EDB Information Disclosure – recent changes to requirements and reporting

EEA Asset Information Managers' Forum

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What we will cover

- Data and ID team
- Data Strategy
  - EDB Targeted Information Disclosure Review (TIDR) 2024 – changes to reporting
  - Improved data accessibility
  - Performance Accessibility Tool (PAT)

Data Strategy

- Outcomes:
  - We make it easy for providers to provide correct ID at the right time
  - We make it easy to carry out compliance and data quality reviews
  - We make it easy to create fit for purpose datasets
  - We make it easy for interested persons to understand and use data

TIDR 2024 Purpose

- to improve the quality of disclosed information and prepare for the future to promote the long-term benefit of consumers of regulated services

Focus on the following areas:

- **Decarbonisation**
- **Asset management**
- **Quality of service**
- **Other important changes**

TIDR 2024 link

TIDR 2024 Benefits

- Part 4 remains fit-for-purpose by supporting the transition to a **low carbon economy** and encouraging **innovative approaches by providing reliable and resilient** infrastructure

- We continue to **encourage stakeholders' confidence** in our processes

- Promote the **long-term benefit of consumers**

TIDR 2024 Process

Date	Publication/Event
27 March 2023	Technical elements workshop
30 May 2023	Process paper
17 August 2023	**Draft decision and decision framework**
14 September 2023	Submissions (4 weeks)
5 October 2023	Cross-submissions (2 weeks)
November – December 2023	EDB and field service provider meetings
14 December 2023	ID Reviews Framework paper
29 February 2024	**Final decision**

Network Constraints

Problem to solve

- Changes impacting the electricity sector (eg, decarbonisation, two-way power flows) will likely lead to more network constraints.
- Those constraints will be able to be addressed more efficiently by EDBs, and potentially third parties working with EDBs, if they are known ahead of time and are made transparent to stakeholders.
- Feedback from key potential users of such information (eg, Solar Zero) was that information on network constraints was difficult to find and use in its descriptive format buried within EDBs Asset Management Plans.

ID Solutions

1. Changes to forecast capacity disclosures (Schedule 12b)
2. New AMP requirements
3. Geospatial data requirements

Network Constraints

1. Changes to forecast capacity disclosures (Schedule 12b)

EDBs are now required to report more detailed constraints information on their medium voltage networks (zone substation level), including:

- The current peak load period (the season current peak load occurred);
- Whether the substation is constrained or forecast to be constrained, and if so, further information on the type, cause and any solution to the constraint;
- If a zone substation is not currently constrained, the available capacity before it becomes constrained;
- Forecast available capacity in 5 years and an approximate range of forecast available capacity in 10 years; and
- Forecast peak load period and forecast security of supply classification in 5 and 10 years

1. Changes to forecast capacity disclosures (Schedule 12b) cont'd

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SCHEDULE 12b: REPORT ON FORECAST CAPACITY

This schedule requires a breakdown of current and forecast capacity and constraints for each zone substation. The data provided should be consistent with the information provided in the AMP. Information provided in this table should relate to the operation of the network in i

sch ref

7 **12b(i): System Growth - Zone Substations**

8	Existing Zone Substations	Current peak load (MVA)	Installed firm Capacity (MVA)	Security of Supply Classification (type)	Transfer Capacity (MVA)	Utilisation of Installed Firm Capacity %	Installed Firm Capacity +5 years (MVA)	Utilisation of Installed Firm Capacity + 5yrs %	Installed Firm Capacity Constraint +5 years (cause)	Current peak load period	Installed operating capacity (MVA)
		Not Required after DY2024		*Not Required after DY2024*	*Not Required after DY2024*	*Not Required after DY2024*	*Not Required after DY2024*	*Not Required after DY2024*	*Not Required after DY2024*	*Not Required before DY2025*	*Not Required before DY2025*
9	[Zone Substation_01]					-			[Select one]	[Select one]	
10	[Zone Substation_02]					-			[Select one]	[Select one]	

