

# Rewiring Aotearoa submission on Network visibility: Costs, benefits and value - Discussion paper

## About Rewiring Aotearoa

Rewiring Aotearoa is an independent non-partisan non-profit, funded by New Zealand philanthropy. It is a registered charity working on energy, climate, and electrification research, advocacy, and supporting communities through the energy transition. The team consists of New Zealand energy, policy, and community outreach experts who have demonstrated experience both locally and internationally. We're always fighting for the New Zealanders who use the energy system, and our goal is to help build a low cost, low emissions, high resilience electrified economy for Aotearoa NZ.

## Overview

Rewiring Aotearoa strongly supports the Authority's focus on improving network visibility to enable more efficient investment, connection, and operation of distributed energy resources (DER), that will deliver better outcomes for consumers.

To deliver this the approach to improved network visibility should:

1. Efforts to enable data sharing should be focused on data user needs
2. Make network visibility requirements mandatory
3. Establish a clear roadmap with staged milestones, that is integrated with wider work on energy system digitalisation
4. Accelerate agreement on key data and interface standards
5. Require high levels of standardisation across all EDBs to support interoperability and user access.
6. Have common requirements across all EDBs
7. Use this initiative to promote higher smart-meter penetration, particularly where visibility is low.

These are each explored in more detail below, and form our high level response to the consultation questions.

## 1. Data sharing should be focused on data user needs

To date, data has primarily been created for electricity market participants' needs (and where regulation requires it, for example the Commerce Commission Information Disclosure Requirements). Focus on provision of data for customers or their agents has been limited and data creators and holders incur costs to make data available.

It is important that the Electricity Authority's work on network visibility and more broadly on energy system digitalisation - shifts the dial and ensures a focus on broader data user needs (including potential future needs, rather than just historic users and uses).

Work on network visibility should not duplicate effort by the Electricity Authority and industry so that data and digitalisation projects are efficient.

Provision of data in all areas of the energy system should be led by Government and EA guiding principles. For example in the UK's Energy Digitalisation Taskforce developed five key recommendations including that:

*"Government and Ofgem [the UK energy regulator] should direct the sector to adopt the principle that Energy System Data should be Presumed Open, using their range of existing legislative and regulatory measures as appropriate, supported by requirements that data is 'Discoverable, Searchable, Understandable', with common 'Structures, Interfaces and Standards' and is 'Secure and Resilient'."*

## 2. Mandated visibility requirements

**Network visibility requirements need to be in the Code** (or in the Commerce Commission's information disclosure requirements). Our understanding from engagement with EDBs is that if network visibility remains optional or only encouraged through guidance, they will struggle to justify investments that create public good or societal benefits beyond their regulated business case. Regulation is required to unlock the wide public benefits, including for the long-term benefit of consumers.

Making visibility requirements mandatory provides the clarity and authority needed for EDBs to invest with confidence. A regulated requirement ensures consistency, secures funding certainty under the Commerce Commission's framework, and helps realise the full system-wide benefits of visibility — including enabling flexible demand, reducing network costs, and supporting decarbonisation.

## 3. Clear roadmap and phased implementation

A **clear Network Visibility roadmap** should be developed with defined steps and milestones, rather than a single "drop-dead" compliance date.

This roadmap should:

- Identify immediate actions (e.g. data standards and disclosure templates),
- Set interim visibility targets (e.g. for feeder-level data availability and more granular data),
- Signal longer-term expectations for real-time and automated visibility.

The **Electricity Networks Association** is well placed to coordinate this work on behalf of its members — but clear regulatory expectations and timeframes from the Authority will help maintain momentum and ensure consistent progress across the sector.

This roadmap could be considered in the context of work on energy system digitalisation so that it forms an integrated component of this wider workstream.

#### 4. Common standards must be agreed early to minimise total costs

Some EDBs are already investing in data and visibility systems. Landing on **common data standards, interfaces, and visualisation formats early** is critical to avoid inefficient divergence and duplicated effort.

Early clarity from the Authority will:

- Keep costs down across the sector,
- Ensure early movers are not penalised for proactive investment,
- Enable interoperability and third-party participation sooner.

The Authority could consider a fast-tracked process for **standard setting**, with ENA or a joint industry-regulator working group leading technical detail, under the Authority's direction.

#### 5. Common requirements across all EDBs

To maximise long-term benefits for consumers, it is critical that requirements apply across all EDBs, including “consumer owned” EDBs.

We recognise that smaller networks have more limited resources and face barriers in making large-scale IT investments. There will likely be some calling for carve-outs or alternative compliance paths for these smaller networks.

While we do not support such carve-outs, if they are pursued it is imperative that all EDBs — regardless of size — should still meet **high performance standards** in timeliness, data accuracy, and user accessibility. Otherwise the consumers (and

owners) of these networks will see investments pass them by despite potentially delivering significant value (including lower cost networks) for communities.

## 6. High standardisation across all EDBs

A consistent and user-friendly experience for data users is essential. Stakeholders such as connecting customers, other infrastructure providers, DER aggregators, researchers, and international technology providers should be able to access and interpret network data easily across all EDBs.

This requires:

- Standardised data schemas and methods for exchange, APIs etc
- A common look and feel to visibility tools and portals
- A centralised access point or portal where possible.

Standardisation minimises costs to those accessing data, supports efficient connection and encourages competition and innovation.

The way data is exchanged should not be used to make it hard or expensive for users. It is very important that the Authority scrutinises the real world impact of how data is shared and from the perspective of those accessing it to make sure unreasonable barriers are avoided at the design stage.

## 7. Leverage network visibility to lift smart meter penetration

Improved network visibility depends in part on **smart meter data**, whilst uptake is high, it remains uneven across the country. This initiative presents an opportunity to **incentivise higher smart meter penetration** in under-covered areas, particularly rural and low-income regions.

Better visibility through smart meters will:

- Enhance DER integration and management of customer energy resources (CER)
- Improve outage detection and voltage management
- Provide valuable insights for both EDBs and consumers
- Deliver broader societal benefits through more equitable participation in the energy transition.