopping in while passing through. Towns like Tai Tapu and Darfield are on a major tourist routes where power outages can cause huge disruption for businesses and the community.

We've been upgrading our network by replacing manual switches with tele-controlled switches. However, using these requires a Network Controller to manually assess options and create a switching schedule before restoration. We wanted to explore how we can limit the disruption of unplanned outages using emerging technology.

What we explored

To get communities back up and running quicker following a fault, we explored an Automatic Power Restoration System (APRS) that leverages the power of our remote switches with a restoration algorithm that significantly reduces outage times. An algorithm determines the faulted line section, performs power flow studies and automatically restores as much of the network as possible automatically.

We're in the later stages of testing and configuring the system. Results so far have shown that outages could be reduced from 5-10 minutes to less than 1 minute. This is uncharted territory in Aotearoa New Zealand, and we've leveraged insight from early adopters, United Energy in Melbourne and UK Power Networks in London, to accelerate implementation.

Desired outcomes

Our objective is to deploy the system with full control. This means that hypothetically if there's an outage that affects 500 people, we can restore the majority of customers within one minute and have the remainder back on as soon as the fault is repaired. This makes outage events much smaller and more manageable, improves our outage frequency and duration measures, and crucially minimises disruption to homes and businesses.

Case study: Resi-Flex

Households | Flexibility

Incentivising flexibility from residential consumers by exploring commercial mechanisms with flexibility stakeholders and considering consumer needs.

The situation

The transition towards net-zero emissions is leading to an increasing reliance on electricity. Research by Concept Consulting suggests electric vehicles and hot water will provide almost 90% of the potential for flexibility from consumer appliances. However, most consumers are unaware of the existing or future value of flexibility or how this impacts their power bill.

Recent reports by Boston Consulting Group and Electricity Authority Market Development Advisory Group have emphasised the need for tariff and technology innovation to ensure customers have access to the information they need to make informed decisions about electricity use and demand-side flexibility.

What we explored

In response to these challenges, the concept for Resi-Flex was initiated by Orion in March 2022 through its Innovation Pipeline. The project aims to incentivise flexibility from residential consumers by exploring commercial mechanisms in collaboration with flexibility stakeholders. Building on connections through the FlexForum, Orion and Wellington Electricity partnered on the project to drive progress, leverage shared resources and expertise, and develop scalable insight.

The ongoing Resi-Flex project is taking a learning-by-doing and exploratory approach. It started by discovering user requirements from various perspectives across the flexibility value chain including consumers, flexibility stakeholders, and distribution network companies. These insights have informed the development of commercial mechanisms that could incentivise greater use of flexibility resources in the future.

The next step in the project is to partner with flexibility suppliers to co-design customer offerings based on the selected commercial mechanisms and trial these with consumers.

Desired outcomes

Resi-Flex is providing insight on residential flexibility to inform the design of trials and supports steps in the FlexForum's Flexibility Plan. The trials will inform the effectiveness of different solutions and which ones to scale. Ultimately, this will create opportunities for residential consumers to provide flexibility, while supporting equitable outcomes for all consumers.

Case study: Orion Energy Accelerator - Empower Energy

Affordability | Renewables | Households | Community

Supporting innovators to develop a universal peer-to-peer donation platform empowering kiwis to end energy hardship. To find out more about Empower Energy, visit: https://empowerenergy.org.nz/

The situation

An estimated 100,000 households nationwide are experiencing energy hardship. This creates significant health, social, and economic impacts for those affected. Empower Energy entered the Orion Energy Accelerator in 2021 with an idea to address energy inequity. The concept started with people with excess solar energy being able to 'pay it forward' to those experiencing energy hardship.

What we explored

Orion supported Empower Energy through the Accelerator, including market validation where they put the concept to the test and explored how they might design a solution. Empower Energy's pitch won the Accelerator Impact Award, which allowed them to develop a Minimum Viable Product (MVP).

Since then, Orion has supported Empower Energy with people power and resourcing, including a Trustee in the charity and an advisory board member. They have since received additional funding and support from other players, including Ara Ake and MainPower. Following a successful donation pilot with Meridian, Empower Energy is now looking to expand and automate so other retailers can participate.

Desired outcomes

Orion's objective was to support Empower Energy as an innovator to develop, trial and successfully launch a collaborative platform to reduce energy hardship in Aotearoa New Zealand. Based on market validation feedback, the initiative has moved to a model where anyone can donate, not just those with excess solar generation. Empower Energy's short-term goal is to distribute donations to 15,000 households who need it during winter 2023.

Ultimately, Empower Energy want to establish a self-sustaining platform that enables energy donations to be distributed to all those in energy hardship. This will save time, effort, and resources from retailers and care agencies to ensure money and support is reaching those who need it.

