Orion

Innovation and Non-Traditional Solutions Allowance (INTSA) Application
Issued: November 2025

Commercial and Industrial Demand Flexibility Project

Contents

Tables and Figures Index

Figure Index

Table Index

Introduction

This is **Orion's Innovation and Non-Traditional Solutions Allowance (INTSA) application for Phase 2 of the Commercial and Industrial (C&I) Demand Flexibility Project.** It demonstrates how the project meets INTSA eligibility criteria and provides additional information for the Commerce Commission's assessment.

The New Zealand electricity system is transforming due to decarbonisation and increased integration of distributed energy resources (DER). Maximising customer participation in demand flexibility is vital for managing network load, deferring infrastructure investments, and optimising system efficiency.

The C&I Demand Flexibility project forms a part of Orion's strategic focus area to facilitate decarbonisation and hosting capacity at the lowest cost and is a component of Orion's Flexibility and Markets Development (FMD) Programme. Its overall objective is to progressively scale new ways of enabling C&I flexibility on Orion's network addressing the potential for higher levels of engagement with Orion's existing Control Period Demand (CPD) pricing signal, which currently sees a relatively small proportion of eligible Major Customers[1] (defined in Orion Pricing Methodology 2025 Table 3, pg 30) reliably responding, despite significant potential customer savings.

The project is structured into distinct phases with two stages in Phase 2:

- **Phase 1:** Discover & Define (complete)
- **Phase 2:** Enabling CPD Flexibility (current phase).
    - Stage 1 – CPD Capability Enablement
    - Stage 2 – CPD Operational Enhancement

Phase 1, conducted from January to May 2025, focused on understanding wider C&I customer perspectives on energy flexibility, identifying barriers such as a lack of understanding, perceived insufficient financial incentives and operational challenges, and recognising enablers like financial savings and enhanced green credentials. These foundational insights have directly informed and shaped the strategic focus of the current phase 2.

Phase 2, running from July 2025 to April 2026, has two consecutive stages. Stage 1, 'CPD Capability Enablement,' aims to build readiness for greater CPD response by supporting flexibility assessments and engaging electricity retailers. This involves further collaboration and alignment with other flexibility stakeholders, opening a fund for Major Customer flexibility assessments, and exploring flexibility value-stacking. Stage 2, 'CPD Operational Enhancement,' will develop an MVP prototype for improved operation of CPD – for example, a CPD dashboard with historical trends, forecasting, and advance notification.

Phase 2 core objectives are to enhance C&I flexibility by exploring value stacking, building operational readiness and trust among stakeholders and understanding how to enhance CPD accessibility. Next steps involve the execution of Phase 2, with key milestones and activities outlined in this application. This includes ongoing engagement with retailers, funding flexibility assessments, and the development and testing of CPD signal enhancements.

The project will leverage INTSA funding to support these critical workstreams. This INTSA application specifically seeks funding to support **Phase 2 of the Commercial and Industrial Demand Flexibility project for 100% of Orion's share of forecast costs** during FY26 and FY27 ($269,000).

Furthermore, Orion is committed to collaborating with other EDBs via a reference group and sharing insights at industry events to ensure the project's broader applicability and scalability in New Zealand. This project is vital for unlocking new C&I flexibility, enhancing network efficiency and customer value, and supporting New Zealand's energy transition.

We are happy to discuss any aspects of this application with the Commission. The first point of contact for this application is Simon Rycroft, Flexibility Development Lead, [redacted]. No parts of this application are confidential, and we will publish this application in full.

[1] https://www.oriongroup.co.nz/assets/Our-story/Pricing/Orion-pricing-methodology-2025.pdf

1. Eligibility criteria

Table 1 outlines how the Commercial and Industrial Demand Flexibility (C&I Flex) Project meets the eligibility criteria for INTSA.

#	INTSA Eligibility Criteria	Alignment	How the C&I Flex project addresses each criterion
1	Relates to the supply of electricity distribution services	Aligns	The C&I Flex project relates to the supply of electricity distribution services. Success in this project will help manage load on Orion's network by shifting the demand profile for electricity conveyed by the existing infrastructure within the network.
2	Promotes the Part 4 Purpose of the Commerce Act	Aligns	The C&I-Flex project effectively addresses a, b and c limbs of Section 52A (1) of the Commerce Act, Part 4: …promoting outcomes that are consistent with outcomes produced in competitive markets such that suppliers of regulated goods or services— **a. have incentives to innovate and to invest, including in replacement, upgraded, and new assets**: The project fosters innovation and investment by helping provide an environment where Distributed Energy Resource (DER) investment is operationally and economically viable for consumers, and participants are rewarded for the network value of their investment. **b. have incentives to improve efficiency and provide services at a quality that reflects consumer demands:** The project aims to improve awareness and operational access to Orion's Control Period Demand (CPD) mechanism, and to explore ways for customers to unlock value stacking for maximum ROI and system benefit, thereby improving the efficiency and quality of service. **c. share with consumers the benefits of efficiency gains in the supply of the regulated goods or services, including through lower prices:** C&I consumers directly benefit from reduced energy bills via CPD response, as well as the potential to stack other flexibility benefits. Broader Orion customers may also experience lower power bills due to the project's potential to defer traditional network and grid investments. The project also supports overall grid integration and decarbonisation efforts, leading to a more efficient energy system for all.

<table>
<tr>
<td>3</td>
<td><u>Benefits</u>

The project or programme is unlikely to otherwise result in any financial benefits to the EDB in the five disclosure years after the date by which it indicates that it expects it will complete its project: and/or
the benefits of the project or programme are sufficiently uncertain that the EDB would not carry out the project or programme if it could not recover some or all of the forecast costs of the project from its INTSA</td>
<td>Aligns</td>
<td>The C&I Flexibility Phase 2 project is unlikely to result in financial benefits to Orion within five years after its completion (March 31, 2032), and its benefits are sufficiently uncertain that Orion would not undertake the project if it could not recover some or all of the forecast costs of the project from its INTSA.

