

## *Observations and thoughts*

**EEA Asset Management Forum 24 June**

**Commission staff**



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## *The importance of good asset management?*

High level

What are we up to?

What is this showing us?

What is our plan going forward?

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## Trustee Responsibilities



Energy  
Companies  
Act 1992

- SCI setting
- Objectives
- Performance targets and measures
- Estimate of profits and capital reserves distributed to shareholders.

Trustees Act  
1956

- Maintenance and support of beneficiary entitlement.
- Preservation and improvement of the business enterprise in the interest of beneficiaries.

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## Company Strategy Information



Annual Report	SCI KPI's reported on	Profitability
		Quality
Organisational		Strategy
		Key risks recognition
Financial		EBITDA (Cash)
		Profit
		Debt

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## Reflecting on the Customer



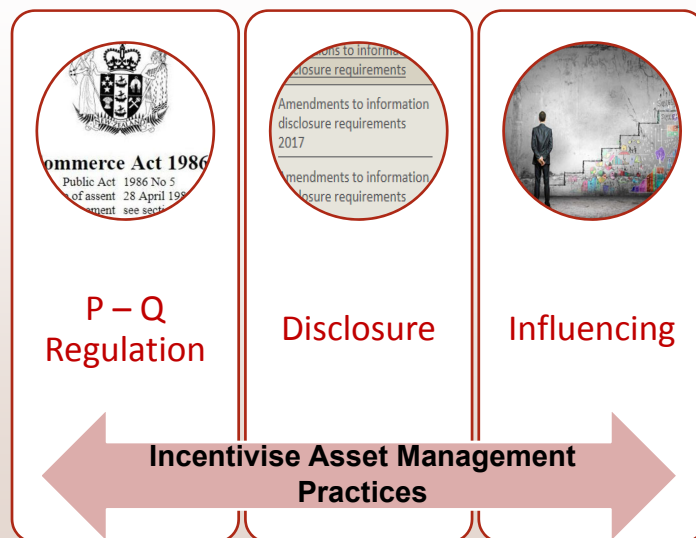
Always remember: Who is paying?

✓ Are customers better off?

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## Core activity: - Asset Management



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**Reflecting on the regulatory approaches available to help deliver customer value**



Default Price Path: compliance ceiling

CPP

Re-openers

Independent state of the network review with Commission involvement

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**Areas of Focus for Asset Management**



Investment 'sufficiency'

Health and criticality of assets

Network resilience

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## Investment



### Renewal

*Alignment of spend with depreciation is an indicator*

### Growth

*Funded by new customers and investment bankable*

### Improve ment

*Do customers want to pay more for improved service quality?*

### Opex

*Vegetation is typically the biggest direct controllable cost*

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## Typical problematic issues are lack of investment in:

Renewal

and/or

Vegetation



**Poor  
service**



Forward estimates v actuals

Depreciation v Renewal spend

Asset condition/age actuals

Hazard control

- Protection: Two poles:  
GM's: Service boxes:  
Poles: EPR: Switchgear

Vegetation trends

Quality outcome

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## Key learnings from visits

Being there is everything

✓ People interaction and listening to their achievements/problems tells you so much more.

The documents do not tell the full story

✓ SCI's, Annual reports, AMP's and pricing methodology often do not reflect the actual asset condition and the delivery of customer value proposition.

More innovation than perceived

✓ A number of innovations are taking place.

