# SHOCKING CONVERSATIONS?

## POWER / TELECOMMUNICATIONS NETWORK CO-ORDINATION

**Workshop 20 June 2012**

**Presented by**

**The New Zealand Committee for the Co-ordination of Power and Telecommunication System Inc. (NZCCPTS)**

# Presenters

- **Michael O'Brien** — **Chairman NZCCPTS**
  **Former Transpower Manager**
- **Alan Marshall** — **Chorus**
- **Stephen Hirsch** — **Orion**
- **Dr Gordon Cameron** — **Telecom**

# Purpose of Workshop

- To introduce the new draft NZCCPT Power Co-ordination Overview Guide
- Purpose of the guide
  1. Reference, and put into the NZ context, relevant:
     - NZCCPTS Guides
     - AS/NZS standards
     - International standards
  2. Fill in the gaps

# NZCCPTS

**Formed in 1985 to meet the increasing need to develop cost effective measures to limit hazard and interference between Power and Telecommunications systems**

# NZCCPTS Members

- Transpower
- Telecom
- EEA
- KiwiRail
- Energy Safety Group, MED

# Power – Telecommunication Co-ordination is:

**A process to**

**identify and**

**analyse**

**voltages impressed onto telecommunications network conductors by a power network.**

**And where these are a problem**

**eliminate, minimize and/or mitigate**

# Communication Systems in NZ

- **Mail (post)**
- **Telegraph (1862, Lyttelton- Chch)**
- **Telephone (1877)**

# Electricity in NZ

- Early development scattered (1880's)
- Electric Lines Act 1884

  - control, construction, maintenance

  - for telegraph, telephone, & electric lighting
- Concern electric lighting would interfere with telegraph (first co-ordination concern?)

# Key Impacts

1. **Human hazard**
2. **Damage to telecommunications plant**
3. **Noise interference**

# Why is Co-ordination Important?

- **Strong inter-relationship and overlap between power networks and telecommunications networks**
- **KiwiRail has BOTH HV power and telecommunications networks down some railway corridors**
- **Transpower and Power Companies are increasingly reliant on telecommunications network circuits for protection signalling**

# Common Customers

- **Most roads in NZ have BOTH power AND telecommunications lines / cables down one or both sides of the road**
- **Electricity distribution lines and telephone lines often share the same poles**