Unlikely to result in financial benefits within five years
While the project aims to optimise network use and potentially defer capital expenditure, the scale and concentration of C&I customers activated in this initial phase will not be sufficient to directly enable asset deferral or yield significant financial benefits for Orion in the immediate five-year post-completion period.

Sufficiently uncertain benefits
The C&I Demand Flexibility Project's benefits are uncertain; financially, direct gains for Orion – like avoided network reinforcement costs – are not guaranteed during this “CPD Enablement” phase, as the project explores unproven approaches to building C&I flexible capacity.

Operationally, the effectiveness of new mechanisms – such as enhanced Control Period Demand (CPD) signals and value stacking – on network service quality, customer participation and energy bill savings remains uncertain.

Nevertheless, the project is designed to explore innovative solutions, and is expected to provide learnings that will ultimately result in benefits to consumers and the wider electricity system (section 2.2).</td>
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Table 1: C&I Demand Flexibility Project INTSA Eligibility Alignment

2. Project-specific Information

2.1. Project's purpose and intended steps

2.1.1. Background & Context

As part of the strategic focus area to facilitate decarbonisation and hosting capacity at the lowest cost, Orion aims to maximise the scope for customer participation in flexibility and other market-based solutions. The Commercial and Industrial (C&I) Flexibility project forms a key part of this objective.

Orion (C&I) Demand Flexibility – Current Incentives

A) **Control Period Demand (CPD):** Orion's primary C&I flexibility incentive rewards demand response from its Major category connections through the Control Period Demand pricing signal (CPD). Major Customer connections receive lower fixed lines charges based on average usage during signalled winter peak events. The CPD scheme is unique to Orion but is well regarded across the industry.

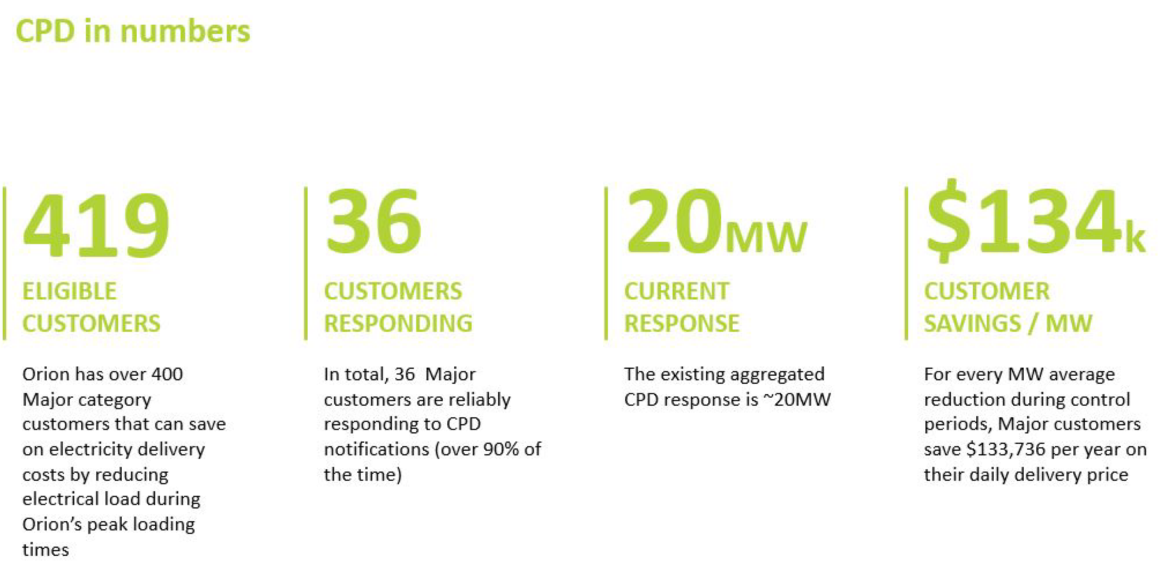

Figure 1: Orion's CPD in Numbers

While there is likely to be significant opportunity to increase CPD response, we can't yet fully quantify the scale of opportunity, and we don't have a complete picture of what it will take to improve CPD participation. The reasons for non-response from most eligible customers are complex and nuanced, and the initial stages of this project aim to improve this understanding. We want to know how to build awareness of CPD, and how to make it easier for customers to operationally implement flex, and build business cases for investment in Distributed Energy Resources (DER).

B) **Time of Use Volume Charges (TOU):** The remainder of C&I consumers (small, medium and large General connections) are not currently eligible for CPD participation. The network incentive for General connections to flex is based on TOU charges set by Orion. These incentives are calculated at the retailer level, which means non-Major Customers' level of exposure to Orion's TOU pricing is dependent on their retail agreement.

There is little doubt that TOU charges already contribute to peak demand reduction on the network, but to what extent, and across which sectors, is difficult to quantify. However, we have an indication of the 'size of the prize' for additional flexible capability across certain commercial groups listed below:

Commerial Sector	ANZSIC Code	Number of sites in Orion	DR potential network wide per event - AM peak (kVA)	DR potential network wide per event - PM peak (kVA)
Supermarkets	G411	50	2,042	2,139
Liquor Retail	G4123	40	448	672
Primary Schools	P802	125	1,094	484
High Schools	P802	25	1,458	645
Accommodation - Motels	H44	400	2,843	3,210
Accommodation - Hotels	H44	50	684	772
Aged Care Facilities	Q86	72	1,272	1,093
Dairy Farming	A16	438	1,455	1,120
Fuel retailing	G40	50	0	0
Food and Beverage Services	H45	2,073	1,950	3,277
General Retail	Used	2,829	1,309	1,094

*Figure 2: Orion Sector Demand Flex: Opportunity Quantification by **Commercial** Sector (Lumen, 2025)*

*Total commercial DR potential (AM): **14,557kVA***

*Total commercial DR potential (PM): **14,506kVA***

Note: this data includes a small number of Major Customers, and excludes some consumer groups including large public facilities such as libraries and swimming pools.