Current security of supply classification (type)	Current constraint type	Current available capacity (MVA)	Peak load period +5 yrs	Available capacity +5 yrs (MVA)	Security of supply classification +5 yrs (type)	Peak load period +10 yrs	Min. available capacity +10 yrs (MVA)	Max. available capacity +10 yrs (MVA)	Security of supply classification +10 yrs (type)	Forecast constraint type	Year of any forecast constraint	Constraint primary cause
Not Required before DY2025	*Not Required before DY2025*	*Not Required before DY2025*	*Not Required before DY2025*	*Not Required before DY2025*	*Not Required before DY2025*	*Not Required before DY2025*	*Not Required before DY2025*	*Not Required before DY2025*	*Not Required before DY2025*	*Not Required before DY2025*	*Not Required before DY2025*	*Not Required before DY2025*
[Select one]	[Select one]		[Select one]		[Select one]	[Select one]			[Select one]	[Select one]	[Select one]	[Select one]

Network Constraints

2. New AMP requirements

- EDBs are now required to describe their journey towards usable low voltage (LV) network constraint data by reporting:
  - any challenges, and progress, towards collecting or procuring data used to inform the EDB of any current and forecast constraints, including historic consumption data; and
  - any analysis and modelling (including any assumptions and limitations) the EDB undertakes, or intends to undertake, with that data.

- EDBs are also now required to report any policies or practices for sharing information on current and forecast constraints across their network (both load and injection), including any LV network constraint information, to inform the decision-making of potential consumers connecting to the network and potential providers of non-network solutions.

Network Constraints

3. Geospatial data requirements

- EDBs will now be required to disclose geospatial information about their networks in a generic geospatial data format (such as Geopackage or Shapefile). We require the following data is disclosed for each zone substation:
  - Name
  - Location (in coordinates)
  - Names/identifiers of any feeders connected to it
  - Voltage(s) it primarily transforms
  - Boundary of the area it serves

- Combined geospatial and schedule 12b information are intended to feed into an eventual national network constraints map.

Asset Management - Vegetation

Problem to solve

- Network resilience has been an increasing focus for EDBs and consumers, especially in the light of recent weather events, and we want to adapt our ID requirements to EDBs changing operating environment.

ID Solutions

- We now require EDBs to disclose more detailed information on their vegetation management, including:
  - Disaggregated opex on vegetation (including cost of damage, repairs, etc.)
  - The number of overhead circuits sites that are at high risk from vegetation damage.
  - More details on unplanned interruptions caused by vegetation.
- In response to feedback, we clarified some of the definitions within the information requested, such as “felling or trimming vegetation – in-zone” and “Vegetation-related”.
- We also acknowledged the time it would take to adjust to the new reporting, and delayed the in-force date of some of these amendments to DY26

Quality of Service

Problem to solve

- As the electrification of the economy increases, it will be increasingly important to ensure that the quality and reliability of electricity supply meets the expectations of consumers. Additionally, disclosed data is more useful when comparable, consistently provided over time, and appropriately detailed.

ID solutions

- EDBs are now required to disclose more data (and in more detail), which will allow interested parties to better identify trends in quality.
- This includes raw interruption data, with new metrics such as:
  - Circuit location
  - Feeders affected
- EDBs must also disclose their worst performing feeders (on unplanned interruptions), and further data including:
  - Most common cause of interruption
  - Number of households served
- Our draft decision was to require worst performing feeders to be based on both planned and unplanned interruptions, but following feedback in submissions this was changed to be unplanned only.

Further Issues

- As a result of submitter suggestions, we also made the following minor amendments:
  - relocated Cybersecurity disclosure requirements to remove unnecessary duplication; and
  - updated IRIS line in our schedules to align with our Input Methodologies.

- We regularly update and publish an Issues and Guidance register where we:
  - respond to stakeholder feedback that results in material and non-material amendments;
  - provide guidance and clarification on certain existing ID requirements; and
  - list some other outstanding issues that may be considered for future reviews.