Orion

Our approach to innovation is adaptive

Definition of innovation

Innovation is the **amplification** of successful **exploration.**

Orion will focus our energy on the things we can influence and control: collaboration, exploration and amplification.

Not all exploration will lead to the desired outcome so we will establish a broad portfolio of experiments. Our resources for experimentation are limited so we will look to collaborate across the industry and increase the tempo of activity.

Amplification is important. Many good ideas suffer a lack of attention and fade away. Our process for enabling innovation will include specific actions for experiments that are successful and specific actions for those that are not, allowing us to adapt without losing our direction.

Embracing an adaptive approach for innovation in the electricity industry

We will enable the process that leads to innovation. A process that harnesses our collective intelligence, curiosity and execution to explore and adapt with our Orion team, our industry and our community.

"Culture doesn't drive innovation. Process drives innovation and culture arises from it." - Dave Snowden

Change is upon our energy landscape with the emergence of climate change, distributed generation, and demand disruption. A new approach to strategy is needed as the complexity of the energy transition requires us to learn by doing, with parallel experimentation to explore and adapt.

Orion's Innovation Strategy is designed to face this real world complexity and detect changes in the strategic environment to ensure strategic resilience. The strategy prioritises exploration over analysis, allowing for successful targeted and organic innovation.

An adaptive strategy approach enables innovation, incremental improvement, and business as usual to co-exist. Innovation doesn't make you more adaptive, being adaptive provides the foundation for innovation to occur.

We are interdependent on each other in the electricity industry. We need our stakeholders to collaborate with us. Previous funding and collaboration models may have worked in a stable environment but now inhibit innovation.

We will explore new ways of working together to face the challenges of the energy transition and co-create solutions for consumers and our industry.

This means that before we plan, we need to:

Explore, Experiment and Learn.

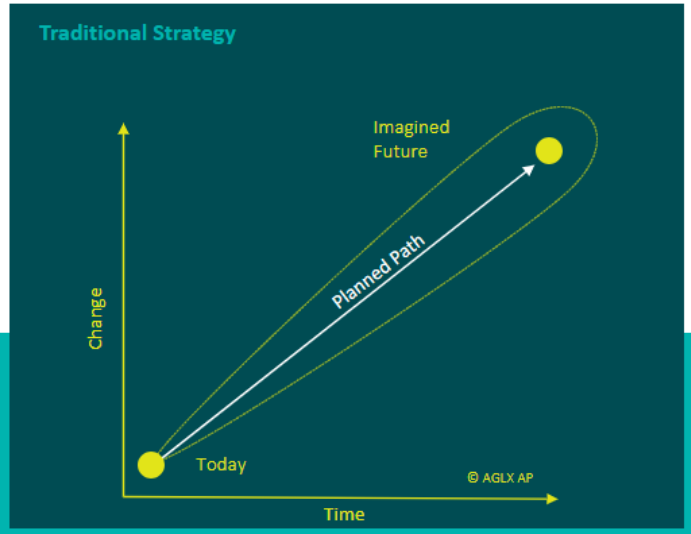
Our philosophy for this strategy can be summarised as follows:

Think Big: Our innovation strategy will target the strategic issues that we face. We will partner with stakeholders to increase the resources and diversity we bring to exploration.

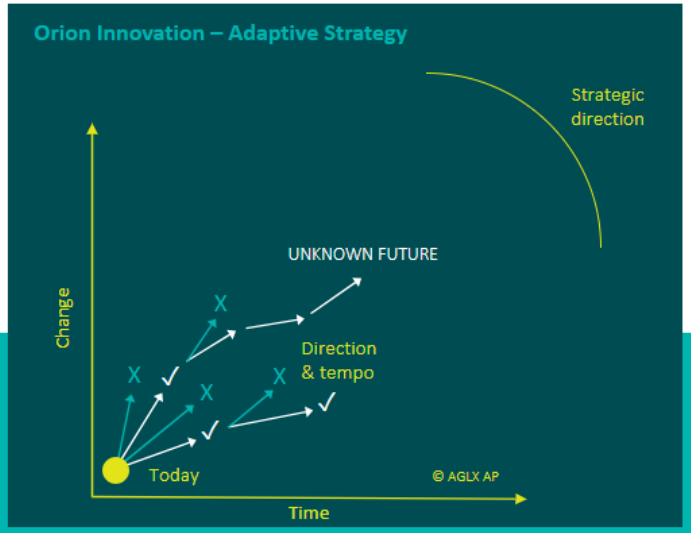
Act Small: We can't 'solve' big strategic issues, but we can establish many small actions designed to learn about what works and what doesn't. We will then focus on the amplification of the things that are working.