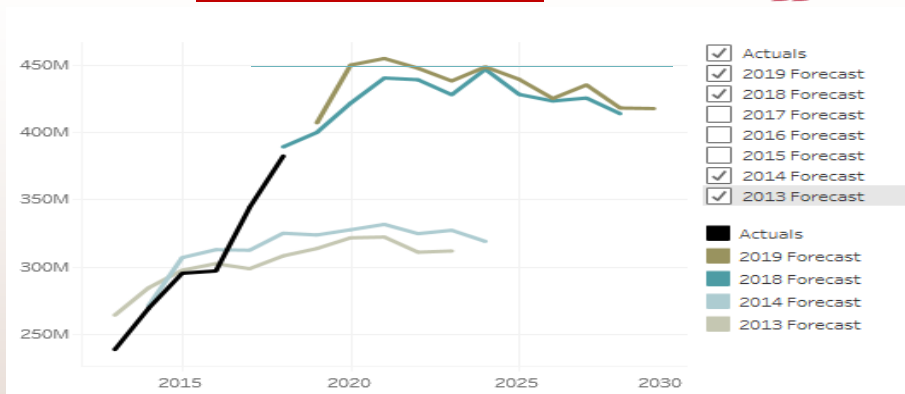
Some companies are taking on risk

✓ Other investments and some relatively high balance sheet loadings.

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## Renewal spends past and planned at the national level



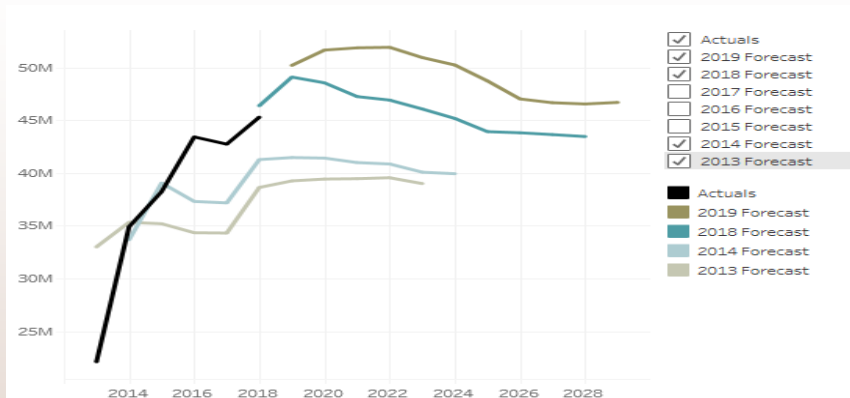
Renewal Spend Tracks: (constant dollars)

✓ Depreciation 2018 about \$450m ( — )

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## Vegetation spends past and planned at the national level



Vegetation Spend Tracks: (constant dollars)

✓ Average Spend nationally 2018: \$440 per km

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## Tools for viewing the information



The Commission is about to release a product which will allow users to access data.

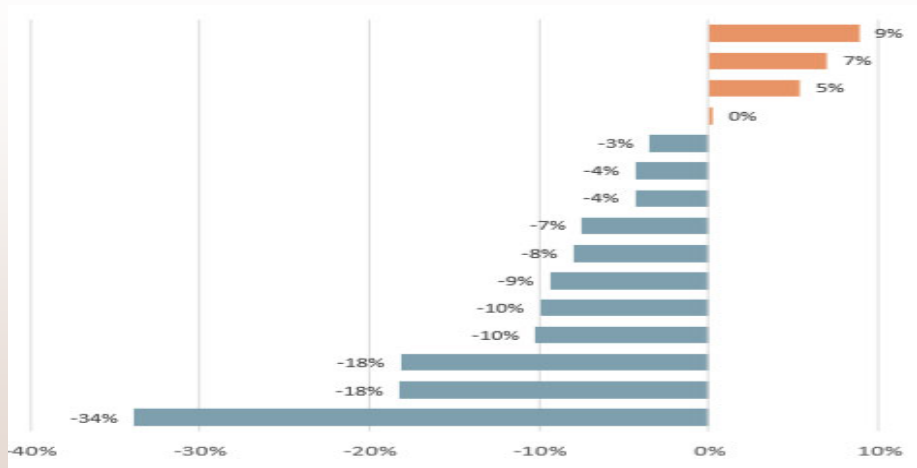
- ✓ The tool has been sent to each company for trial.
- ✓ Performance Accessibility Tool (Tableau)
- ✓ The product will allow companies' disclosed information to be viewed by interested parties.