The "long tail" of TOU connections sits outside of the scope for Phase 2, but are planned to be a focus area in subsequent phases of the C&I Demand Flexibility Project.

2.1.2. Project Phases

A completed 'Discover and Define' phase (Phase 1) has successfully established a foundational understanding of C&I customer perspectives including identification of key barriers and enablers for deploying flexible energy solutions. These insights have informed the scope for Phase 2 – Enabling CPD Flexibility:

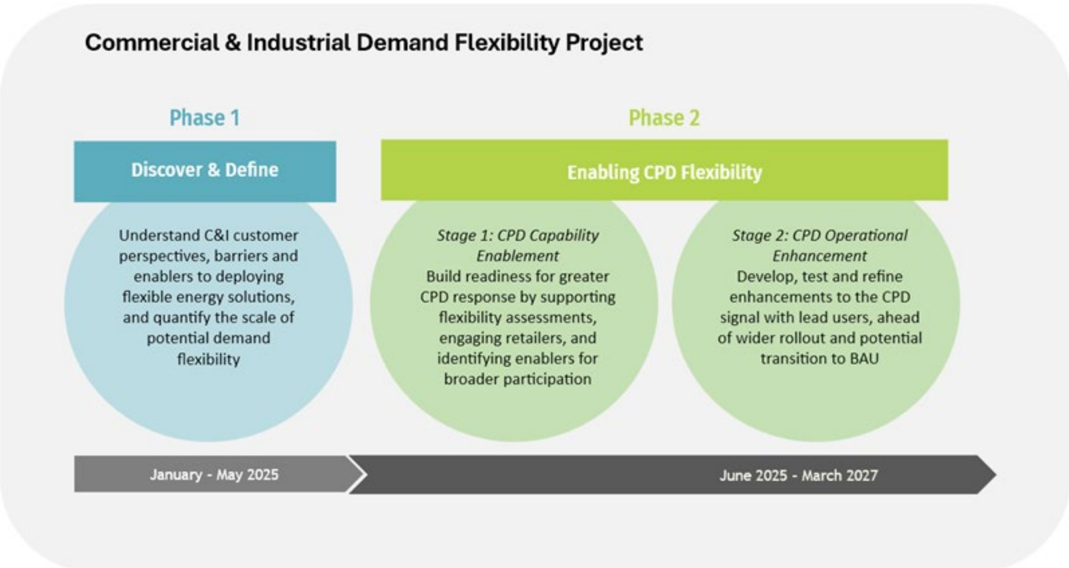

Figure 3: C&I Flex Project Phases

Phase 1: Discover & Define (phase complete)

This phase ran from January to May 2025 and focused on building a foundational understanding of C&I customer perspectives, identifying barriers and recognising enablers for deploying flexible energy solutions.

Engineering consultants Lumen conducted an initial quantitative study, pinpointing consumer types and processes to target for further investigation. Supermarkets/distribution centres, high schools/universities, cool stores, swimming pools, large facility operators, aged care facilities, and liquor retailers were some of the consumer types identified, with subsequent qualitative research specifically concentrating on the first four of these areas.

Through in-depth “empathy” interviews, insights were gathered from conversations with flexibility stakeholders across these C&I consumer types. Findings revealed that despite significant flexibility potential, participation is often hindered by:

- a lack of understanding of the operation and benefits of flexibility,
- perceived insufficient financial incentives,
- low priority and insufficient internal resourcing to develop flexible capacity,
- insufficient, or no understanding of, business case to alleviate capital cost barriers and
- operational challenges (e.g. maintaining service or compliance levels)

Conversely, key motivators included:

- financial savings,
- enhanced green credentials through decarbonisation,
- opportunities to educate and become community role models,
- secondary benefits such as local area compliance through particulate reduction and
- enhanced resilience

Phase 1 also explored collaboration avenues with other Electricity Distribution Businesses (EDBs) to address broader industry gaps and included engagement with electricity retailers to better understand the energy value of C&I flexibility.

These and other foundational insights have directly informed and shaped the strategic focus and proposed activities of Phase 2.

Phase 2: Enabling CPD Flexibility (current phase).

This phase includes scope for:

- building awareness and engagement with flexibility among Orion’s largest customers – activating, and gaining further insight into, the potential for new and optimised CPD response
- designing, testing, and implementing new C&I flexibility capabilities and operational enhancements that build on Phase 1 insights

The core objective is to collaborate with industry to enhance C&I flexibility (including enablement of process heat decarbonisation and reducing generator fuel-use) by:

- Exploring ways for customers to unlock value stacking for maximum ROI and system benefit
- Building operational readiness, visibility and trust between Orion, flexibility providers, and customers
- Enhancing the operational accessibility of Orion’s CPD response
- Exploring the potential for subsequent phases (beyond CPD), for example flexible connections

Phase 2 will begin with two CPD-focused activities, addressed in consecutive stages. Activities will focus on building collaboration and operational readiness between the wide range of C&I flexibility participants including energy consumers, aggregators/retailers, DER and energy management support services.

Phase 2 / Stage 1 – CPD Capability Enablement:

- Collaborate with flexibility stakeholders to help them raise the profile of Orion's CPD signal and operationally improve response from Orion's Major Customers.
- Open a fund to support Major Customer flexibility assessments, with a view to decarbonising existing, or activating new (non-diesel) CPD response while furthering our overall understanding of the challenges and opportunities of rolling out C&I flex at scale.
- Collaborate with participating Major Customers and internal Orion staff to understand how Orion can support new ways of operationalising flexibility.