Move Fast: In the face of strategic change, waiting is failure. Our approach to acting fast is to ask, "what can we do right now to test this idea or take the next step forward?". This is where the Orion Innovation Playbook is most useful.

"Adaptive strategy is a dynamic movement through uncertainty, replacing the illusion of control with the excitement of exploration." - Steve McCrone (Cynefin – Weaving Sense-making into the Fabric of our World)



When the future is knowable, we can create the best imagined future and then find a path toward it. We must be certain of the strategic environment and be able to predict changes within it.
Implementing the plan is a matter of resource allocation and asset management.
Managers are concerned with ensuring we are on the right path.



Our future has a lot of factors that are unpredictable.
We establish a **strategic direction** of travel, and a set of principles that positively constrain our behaviour. Strategy then becomes a series of exploratory steps designed to explore and learn; small experiments in parallel, fast feedback and rapid amplification of success.
Leaders manage the tempo and diversity of experimentation and commit resources to amplification of successful outcomes.

Guiding principles for activating innovation

Guiding principles serve as a foundation for decision making in the context of activating the Orion Innovation Strategy. We need the following principles because innovation activities (exploration) are often characterised by a high degree of uncertainty and unpredictability, making it difficult to rely on traditional long-term plans or detailed roadmaps. Instead, a principled approach to decision making allows for more flexibility and adaptability in response to changing circumstances while remaining consistent with Orion's strategic direction.

Collaborate and co-create

We access the diversity of perspectives from our internal and external relationships to partner in exploration. We don't go it alone, we co-create value with a range of stakeholders.

Act now

We act now to maximise the evolutionary potential of our current situation to increase the probability of innovation emerging. We don't wait for certain, ideal scenarios to exist before moving forward.

Prioritise learning

We prioritise learning over solutions in the exploration. We amplify solutions as they emerge. We monitor our exploration closely for signs of success or failure to learn and adapt quickly.

Keep options broad

We keep our options as broad as possible for as long as possible to engage collective curiosity and give us greater capacity to adapt. The purpose of innovation activity is to explore widely, not choose the one right way.

Orion

Our Innovation Ecosystem

As innovation can emerge from many situations, we maintain diversity of approaches to connecting and collaborating with stakeholders and customers.

We must work with our network of stakeholders to build shared understanding, collaboratively explore solutions and create long-term benefit for consumers.