[https://comcom.govt.nz/\\_data/assets/file/0032/59549/Performance-Accessibility-Tool-PAT-November-2017.twbx](https://comcom.govt.nz/_data/assets/file/0032/59549/Performance-Accessibility-Tool-PAT-November-2017.twbx)

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## The importance of asset management justifying spends

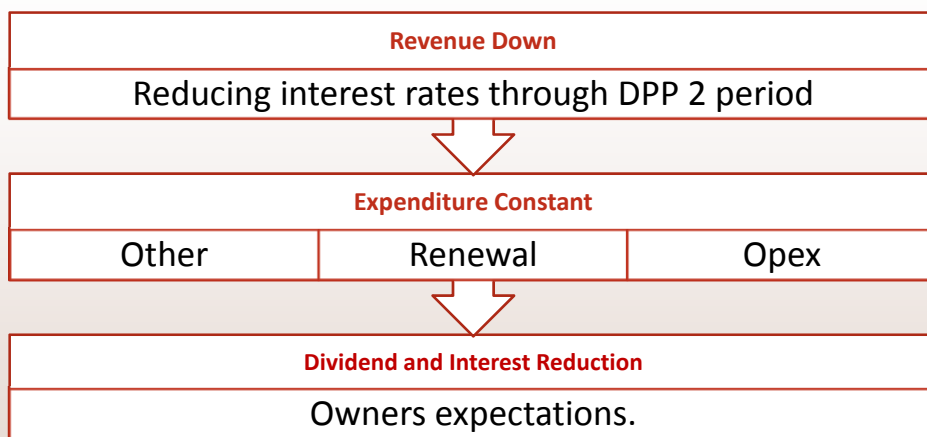


Draft DPP signalling reduced revenue to 11 companies

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## Potential organisational cash pressure



Strong Asset Management is critical to ensure owners understand the need for ongoing cash being available for renewal and opex

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## Practical approaches that may be useful



- ✓ Asset management systems with connectivity modelling capability:- Outage calculators:- Regulatory cost and valuation.
- ✓ Load flow, protection and related models.
- ✓ Shorter patrol periods and longer inspection cycles (Asset group by asset group)
- ✓ Generators, regulators, capacitors, smaller zone subs, modular switchgear.
- ✓ Restoring as quickly as possible
- ✓ Monetised priority modelling (criticality)
- ✓ Effective load control systems

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## High level information on asset health:- age



Choose an asset category

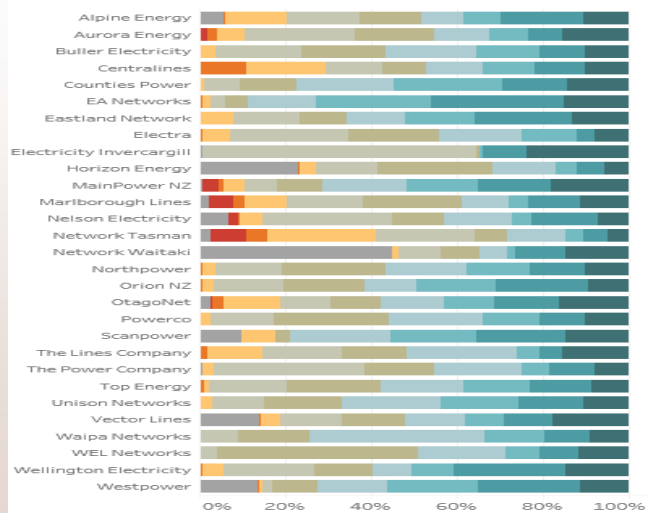
Power poles

Choose an asset class

(All)