Phase 2 / Stage 2 – CPD Operational Enhancement:

- Based on the output of Stage 1, build an MVP (Minimum Viable Product) prototype to support enhanced CPD response. For example, a CPD dashboard including historical trends, forecasting and advance notification.
- Test, assess (and refine) prototype's effectiveness in operationally enhancing existing, and enabling new, response capability.

The project will apply to, and leverage, Innovation and Non-Traditional Solution Allowance (INTSA) to support the execution of stages 1 and 2.

In conclusion, the Commercial and Industrial Demand Flexibility project is a strategic endeavour that sits within Orion's FMD Programme. By systematically identifying opportunities, understanding customer needs and actively testing and assessing new solutions, the project aims to unlock significant new C&I flexibility, contributing directly to network efficiency, customer value, and New Zealand's broader energy transition goals.

2.1.3. Key Milestones and Activities for Phase 1 and Phase 2

Table 2 outlines the key milestones and associated activities across both Phase 1: 'Discover and Define', and Phase 2: 'Enabling CPD Flexibility', of the project. It details the progression from foundational discovery to the current stage of CPD enablement and operational enhancement.

This innovation project will maintain a hybrid waterfall/agile approach - while key dates and planned durations are provided, specific dates for certain detailed activities and future milestones may be refined as the project progresses.

Key Milestones / Activities			
Phase 1 – Discover and Define		**Est. Timing**	**Date**
Milestone 1	Concept (Project Brief)	*Past*	*31/10/2024*
Milestone 2	Phase 1 Execution	*Past*	*Nov 2024 - Mar 2025*
Milestone 3	Phase 1 Completion	*Past*	*30/04/2025*
Phase 2 – Enabling CPD Flexibility			
Milestone 4	Phase 2 / Stage 1 – CPD Capability Enablement		*July 2025 – May 2026*
Activity 1 Engage retailers	• Work with electricity retailer(s) and aggregator(s) to share potential of CPD and further incentivise response	*Ongoing during Phase 02, Stage 1*	

	• Leverage data and access to C&I customers to further understand how to make CPD response more viable, feasible and desirable • Quantify the incidental *energy* value of CPD response		
Activity 2 Fund flexibility assessments	• Engage a consultancy to Pilot three initial flexibility assessments • Form qualification checklist for consultants and Major Customer eligibility • Open fund for further flexibility assessments • Consolidate findings to feed into stage 2: CPD Enhancement	*Ongoing during Phase 02, Stage 1*	
Activity 3 Explore signal enhancement	• Reflect on activities 1 and 2 and engage with internal Orion staff to understand how to enhance the CPD signal and support new ways of operationalising flexibility		
Milestone 5	Phase 2 / Stage 2: CPD Operational Enhancement		*October 2025 - May 2027*
Activity 4 Build CPD signal enhancements	• Further internal engagement on proposed approaches of CPD signal enhancement • Engage consultant to build MVP • Work with Orion Comms team for beta release	*FY26 Q3*	
Activity 5 Deploy and assess response	• Recruit lead users for winter 2026 • Work with lead users to consolidate learnings • Refine MVP, test, repeat	*FY26 Q4-FY27 Q3*	
Activity 5 Scale	• Consolidate learnings and expand trial to include more participants • Evaluate transferral to BAU / core CPD function	*Winter 2026 and beyond*	

Table 2: Key Milestones and Activities for C&I Demand Flexibility Project

2.2. Project outputs dates and expected consumer benefits

Table 3 details the key project outputs or deliverables planned for the C&I Demand Flexibility project, Phase 2. This table specifies the name, description, and projected delivery date for each output.

Outputs (Deliverables) of C&I Demand Flexibility Project			
Number	**Output Name**	**Description**	**Date**
Phase 2 (Stage 1) – CPD Capability Enablement			
Output 1	Quantification of Energy Value of CPD Response	An analysis or report quantifying the energy value of the CPD response specifically to retailers. A quantifiable output of Phase 2, Stage 1.	*By 31 March 2026 (End of FY26)*
Output 2	Funded Flexibility Assessments	Five or more completed flexibility assessments for qualifying Major Customers, with the assessment reports provided to Orion.	*By 31 March 2026 (End of FY26)*
Output 3	Interim Report	A document detailing the work undertaken, findings, and progress against objectives up to March 2026.	*By 31 March 2026 (End of FY26)*

		Updated targets and key project outcomes for FY27 (e.g., flex capacity, engagement).	
Phase 2 (Stage 2) – CPD Operational Enhancement			
Output 4	MVP prototype to support enhanced CPD response	Based on outputs 3 and 4, a technical interface or other technical solution provided by Orion to improve operationality of the CPD signal.	*By 30 April 2026 (Beginning of CPD)*
Output 5	Learnings and trial outcomes of CPD enhancement prototype	Documentation or reports consolidating insights gained from partnering with C&I customers to test improvements to the CPD signal and response mechanisms within Workstream 1.	*By 31 October 2026*
Output 6	Expanded Trial Participant Base	Reaching an increased number of C&I customers or sites participants involved in the CPD trial for winters 2025 and 2026 and leveraging data for the extended base.	*By 31 March 2027 (End of FY27), with interim results End of FY 2026)*
Output 7	Interim Report	A document detailing the work undertaken, findings, and progress against objectives up to March 2027. Updated targets and key project outcomes for FY28 (e.g., flex capacity, engagement).	*By 31 March 2027 (End of FY26)*

Table 3: Outputs for C&I Demand Flexibility Project

Table 4 outlines the expected financial and non-financial benefits for consumers resulting from the C&I Demand Flexibility project. The following table includes a description of each benefit, potential measured amounts, and the context behind these benefits.