Orion

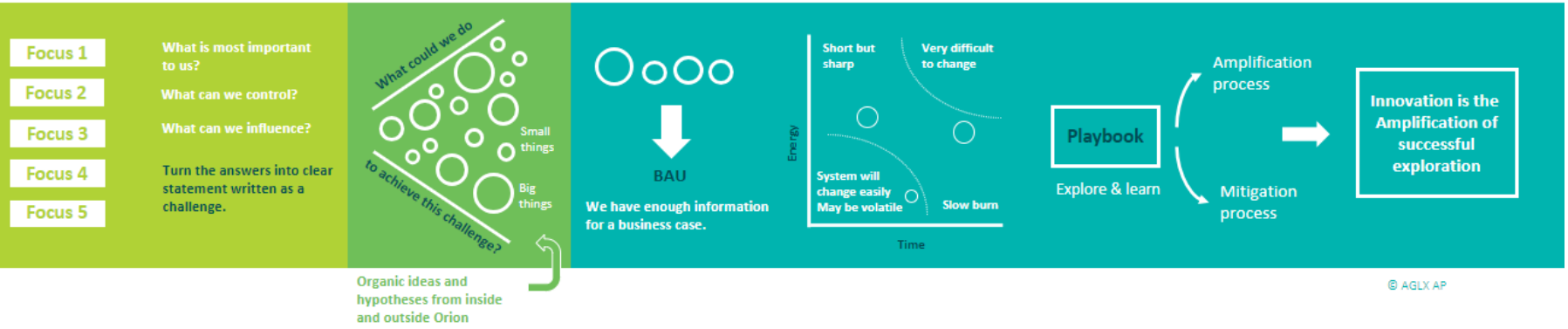
Orion

Our innovation process

Orion

Our process for activating innovation

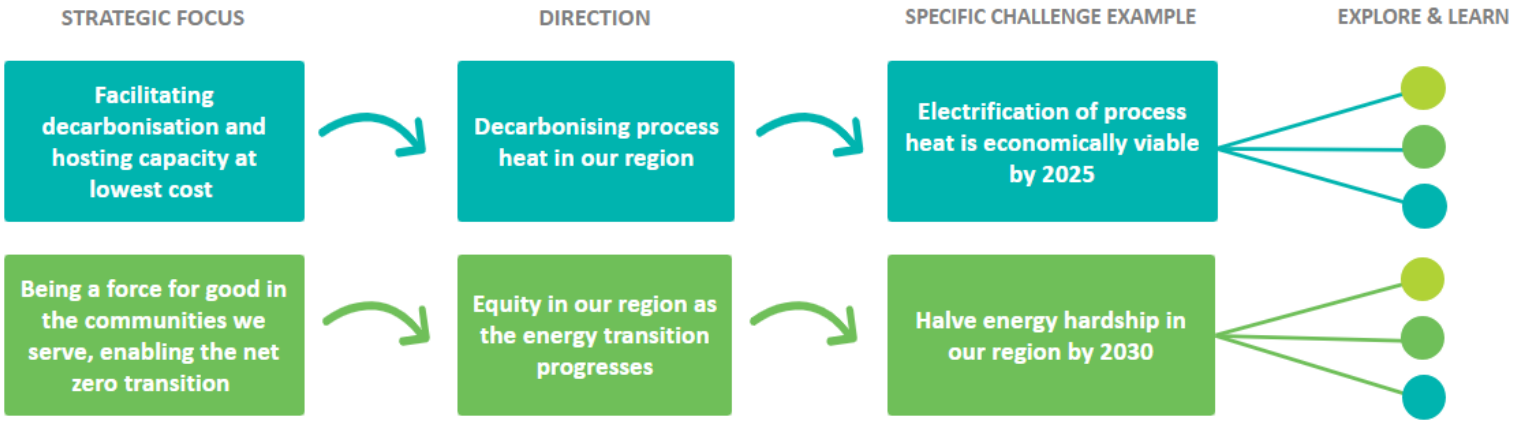
Intelligence		Curiosity	Execution			
STRATEGY	**DIRECTION**	**OPTIONS**	**FILTER**	**PRIORITISATION**	**ACTION**	**AMPLIFICATION/MITIGATION**
Strategic focus From the Orion Group strategy we get our five focus areas.	**Specific Challenges** Ask clarifying questions and establish the domain of our control. Specific challenges give us a clear sense of direction and urgency but don't constrain options. This enables targeted innovation.	**Increase the diversity of ideas** Engage curiosity and harness disagreement (creative friction). Engage widely and find multiple perspectives.	**Context filter** Which things have existing validated solutions and could fit within our operational budget, expertise or capacity. Wherever we see uncertainty we need to explore and learn. Filter out options that can be executed via existing process and capability.	**Determine time & energy** We can't do it all. It is too early to prioritise via ROI or balanced scorecard. These require knowledge of the future. Our method is to look at the energy and time needed to implement the idea and look for the things that are lower energy and available now. These are the next steps.	**What will we do?** The Orion Innovation Playbook is used to action our ideas. The sum of the playbook activity is a broad set of actions that are designed to explore uncertainty and are coherent with our chosen direction.	**Innovation & learning** Not everything will succeed. If it does then we are not pushing the boundaries of our knowledge. Experiments that fail to achieve their aim will provide useful information. Experiments that succeed can be amplified and scaled. This is innovation.



Orion

Moving from Orion's Group Strategy to targeted exploration

The examples below illustrate how we create the flow from our Group Strategy focus areas to targeted exploration. We reduce granularity on our focus areas by identifying where uncertainty lies and what we can control and influence. We create a specific challenge statement to give direction to our exploration and as a call to action for collaborators. As a diverse group we decide on a portfolio of experiments to explore and learn.



Where is there uncertainty?
What is important to us?
Where could we get the most impact?
What can we control or influence?

What is a quantifiable and time-bound ambition that will stimulate action?

What are the barriers or enablers?
What are the different ways we could influence this?
What assumptions have we made that we can test?
Who can we collaborate with?
What can we explore today?

Orion

Orion

Innovating together

A cleaner brighter future for our communities will only be achieved though deep, authentic collaboration. We collaborate across the sector, with adjacent sectors and within our local community.

ena electricity networks aotearoa

ENA represent all 27 lines companies which operate the poles and wires delivering electricity to every region across Aotearoa.

Through working groups and forums, Orion supports ENA's collective efforts to helping deliver a low-carbon future for New Zealander's, based on reliable, safe and affordable electricity networks.

Find out more at: https://www.ena.org.nz/about/

FLEXFORUM

The FlexForum is a cross industry group formed to identify a set of actions to integrate distributed energy resources (DER) into the electricity system and markets to maximise the benefits for Aotearoa New Zealand.

As a member of the FlexForum, Orion are supporting coordination and collaborative action to enable a smart and flexible enery system.