Installation decade

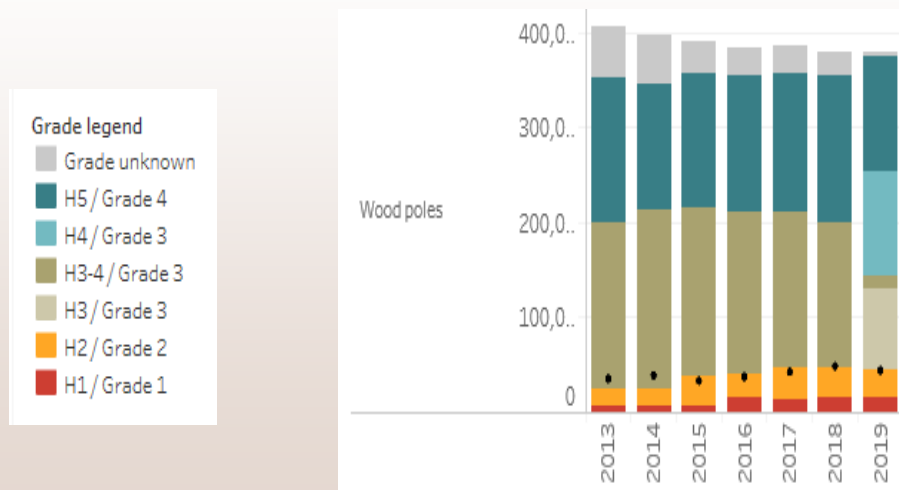
- 2010s
- 2000s
- 1990s
- 1980s
- 1970s
- 1960s
- 1950s
- 1940s
- Pre-1940
- Unknown



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## High level information on asset health: condition



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## Criticality Guide

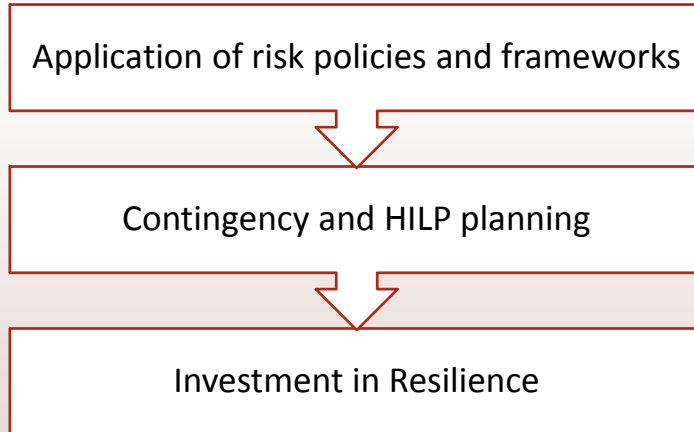
The EEA guide is a great development, a few thoughts

- ✓ Sound approach to monetise asset risk across asset fleet.
- ✓ How could it be used to understand SAIDI/SAIFI outcomes?
- ✓ Asset fault rate as an alternative to probability and define bespoke outage duration for each asset.
- ✓ Hazard and safety risk being introduced and monetisation supported.
- ✓ Any thoughts about introducing the ALARP principle also? (see HS+E website in the UK)

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## **Recent desktop risk review**



- ✓ Study showed all EDB's had some of the areas covered
- ✓ None addressed all of the issues in detail

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## **We have evidence that confirms EDB's are taking action**



### Positive observations include:

- ✓ As part of the need to renew substations they have studied and procured sites away from fault lines.
- ✓ Strengthened substation buildings.
- ✓ Renewed poles to ensure they have adequate strength for supporting loads such as distribution transformers.
- ✓ Evaluated flood risk and relocated plant away from risk areas.
- ✓ Updated switch gear, battery banks and protection systems to be more resilient.
- ✓ New control rooms to 100% plus NBS IL4.

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## **Asset Management Practices review**

### Currently taking place

- ✓ Key areas are:
  - Investment
  - Asset information
  - Quality
- ✓ Focus is on trends in ID information and how are these being addressed in the AMPs.
- ✓ A series of questions for companies are being prepared to bring out performance trends, asset information and corrective actions.
- ✓ Intention is to publish questions and answers.

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## **The next actions will likely include**

Ongoing reviewing of companies performance

Encouraging companies who have performance issues to reflect on regulatory options

Highlighting disclosed data trends

Updating Information requirements

Ongoing interaction with companies with the objective of ensuring customers expectations are met.

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## Your thoughts?

- ✓ High level
- ✓ What are we up to?
- ✓ What is this showing us?
- ✓ Our plan going forward?

Lets make NZer's better off