Expected Consumers Benefit			
Benefit Category	**Benefit to Consumers**	**Measured amount if possible**	**Description / Assumptions**
Financial	Major Customers: reduced energy bill through reduced lines charges (CPD response), and potential to value-stack other flexibility benefits.	Lines charge savings are currently $133,736 per year for each additional MW average reduction during control periods for Major Customers.	Where data is made available, analysis of customer electricity bills or usage data before and after participation; tracking reported savings by participating customers. Potential to baseline new initiatives against funded flexibility assessments.
Financial	Other Orion customers: increased participation in CPD response deferring infrastructure investments and reducing costs.	Current aggregated CPD response is ~20MW from a small number of Major Customers. The scale of viable C&I flex opportunity is yet to be fully quantified.	Total aggregated new MW response during CPD events; potential to avoid or defer network investment costs.

Financial		\$2.8-6.6 million per year in cost reductions	BCG[2] estimates the cost of adding a new load as \$130/kW. This trial will test the reliability and cost of reducing load on the network, minimising the requirement for new load to be built. Orion's Future Energy Scenarios forecasts between 22 MW and 51 MW of peak reduction due to demand response by 2032.
Financial		\$1 billion NPV basis to 2050 from all flexibility	BCG expects a system saving of \$10 billion NPV basis to 2050 from demand flexibility. Orion connects 10% of New Zealand's customers, so approximately \$1 billion of this value will come from Orion's network. This trial helps to unlock this \$1 billion value by gathering results and proving the ability of residential consumers to shift load.
Non-Financial	Carbon Reduction		For sites that currently rely on local generators (e.g. diesel) for backup or flexibility, participation can lead to reduced generator run time, thus contributing to carbon reduction, aligning with diesel phase-out goals. At a national level, reducing load at peak times can also reduce reliance on large-scale coal and gas fired generation.
Non-Financial	Sustainability Targets		Achieving flexibility can help businesses meet their broader sustainability goals and potentially generate positive public relations.
Non-Financial	Improved Experience		Simplified access and clear value propositions enhance engagement with flexibility initiatives.
Non-Financial	Influence future solutions		Provide feedback through trials to influence the design of C&I customer offerings and electricity networks.
Non-Financial	Innovation and Learning		Ability to test and provide feedback on new solutions (e.g. enhanced CPD signal).

Table 4: Benefit to Consumers in the C&I Demand Flexibility Project

[2] https://www.bcg.com/publications/2022/climate-change-in-new-zealand

2.3. Estimated annual forecast costs of the C&I Demand Flexibility project

Item	Forecast costs Orion FY26	Forecast costs Orion FY27	Total
Phase 2 / Stage 1 – CPD Capability Enablement (FY26)			
External consultancy support (flexibility assessments)	$120,000		$120,000
Internal project support (project management and documentation)	$18,000		$18,000
Phase 2 / Stage 2 – CPD Operational Enhancement (FY26)			
External consultancy support (dev activities - MVP CPD enhancement)	$55,000		$55,000
Internal project support (project management and documentation)	$18,000		$18,000
Phase 2 / Stage 2 – CPD Operational Enhancement (FY27)			
External consultancy support (engage lead users; test, refine, repeat)		$40,000	$40,000
Internal project support (project management and documentation)		$18,000	$18,000
Total	**$211,000**	**$58,000**	**$269,000**

Table 5: Estimated annual forecast costs (ex GST) of the C&I Demand Flexibility project

2.4. Proportion of forecast costs that EDB wishes to recover

Orion proposes that 100% of the forecast costs of the C&I Demand Flexibility project – Phase 2 are eligible for recovery under INTSA as the project is unlikely to result in any financial benefit to Orion within five years of project completion (see Table 1). The costs and revenues attributed to this project relate to the delivery of the regulated service as defined in section 54C and will be allocated in the appropriate proportions according to the cost allocation IMs. Being able to recover project costs through an innovation allowance is a key factor in Orion continuing the C&I Demand Flexibility project. Orion is eligible to recover up to $11.8 million of INTSA allowance during DPP4. This is Orion's second INTSA application, with forecast costs being within our remaining allocation, if approved.

Item	Proportion	FY26		FY27		Total
		Capex	Opex	Capex	Opex	
C&I Flexibility proposed recoverable costs	100%	73,000	$138,000	58,000	0	$269,000
		Collaborative allowance (0.2 MAR)		Orion allowance (0.6 MAR)		Total Orion allowance (0.8 MAR)
		$2,950,000		$8,850,000		$11,800,000
This project		$0		$269,000		$269,000
Previously approved		$285,400		$0		$285,400
Remaining allowance		$2,664,600		$8,581,000		$11,245,600

Table 6: Proposed Proportion of Forecast Costs under Orion's allowance

2.5. Collaboration with EDBs

At this stage we are not formally collaborating with other EDBs on the project; however we have established a reference group of EDBs, which will convene every six weeks for project updates, knowledge sharing and project governance. This collaborative approach aims to:

- *Leverage shared resources and expertise:* The Project Reference Group will allow both Orion and other EDBs to pool their resources, knowledge, and expertise in exploring commercial and industrial flexibility.
- *Develop consistent approaches:* Working together foster more consistent methods for C&I flexibility across the New Zealand electricity system, simplifying participation for national customers and aggregators.
- *Understand diverse needs:* Enable project findings to be reviewed through the lens of different EDBs' specific network characteristics and flexibility use cases, leading to a richer understanding of C&I flexibility.
- *Develop scalable insights:* Produce insights and solutions that are broadly applicable and scalable across diverse network and customer contexts throughout New Zealand.

2.6. Quality standards exclusion

The C&I Flexibility Phase 2 project is not expected to result in any change to quality performance, and Orion is not seeking SAIDI or SAIFI exemptions for interruptions directly associated with the project.

3. Voluntary Information

3.1. Scope

The project's geographical area focuses on the regions served by Orion's network, which owns and operates the electricity distribution network that provides power to central Canterbury covering remote rural areas, regional towns and the city of Christchurch, extending over 8,000 square kilometres.