Follow their progress at www.linkedin.com/company/flexforum/

Energy Hub
Powered by Orion

Energy Hub located in EPIC, Christchurch's Innovation Precinct, is a regional space for those working on energy transition to gather, connect, share, learn, and innovate together.
Orion Energy Accelerator: supporting high impact energy innovations.
Energy Academy: Transforming the way the industry develops capability.
Energy Futures Lab: collaboratively experimenting on energy's Just Transition.

To contact us about innovation, visit www.oriongroup.co.nz/corporate/innovation/

Orion

Governance for innovation activity

Governing the flow of innovation

Orion's Integrated Leadership Team govern the flow of innovation by:

1. **Setting the direction**
2. **Managing the tempo**
3. **Allocating resources**
4. **Amplifying success**

Our innovation governance process focuses on the following:

- Strategic direction of the innovation programme and alignment to the business vision and strategy.
- The principles and process as outlined in the strategy are being followed before funds are allocated for experimentation. Ensure visible and transparent points of accountability exist at all different levels of the innovation programme.
- Innovation is occurring across the organisation and is not confined to any particular function.
- Any high-level constraints to enabling innovation are identified and managed. All risks being actively managed and all issues encountered being reviewed and addressed appropriately.
- Innovation success is being communicated with maximum effect both internally and externally.
- We should not seek to improve, change or determine the likelihood of success of any innovation activity, unless they are directly involved in its activation.

Obstacles to exploration

We enable innovation best by taking a learning-centred approach to exploration and remove obstacles to innovation such as funding and reporting that require pre-determined outcomes. Orion and industry collaborators need to strive for learning rather than 'success' in exploration. There are some common risks and pitfalls which we must avoid or remove to enable exploration:

Picking winners

Our Innovation Strategy provides the structure that allows a broad range of experiments to occur, amplifying successes and mitigating failure. By diversifying efforts across multiple experiments, the risk of one particular project failing is minimised, while the cumulative knowledge gained from the entire portfolio drives meaningful progress.

The Good Idea Fairy

The Good Idea Fairy is when senior managers provide too much advice on experiment design and execution or demand regular updates. This will inevitably diminish the motivation of the team and decrease their curiosity.

Problem solving

If we cast strategic challenges as problems to be solved, we will quickly shift back to our comfort zone of Intelligence and Execution. Challenges should stimulate exploration not solutions development.

Waiting

In times of uncertainty and change, waiting is failure. Our innovation process is designed to rapidly stimulate multiple parallel experiments. Waiting for the right time to start or until other things are finished will lead to systemic inertia.

Focus on Return on Investment

Over emphasis on the Return on Investment (ROI) or immediate outcomes of an individual experiment stifles innovation. Funding for early-stage exploration is vital, even when the specific payoff is uncertain, as the insights gained informs further innovation. This contributes to the collective impact and value generated across a diverse portfolio of experiments.

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Monitoring our progress

We will monitor the success of innovation by tracking the Direction, Tempo and Impact. We are more interested in what the measure is telling us about our progress than setting specific targets.

"When a measure becomes a target, it ceases to be a good measure"
– Simplification of Goodhart's Law.

DIRECTION
Are we moving toward our strategic direction?

TEMPO
Are we progressing at the right pace to address challenges?

IMPACT
Are we realising the desired outcomes?

COLLABORATION
How well are we working with others?

TIME & ENERGY
Are we allocating the right resources and leveraging available funding?

AMPLIFICATION
Are we amplifying learning, including from others?

We will monitor our measures and if we find more useful measures we will adapt to use new ones.