[Summary of changes and in-force dates, page 30]

Recent EDB database update publication

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Name	xlsx	csv.gz	parquet
EDB_ID__2022-2024__2024.05.01	20.0Mb		
EDB_ID__2019-2024__2024.05.01	47.0Mb	9.3Mb	
EDB_ID__2012-2018__2024.05.01	49.0Mb	9.9Mb	
EDB_ID__Full__2024.05.01		20.8Mb	8.4Mb

Data dictionary: EDB_ID_Data_Dictionary (xlsx 5 Kb) (json 9 KB)

Version history: EDB_ID_Version_History (xlsx 5 Kb) (json 3 KB)

Historic data (old format): Electricity distributors' information disclosure data 2008–2012 (xlsx 15.9 Mb)

Performance Accessibility Tool (PAT) for electricity distributors

- Presents information disclosure data visually, using Tableau
- Includes profitability and revenue, capital and operating expenditure, asset condition and age, and reliability data
- Most recent release also included additional information on capital and operating expenditure and an extra page on fault rate data
  - PAT live

Key metrics

The key metrics below are based on the chosen EDB(s) and year.
(Ctrl) Click any EDB(s) on the map or bar chart.
Select any year from the slider below.
Click any number to update the map or bar graph.
View more detail by clicking the link within the pop up.

Year
2023

Choose view
EDB map

Financial data

Regulatory asset base	Line charge revenue
$15,884.4m	$2,532.8m
Regulatory profit	Return on investment
$1,240.1m	8.14%
Capital expenditure	Operating expenditure
$1,460.6m	$821.9m

System demand

Customer numbers	Electricity volume
2,256,767	32,694 GWh
Peak demand	Transformer capacity
6,808 MW	24,240 MVA

Network length

Overhead lines	Underground cables
108,074 km	50,181 km

Network reliability

SAIDI	SAIFI
284.3	2.508

Asset age & condition

Data viewer

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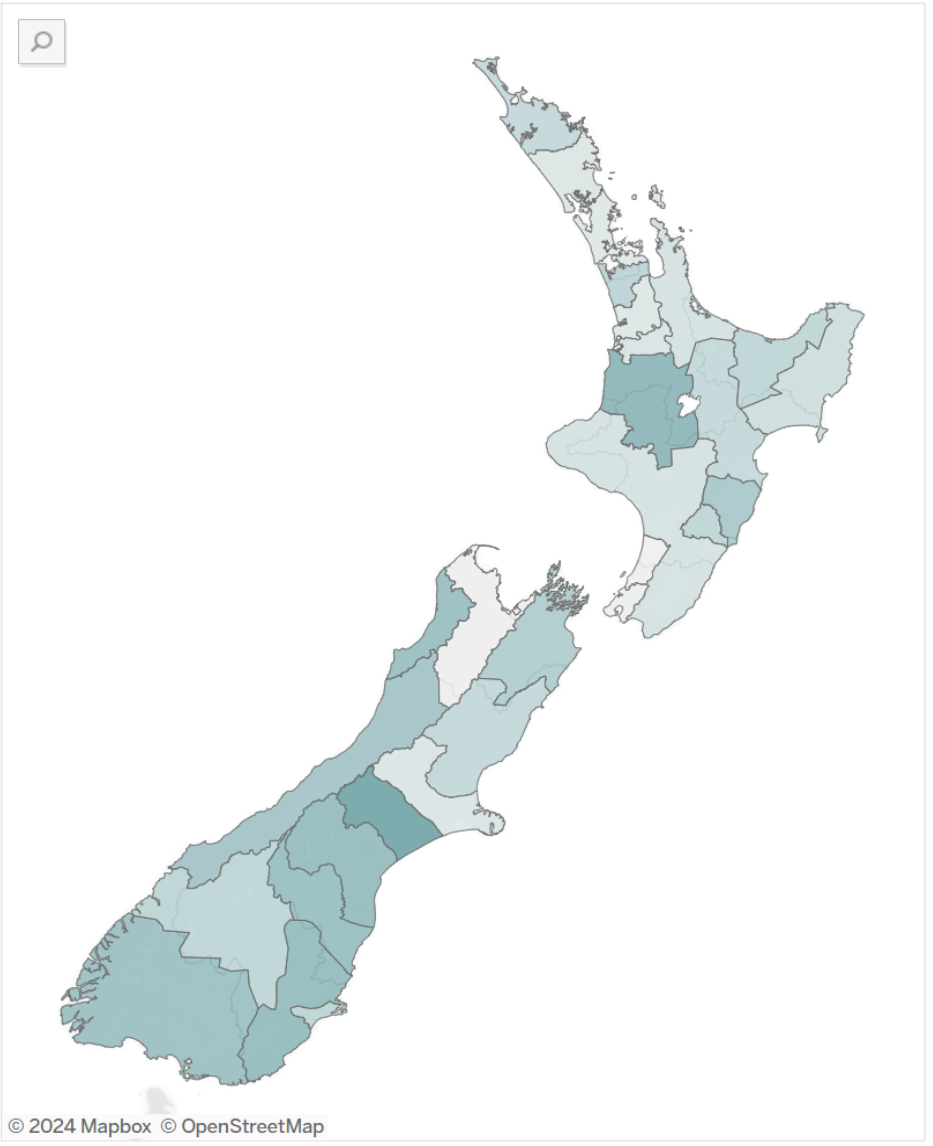
Line charge revenue per customer