As part of Orion's strategic focus area to facilitate decarbonisation and hosting capacity at the lowest cost, The Commercial and Industrial (C&I) Demand Flexibility project aims to scale participation in flexible demand across Orion's network by enabling and enhancing customer response to existing and emerging network price signals.

The project's initial focus targets Major Customer connections to improve engagement with Orion's Control Period Demand (CPD) pricing signal. Activities include:

- Capability-building among C&I consumers
- Testing new operational tools (e.g. C&I demand forecasting and dashboards)
- Supporting DER investment and decarbonised response
- Establishing a foundation for broader C&I participation in demand flexibility.

The scope also includes investigation into potential new use cases beyond CPD, such as flexible connections and response from non-Major Customers, to inform future phases of work.

3.2. Scale

Orion is the third largest electricity distribution network in New Zealand, supplying power to approximately 229,000 homes and businesses across central Waitaha Canterbury, covering over 8,000 square kilometres.

The project targets Orion's largest electricity consumers (Major Customers), which represent a small proportion of total connection numbers (419) but a significant share of total demand. The wider opportunity (for future phases of work) includes flexible capacity from non-Major Customer C&I consumers, where conservative demand response potential exceeds 14 MW across both AM and PM peaks. The project is designed to inform future scaling of flexibility initiatives across the broader network, with system-wide relevance for decarbonisation and peak management.

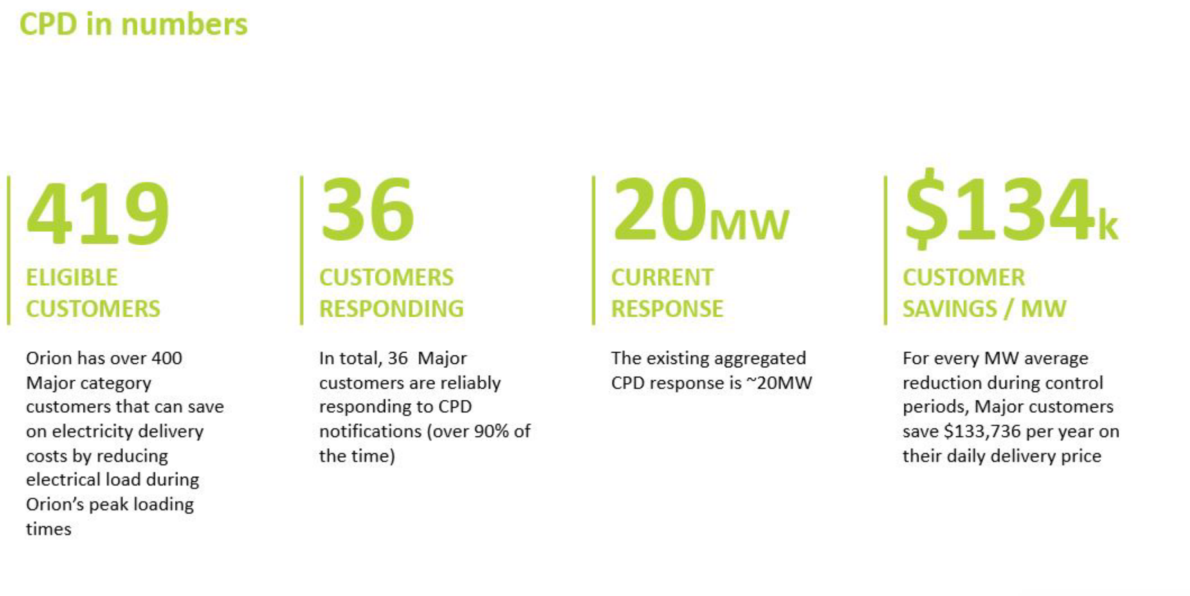

Figure 4: CPD in numbers

3.3. Geographical area

Orion's network covers 8,000 square kilometres, delivering electricity to more than 229,000 homes and businesses. The project covers the full extent of Orion's network area, including Ōtautahi Christchurch and central Waitaha Canterbury, with a focus on areas where high-load C&I customers are connected. Flexibility trials and collaboration activities will be implemented across multiple zones within the Orion network, depending on participant locations and potential for CPD or other targeted response, and taking local constraint levels into consideration. Findings will have applicability across the entire Orion region and potential transferability to other New Zealand EDBs.

Figure 5: C&I Demand Flexibility Project Geographical Coverage

3.4. How does project build on prior learning

The C&I Flexibility project builds significantly on prior learning from its own completed Phase 1: "Discover & Define," which established a foundational understanding of C&I customer perspectives, barriers, and enablers. Findings from Phase 1 have directly informed and shaped the strategic focus and activities of Phase 2.

Beyond its internal phases, the project also leverages broader industry learning:

- **Previous Orion initiatives:** It builds on work completed in the "Winter Peak '24" CPD assessment project and complements non-C&I flex initiatives such as the Lincoln Flexibility Trial, the EECA-Orion Scaled Flexibility Pilot, and Resi-Flex.
- **Cross-industry engagement:** Phase 1 explored collaboration avenues with other industry stakeholders to address broader industry gaps and included engagement with electricity retailers to better understand the energy value of C&I flexibility, and how to build customer engagement on flex.
- **C&I Flexibility Consultancy Report:** With a focus on commercial, engineering consultants Lumen conducted an initial study in Phase 1, pinpointing commercial consumer types and processes to target for further investigation, identifying specific C&I sectors with existing shiftable and curtailable load.
- **Stakeholder conversations:** In-depth "empathy" interviews with flexibility stakeholders across C&I sectors provided critical insights into participation hurdles and key motivators.