Appendices

Appendix A: Orion's Innovation Activity

Strategic Focus Area	Activity Name	Description	Status	Collaborators	Themes
Facilitating decarbonisation and hosting capacity at lowest cost	**Orion EV charging management**	We have piloted electric vehicle charging management on 13 carparks at our main office to understand how staff and fleet vehicles can respond to control period demand signals. This reduces our load during Control Periods when fossil fuel generation is at its peak so reduces our carbon impactThe pilot enhanced our future-fitness as a business by learning to manage EV charging in a way that can be shared with other businesses. Success of the pilot led to it being rolled out for the 10 charging parks at Connetics main contracting depot.	Complete		Affordability, Sustainability, Security, Industrial & Commercial, Utility, Transport, Flexibility
	EDB Challenge - Gridsight	Pilot implementation of the Gridsight platform to identify network constraints, electric vehicle locations and broken neutrals as well as validation of our network topology in the Milton Zone Substation supply area. This project will support our LV network understanding workstream by centralising our LV data sources to generate insights, such as the use cases covered above, in the Milton area. This can be scaled to network level once a full ongoing smart meter data is available.	Live	Gridsight	Utility, Transport, Renewables
	EDB Challenge – ANSA Holdings	Pilot project to increase common understanding and approach to electric vehicle and solar PV hosting capacity amongst distribution businesses through the development of a dynamic dashboard for displaying ANSA hosting capacity results based on user inputs. This project will increase the useability of hosting capacity results to support Network Development and Customer Connections workflows for network optimisation or upgrade. Paired with network hosting capacity studies, it will also contribute towards making LV hosting capacity publicly available to customers.	Live	ANSA (Advanced Network Simulation and Analysis)	Utility, Transport, Flexibility
	Lincoln Flexibility Trial	Trialing the use of flexibility services in Lincoln to delay network build in this area, saving our customers money, at no sacrifice to the security of power supply to the area. Orion's objective is to provide energy security at a lower cost than new network infrastructure and implement a solution that will also support the transition to a lower carbon energy supply.	Live		
	Future of hot water flexibility	Analysing local hot water load management trends and collaborating with retailers to explore the impact of their hot water trials with household consumers and how to address these to maintain security, while maximise whole-of-system value to consumers.	Live	Octopus, Electric Kiwi	Security, Households, Heat
	Thermal storage	Supporting a desktop study to assess the business case for a customer exploring installing a thermal storage system to smooth out energy demand peaks during production. Opportunity for Orion to explore how to support low-cost decarbonisation for industrial customers by encouraging flexibility through commercial mechanisms.	Live		Industrial & Commercial, Flexibility, Affordability, Sustainability.
	EEA FlexTalk	Collaborative industry project led by EEA and co-funded by EECA, which seeks to demonstrate a common communication protocol for managing EV charging via flexibility providers. The project will establish best practice guidance to support the integration of smart EV chargers into a flexible energy system and inform any necessary regulation.	Live	EEA, EECA, Aurora, Electra, Openloop, Evnex, Cortexo, Transpower and other industry members.	Sustainability, Security, Households, Industrial & Commercial, Transport, Flexibility
	Resi-Flex	Exploring how to encourage flexibility from residential households through commercial mechanisms with flexibility suppliers. This will directly benefit customers who provide flexibility through incentives by enabling the value stack and indirectly benefit all network customers by enabling decarbonisation at lowest cost.	Live	Wellington Electricity	Households, Flexibility
Creating the preferred workplace	**Art of Adaptability – Cohort 2**	The Art of Adaptability is a 21st Century learning experience that build capability and experience exploring innovative ideas. Cohort 2 was run collaboratively with Orion, Connetics and the Energy Academy with 10 participants across three teams, who worked collaboratively to unpack an idea and gets it to a point where it's ready to pitch. As well as providing insight through the exploration of their ideas, the experience armed participants with tools and methods to support innovation across Orion Group.	Complete	Energy Academy, Connetics	Utilities

Appendix A: Orion's Innovation Activity

Strategic Focus Area	Activity Name	Description	Status	Collaborators	Themes
Investing to maintain a safe, reliable, resilient network at lowest total lifecycle cost	**Digital Substation**	Orion has designed and commissioned a digital substation using IEC-61850 communications to reduce copper wiring, provide multi-vendor interoperability, and provide additional protection and control features. This has minimised copper wiring and cabling, reduced labour costs, provided a low latency high-availability protection system, and mitigated supply chain risk.	Complete		Security, Affordability, Utility, Digitalisation
	Auto-Recloser	Developed a new automated process for auto-reclosers configuration to manage rural lines in adverse weather conditions based on meteorological and fire risk data.	Complete		Security, Utilities, Digitalisation
	Bespoke Pole Inspection Process	Developed a more accurate asset management method of assessing the condition of Orion's overhead line network of poles and conductors.	Complete		Utilities
	LV Monitoring System	Developed a new LV monitoring system using data captured from new monitoring components on the LV network and from Orion's network control system (PowerOn) to provide systematic and real-time geographic representation of the LV network performance.	Complete		Security, Utilities, Digitalisation
	LV Statcoms on Mobile Generators	Investigate the use of static synchronous compensators (Statcoms) as a method to increase network resiliency and reduce generator use (by reducing unnecessary use of diesel) without effecting reliability or performance of the network.	Complete		Security, sustainability, Utilities, Energy Efficiency
	11 kV Statcoms controller	Developed our own control system for 11 kV Statcoms (used to improve power quality) and a bespoke algorithm to automate the control of generator and Statcom use in response to variable network power quality conditions such as load and voltage.	Complete		Security, Utilities, Digitalisation
	Ripple Signal Generator	We developed and prototyped an electronic device to replace a device previously supplied by a manufacturer who no longer manufactures said device. This directly mitigated a known supply chain risk, allowing us to continue to use our ripple system to provide a secure and affordable service consumers.	Complete		Affordability, Security, Utility
	Advance drone technology	We have explored how advanced technology and drones can expedite the detection and diagnosis of faults during power outages. By using thermal imaging and live streaming capabilities, faults can now be identified significantly faster, reducing outage durations, and improving operational safety. We have collaborated with other distribution networks to share and scale the benefits of this technology across the industry.	Complete		Security, Utility, Digitalisation
	Technology Driven Asset Location Capture	Development and implementation of a digital field capture standard that conforms to the Surveyor General's Underground Utility Standard - leveraging technology, so far saving 8 x in time, increases in accuracy, timeliness and improved operational safety. Real-time kinematic positioning technology providing sub 10cm accuracy in Greenfields application.	Live		Security, affordability, Utility, Digitalisation
	Mobile Switching iPad app (Peek) for electronic Permits and other enhancements	Enhancements to our mobile app for gathering field incident data and improving the safety and efficiency of field switching work. This is innovative as we are contributing to the design and specification of new and enhanced features in this product that are possibly world leading. Design and specification with OEM (Synerty) to bring electronic permits and other enhancements into the mobile switching app.	Live	Synerty	Digitalisation
	Automatic power restoration	Implemented an automated switching algorithm on around 170 feeders across the network. When an 11 kV network fault occurs, the system looks at indications from line fault indicators in the field, does some power flow calculations and then automatically reconfigures the network to restore power to as many customers as possible.	Live		Regional Prosperity, Security, Community, Utilities