View on Tableau Public

Share

Reliability by cause (SAIDI and SAIFI)

SAIDI = System Average Interruption Duration Index which measures average outage duration.
SAIFI = System Average Interruption Frequency Index which measures average outage frequency.

(Ctrl) click cause to filter graphs
(Ctrl) click EDB(s) to filter table and time-series
Use filter to view by year(s)

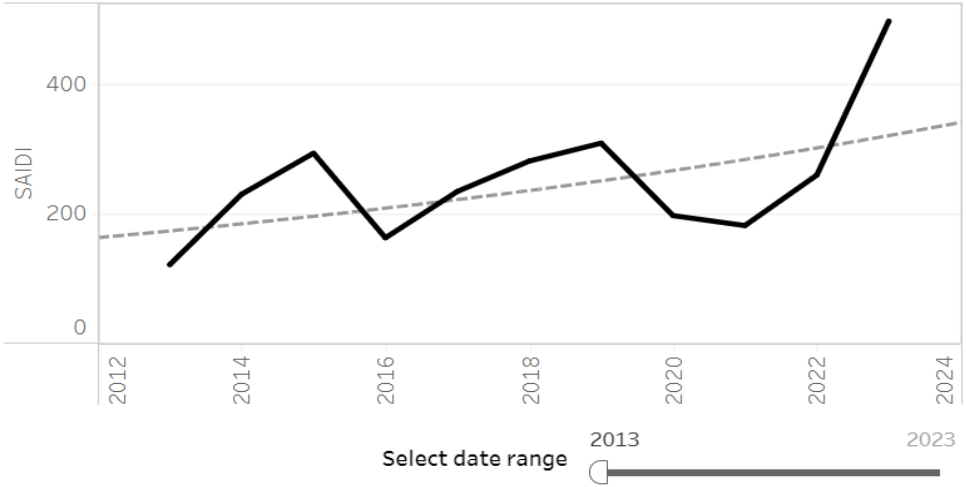
Choose year(s): 2023