3.5. Potential for new learning

The C&I Flexibility is a strategic endeavour that sits within Orion's Flexibility and Markets Development (FMD) Programme. Phase 2 of the project has significant potential for generating new learnings for Orion and the wider industry:

- **Operationalising CPD response:** The project will co-design and test enhancements to Orion's CPD signal, such as leveraging forecasting to operationally enhance response capability. This will provide new insights into making CPD more accessible and effective for C&I customers.
- **Understanding value stacking:** By collaborating with C&I customers to trial new ways of operationalising flexibility, including value-stacking alongside CPD, the project is targeting to demonstrate how to unlock maximum ROI and system benefit. The goal is to yield new understanding of diverse revenue streams for C&I flexibility and build the business case for flex.
- **Activating Major Customers:** Financial support for Major Customer CPD capability assessment aims to activate new CPD response and further our overall understanding of the challenges and opportunities of rolling out C&I flex at scale. This provides critical learning on engaging and incentivising larger C&I customers.
- **Building operational readiness, visibility and trust:** The project aims to foster collaboration and operational readiness between energy consumers, aggregators/retailers, DER installers, energy management support services and other EDBs. This offers new learning on inter-stakeholder coordination and trust-building for flexibility.
- **Quantifying benefits case:** The project will contribute to the development of a quantified benefits case that demonstrates the value of C&I flexibility to Orion, aligned with Orion's future energy scenarios. The benefits case will provide crucial data and methodologies for integrating non-network solutions as a first consideration within network planning.

- **Building internal capability and informing external stakeholders:** The C&I Demand Flexibility project aims to build internal and external flexibility capability across Orion's network. The experience gained through collaboration with C&I flexibility stakeholders will equip Orion and other EDBs with new skills and knowledge in this evolving area. Furthermore, the project intends to inform or influence external organisations (ENA, regulation etc.) by sharing its findings and insights, potentially contributing to new industry standards, regulations, or best practices for C&I flexibility.
- **Documenting and sharing lessons learned with the wider industry:** A key component of the project involves developing reports of lessons learned and insights collected from all parties (C&I consumers, other flex stakeholders and EDBs). The explicit intent is to share these findings with the wider industry, as agreed with other project stakeholders.

3.6. Collaboration

Orion will collaborate with a wide range of C&I flexibility participants. Key stakeholders include:

- C&I Customers
- Other Electricity Distribution Businesses (EDBs)
- Retailers and Aggregators
- Electricity Authority (EA)
- Commerce Commission
- Electricity Engineers Association (EEA)
- Energy Efficiency and Conservation Authority (EECA)
- Transpower
- Orion non-C&I consumers

3.7. Alignment to sector programmes

The C&I Demand Flexibility project is aligned with key national and sector-level flexibility initiatives, supporting mutual learning and contributing to broader system transformation:

- **FlexForum:** Orion is an active participant in the national FlexForum and contributes to its core workstreams. This project directly supports the FlexForum's objectives by testing practical ways to activate and integrate C&I flexibility, particularly through enhancements to Orion's CPD signal and new operational tools. Outcomes from this work will inform and align with FlexForum's efforts to unlock distributed energy resource (DER) value at a national level.
- **Resi-Flex, Lincoln Flex and the EECA-Orion Scaled Flexibility Pilot:** Orion's Resi-Flex and Lincoln Flex trials have focused on unlocking flexibility in the residential segment, including households with controllable loads and residential battery systems. The C&I Demand Flexibility project completes the picture by targeting the commercial and industrial sector, which represents a significant but underutilised source of demand-side flexibility. Together, these initiatives aim to build a comprehensive understanding of flexibility potential across the full spectrum of Orion's customer base, helping to inform system-wide approaches to demand management, decarbonisation, and hosting capacity.
- **Electricity Networks Aotearoa (ENA) Future Networks Forum:** Orion contributes to sector strategy through participation in the ENA Future Networks Forum, which brings together electricity distribution businesses, retailers, Transpower, and regulators to coordinate flexibility readiness and system planning. The C&I Demand Flexibility project complements this work by progressing tangible initiatives in tariff design, operational readiness, flexible connection pathways, and demand-side enablement.
- **FlexTalk:** Orion is participating in national trials of FlexTalk and exploring the use of OpenADR to support secure, interoperable communication protocols for flexibility. Where appropriate, this project will explore opportunities to align any tools or platforms developed (e.g. CPD dashboards and forecasting) with these emerging standards to support long-term scalability and vendor neutrality.
- **Ancillary Services Initiatives:** The project aims to help facilitate value stacking, enabling Major Customers to respond to Orion's CPD pricing signal while also participating in Transpower's ancillary services markets, helping support the reliable operation of the wider power system. The trial will provide practical insights into the technical, commercial, and operational enablers required for multi-market participation, supporting greater revenue opportunities for customers and optimising flexibility benefits for the whole electricity system.

In summary, this project is highly complementary to ongoing sector programmes. It supports coordinated progress on flexibility enablement in Aotearoa by contributing insights, tools, and trial outcomes that are applicable across networks, while remaining closely aligned to national strategic direction and industry collaboration.

3.8. Replicable in New Zealand

A core objective of the C&I Flexibility project is to develop ways of working and learnings that can be readily adopted by other Electricity Distribution Businesses (EDBs) across New Zealand. To facilitate this, the C&I Demand Flexibility Project is committed to transparently sharing findings with other New Zealand EDBs and industry bodies, ensuring broad dissemination and enabling wider implementation. With replicability as a key design principle, the project focuses on the following aspects to ensure value to the wider sector:

- **Focus on transferable learnings:** While initially built around Orion's existing CPD scheme, the project aims to build a general understanding of how to enable C&I customers to participate in flexibility. The output will be learnings and trial outcomes relating to C&I demand flex enablement, including recommendations on how to integrate, operationalise and incentivise C&I demand flexibility at scale.
- **Collaboration and knowledge sharing:** Effective replication in Aotearoa hinges on open collaboration between industry, regulators, and communities. Sharing lessons learned, data, and practical insights – both successes and failures – enables faster progress and avoids duplication. The project EDB reference group and wider industry forums will play a key role as a neutral platform for this exchange, supporting a shared learning environment where data and insight can contribute toward new industry practice.
- **Documentation and reporting:** The project will document results and insights from industry engagement and trials of new tools, with the intent that these results and learnings will inform future strategies. The expectation is that closeout documentation will capture lessons learned to support the implementation of other flexibility projects by other EDBs or third parties.
- **Informing Regulation:** Flexibility trials and innovation activities generate real-world insights that help shape responsive, evidence-based regulation in Aotearoa. By surfacing barriers and enablers, and testing new ways of working, the C&I Demand Flexibility project aims to inform policy settings that enable safe and reliable proliferation of innovative and scalable non-network solutions.