Appendix A: Orion's Innovation Activity

Strategic Focus Area	Activity Name	Description	Status	Collaborators	Themes
Being a force for good in the communities we serve, enabling the net zero transition	**Orion Energy Accelerator**	The Orion Energy Accelerator is New Zealand's first energy-focused accelerator, delivered in partnership with Ara Ake and the Ministry of Awesome. During the accelerator, startups participated in a three-month programme, receiving hands-on guidance from Orion and other experts in energy, technology and start-ups. In 2023, we complete our second cohort of the programme. Find out more at: https://www.orionaccelerator.co.nz/	Complete	Ministry of Awesome, Ara Ake	All
	Mobile Generation using Biofuel	Investigated how to run our mobile generator fleet on 100% biofuel by developing technology that would enable diesel generators to be more efficient and assessing the ability of alternative fuels to reduce our carbon footprint.	Complete		Sustainability, Utility,
	Fleet Decarbonisation Tool	Orion developed an in-house fleet decarbonisation tool in an excel spreadsheet to enables fleet owners and operators to estimate annualised life cycle CO2 emissions mapped against capital investment overtime to inform vehicle fleet transition and charging requirements. We have started sharing openly to support regional transition and other EDBs.	Complete		Transport, Digitalisation
	Orion Energy Accelerator - Empower Energy	Empower Energy is a Canterbury-based energy start-up who will build an innovative, nationwide electricity redistribution scheme that empowers solar panel owners to share their surplus power with people experiencing energy hardship. They won the 2021 Orion Energy Accelerator and are seeking further investment to develop their offering. Since then, Orion has supported Empower Energy to develop Minimum Viable Product and with a Trustee in the charity and an advisory board member.	Live	Empower Energy, Ara Ake, Ministry of Awesome	Affordability, Households, Renewables
	Customer Connections Journey	We ran several workshops with major customers and their consultants to understand their decarbonisation journeys and opportunities for Orion to develop new processes and tools to support proactive engagement, increase investment certainty and enable decarbonisation. This led to the development of a Connection Futures team to provide pre-application consultative support for complex commercial and industrial customers. In addition, we have launched Orion's Energy Advisory services, to develop a joint approach to help customers to realise decarbonisation ambitions in collaboration with their own consultants. The desired outcome of these services is to obtain independent advice and support our teams to efficiently explore options for large scale capacity requests and non-wire alternatives.	Live	Various including engagement with EECA, DETA and CIAL.	Regional Prosperity, Utilities, Industrial & Commercial, Transport, Heat
	Local indigenous forest offsetting service	Explore how Orion can support linking local landowners with local businesses to enable carbon offsetting with indigenous forests. This opportunity empowers both landowners and organisations to enter a genuine partnership to manage and operate in a sustainable and climate responsible manner. Orion would also services would include: help with decision making, monitoring, internal reporting, and celebrating success. This is enabling us to deliver our electricity lines service to consumers with lower net emissions and address any future bio-diversity or nature related risks that may emerge.	Live		Sustainability, Community, Utilities
	Offset carbon credits	Exploring ways to offset our carbon emissions related in a manner that will lower costs to customers.	Live		Sustainability, Utilities
	Living Lab	Orion is developing a Home Energy Living Lab to better understand the implications of changing household energy profiles and knowledge needs of our residential customers, and trial products or services that support the low-carbon energy transition. As we gather insights and learnings, we are exploring expanding the project in collaboration with partners.	Live		Households
	Otautahi Community Housing Trust project	Orion are working with Otautahi Community Housing Trust on a project to understand energy consumption and environmental factors to explore how this could help OCHT improve their decision making on building portfolios. It provides tenants involved the opportunity to improve their energy efficiency while maintaining a healthy home.	Live	Otautahi Community Housing Trust	Households
	EcoBulb - Christchurch Home Energy Saver Pilot	Supporting energy saving measures and advice in households in low-income suburbs with network constraints and analysing impact on load on monitored feeders	Live	EcoBulb/CCC/ SEEC	Households