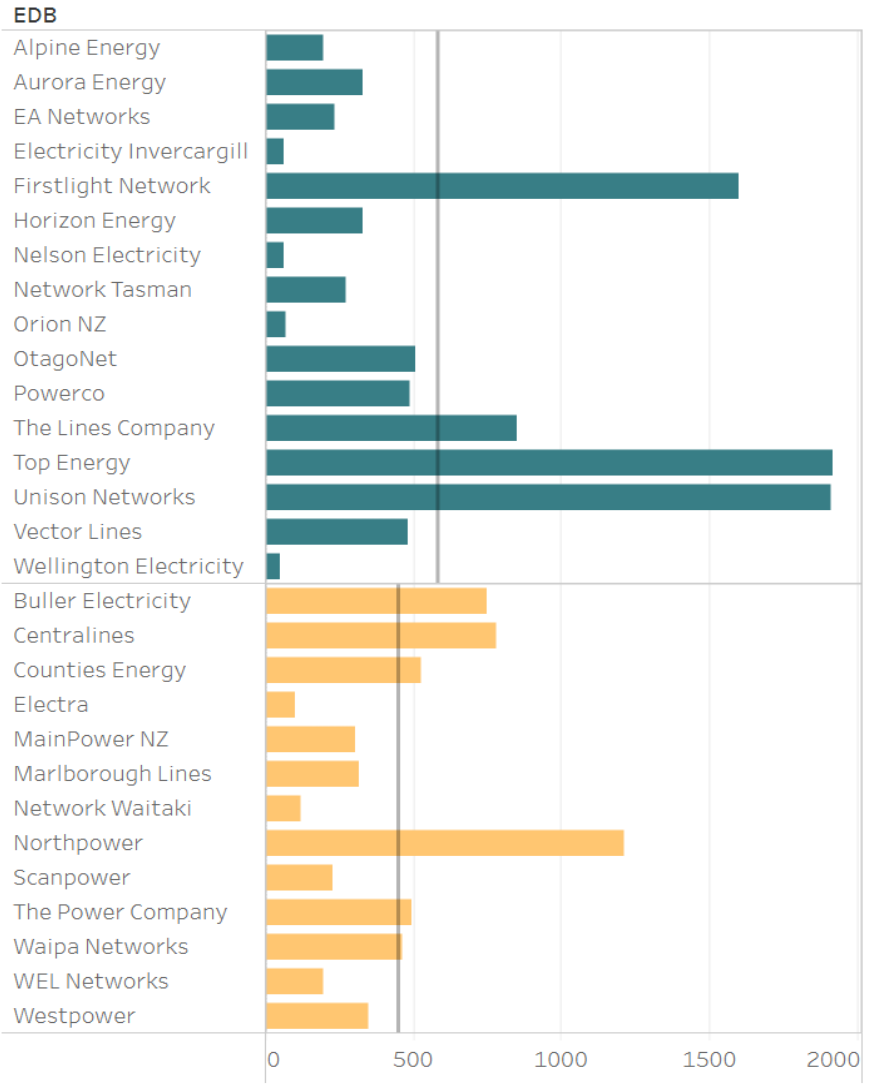
Category: SAIDI / SAIFI

Choose view: Bar chart

Choose EDB grouping: Regulation type

	SAIDI	
Planned interruption	84.5	17.1%
Adverse environment	14.9	3.0%
Adverse weather	137.2	27.7%
Defective equipment	63.0	12.7%
Human error	2.0	0.4%
Lightning	4.2	0.8%
Third party interference	19.9	4.0%
Vegetation	135.4	27.3%
Wildlife	5.2	1.1%
Cause unknown	28.9	5.8%
Class B & C interruptions	495.1	100.0%