In conclusion, the C&I Demand Flexibility project aims to contribute toward a replicable model that supports broader uptake of C&I flexibility. Through shared insights, collaboration, and clear reporting, the project seeks to accelerate the adoption of scalable solutions that strengthen the electricity system in Aotearoa.

4. Appendix

4.1. INTSA application requirements reference table

Schedule 5.3 requirement		How the requirement is met
Process for seeking Commission approval of an INTSA proposal		
(2)	A non-exempt EDB may at any point prior to six months before the end of the DPP regulatory period submit an INTSA proposal to the Commission.	This application is made before the stated deadline
(3)	If a non-exempt EDB proposes to work together with 1 or more other EDBs to carry out the project or programme in an INTSA proposal, each non-exempt EDB carrying out the project or programme that proposes to recover any of the forecast costs from the non-exempt EDB's innovation and non-traditional solutions allowance must submit an INTSA proposal.	At this stage we are not formally collaborating with other EDBs on the project; however have established a reference group of EDBs, which will convene every six weeks for project updates, knowledge sharing and project governance.
(4)	An INTSA proposal must set out the following:	
(4)(a)	the purpose of the project or programme in the INTSA proposal, and the steps that the non-exempt EDB intends to take to achieve that purpose if the Commission approves the INTSA proposal	Refer section 2.1
(4)(b)	the INTSA outputs and expected benefits of the project or programme for consumers	Refer section 2.2
(4)(c)	the date by which the non-exempt EDB expects all of the INTSA outputs for the project or programme to have been delivered	Refer section 2.2
(4)(d)	the forecast costs of the project or programme for each disclosure year up to the date by which the non-exempt EDB expects all of the INTSA outputs to have been delivered	Refer section 2.3
(4)(e)	the proportion of the forecast costs of the project or programme that the non-exempt EDB seeks to recover from the non-exempt EDB's innovation and non-traditional solutions allowance (e.g., 75% of the forecast costs of the project or programme)	Refer section 2.4
(4)(f)	an estimate of any anticipated SAIDI INTSA values or SAIFI INTSA values that the non-exempt EDB expects to exclude under Schedule 3.1 or 3.2	Refer section 2.6 (N/A)
(4)(g)	the cause or causes of the interruptions for the SAIDI INTSA	Refer section 2.6 (N/A)

	values and SAIFI INTSA values referred to in subparagraph (f)	
(4)(h)	any steps that the non-exempt EDB has taken, or proposes to take, to reduce the likelihood or impact on consumers of any interruptions referred to in subparagraph (f)	Refer section 2.6 (N/A)
(4)(i)	whether the non-exempt EDB intends to work together with 1 or more other EDBs to carry out the project or programme in the INTSA proposal and, if so, how it intends to work together with the other EDBs	Refer section 2.5
(4)(j)	sufficient information to enable the Commission to decide under paragraph (7) whether the project or programme meets the eligibility criteria under paragraph (6)	Refer sections 1, 2, 3, 4
Eligibility criteria for a project or programme in an INTSA proposal		
(6)	For the purposes of the Commission's decision on whether to approve a non-exempt EDB's INTSA proposal under paragraph (7), the eligibility criteria for a project or programme in an INTSA proposal are that—	Refer section 1
(6)(a)	the project or programme relates to the supply of electricity distribution services;	Refer section 1
(6)(b)	the project or programme promotes the purpose of Part 4 of the Act; and	Refer section 1
(6)(c)	one or both of the following applies:	
(6)(c)(ii)	the project or programme is unlikely to otherwise result in any financial benefits to the non-exempt EDB in the five disclosure years after the date by which the non-exempt EDB indicates in its INTSA proposal that it expects all of the INTSA outputs to have been delivered:	Refer section 1
(6)(c)(ii)	the benefits of the project or programme are sufficiently uncertain that the non-exempt EDB would not carry out the project or programme if it could not recover some or all of the forecast costs of the project or programme from the non-exempt EDB's innovation and non-traditional solutions allowance.	Refer section 1
EDB closeout report		
(14)	Within 50 working days of the delivery of all of the INTSA	The closeout report will be submitted to the Commission within 50 working

	outputs for the project or programme in a non-exempt EDB's INTSA proposal that the Commission has approved under paragraph (7), the non-exempt EDB must submit a closeout report to the Commission […]	days of outputs being completed (forecast to be by 31 March 2027)
Limit on innovation and non-traditional solutions allowance for each non-exempt EDB		
(19)	Subject to paragraph (20), the limit on the innovation and nontraditional solutions allowance for each non-exempt EDB for the DPP regulatory period is specified in Table 5.1 […]	Refer section 2.4
Confidential information		
(21)	Where a non-exempt EDB considers that it has a right to confidentiality in any information that it provides to the Commission under this Schedule and the non-exempt EDB does not waive the right, the non-exempt EDB must—	
(21)(a)	include that information in an appendix; and	Refer 'Introduction' (N/A)
(21)(b)	clearly mark the information as confidential.	Refer 'Introduction' (N/A)

Table 7: INTSA application requirements and how it is met