Orion

Appendix B: ICE Innovation

ICE Innovation® Framework

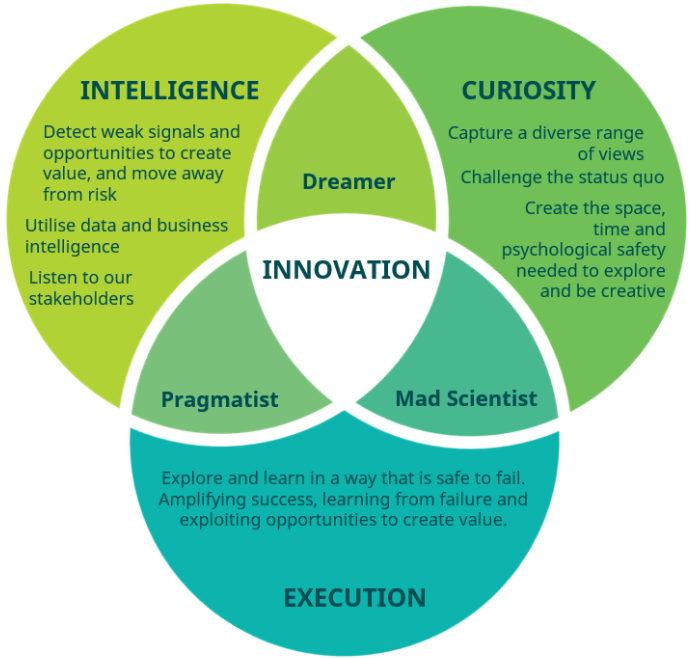
ICE Innovation® is designed to harness our business **intelligence**, natural **curiosity** and our ability to **execute**. When combined these forces create the conditions for innovation to occur.

Intelligence and Curiosity without Execution means we risk getting lost in our imagination. The Dreamer can imagine a better future but lacks the ability or desire to participate in its creation. Frustration can arise if people have innovative ideas but cannot execute on them.

Intelligence and Execution without Curiosity means we rush into problem solving without thinking about the bigger picture. Pragmatism is a good mode of operation when the outcomes are known, and our successful execution relies on efficient and expeditious actions. Many of the day-to-day tasks and asset management projects are focused on pragmatism. The Pragmatist may stifle our ability to explore novel ideas and find innovative solutions.

Curiosity and Execution without Intelligence leads to activity that has little grounding in the needs of today. While we may eventually hit on an innovative idea, The Mad Scientist expends lots of energy and resources creating things of marginal value. We want to avoid this path to innovation as it has many dead ends.

ICE Innovation® is a process of finding a balance of these forces so teams can think and act differently to create the conditions for innovation across Orion and our stakeholders. ICE is about where our energy comes from, not the attributes of individual contributors.



Appendix C: Innovation Practices

Commerce Commission Information Disclosure Requirements

In November 2022, the Commerce Commission introduced information disclosure requirements for EDBs to describe their innovation practices. The objective of these requirements are to ensure stakeholders have better understanding of how EDBs are adapting to the changing environment and technical settings in which they operate, which is especially important given the impact decarbonisation will have on EDBs.

We define innovation as the amplification of successful exploration. Reflecting this, we have shared a broad set of practices, including activity related to the supply of electricity lines services and Orion's strategic purpose in support of and with our customers and communities.

17.6	a description of the following:	Covered in section page
17.6.1	any innovation practices the EDB has planned or undertaken since the last AMP or AMP update was publicly disclosed, including case studies and trials;	11-16, 33-35
17.6.2	the EDB's desired outcomes of any innovation practices, and how they may improve outcomes for consumers;	11-16, 33-35
17.6.3	how the EDB measures success and makes decisions regarding any innovation practices, including how the EDB decides whether to commence, commercially adopt, or discontinue these practices;	17-31
17.6.4	how the EDB's decision-making and innovation practices depend on the work of other companies, including other EDBs and providers of non-network solutions; and	23, 27
17.6.5	the types of information the EDB uses to inform or enable any innovation practices, and the EDB's approach to seeking that information.	21-22, 25, 27