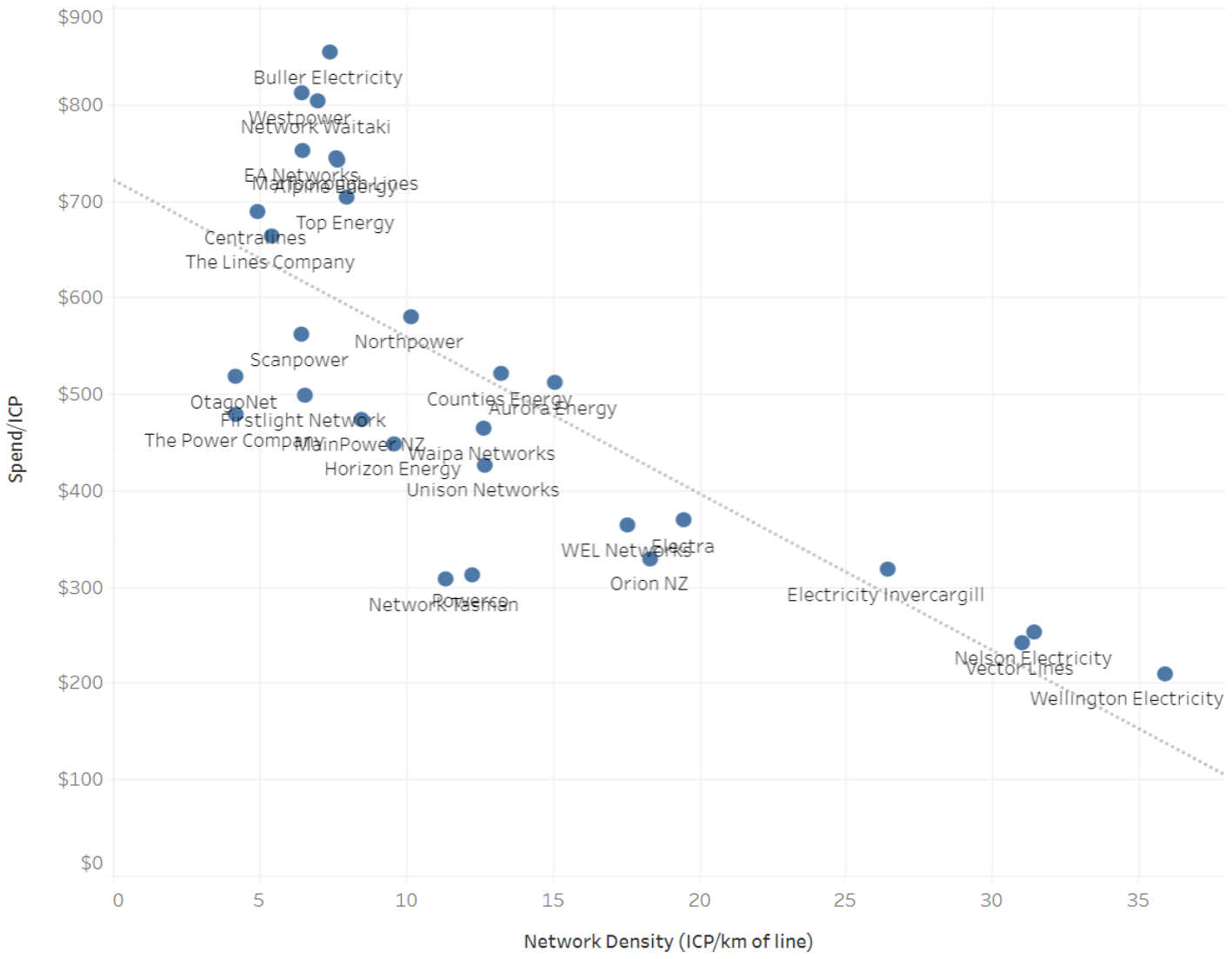




Operating Expenditure (Opex) Spend/Density

Use filters to select inflator, year, category, and sub-category
Use filter for EDB(s) to include them in the time-series

Choose Year (s): 2023 | Choose Index: nominal | Choose Category: (All) | Choose Sub-category: (All)



To compare a specific group of EDBs, unselect 'All' and then select the EDBs you are interested in comparing.

EDB

- [x] (All)
- [x] Alpine Energy
- [x] Aurora Energy
- [x] Buller Electricity
- [x] Centralines
- [x] Counties Energy
- [x] EA Networks
- [x] Electra
- [x] Electricity Invercargill
- [x] Firstlight Network
- [x] Horizon Energy
- [x] MainPower NZ
- [x] Marlborough Lines
- [x] Nelson Electricity
- [x] Network Tasman
- [x] Network Waitaki
- [x] Northpower
- [x] Orion NZ
- [x] OtagoNet
- [x] Powerco
- [x] Scanpower
- [x] The Lines Company
- [x] The Power Company
- [x] Top Energy
- [x] Unison Networks
- [x] Vector Lines
- [x] Waipa Networks
- [x] WEL Networks
- [x] Wellington Electricity
- [x] Westpower

Thank you for your attention

Questions: infrastructure.regulation@comcom.govt.nz