



## What: support whole-of-system coordination and collaboration to make the power system more flexible

Households and businesses own millions of devices and appliances ('machines') that use and sometimes produce electricity. 'Flexibility' is shorthand for these machines altering their production or use of electricity in response to a signal (in much the same way as a hydro generator alters its production). With the right technical capability and market settings, devices including electric vehicles, solar and other generation, battery storage, heating and cooling equipment can be 'flexible' energy resources.

FlexForum was established as an incorporated society in July 2023 to coordinate the efforts required across the electricity ecosystem to ensure market settings, capabilities and practices are being developed at pace to ensure households and businesses can experience the full benefits from enabling flexibility and accelerated electrification. We do four things.

- make the electrification choices and actions of household, business, and communities the starting point for designing the future electricity market and system.
- bring together a whole-of-system perspective of how 'flexible' energy resources will help deliver a sustainable, affordable, and reliable electricity system.
- provide expert advice based on experience and learning-by-doing. 'Learning by doing' is at the core of FlexForum efforts.
- maintain the Flexibility Plan 1.0 which was published in August 2022 to focus and coordinate efforts, monitor, and provide accountability on progress.

## Why: faster progress to a consumer-centric, affordable and reliable power system

Flexibility is the key to unlocking a truly consumer-centric electricity market and system by giving households and businesses greater agency and autonomy over their energy costs and outcomes. Maximising these demand-side benefits requires integrating flexible resources into the power system.

Flexibility also has a critical supply-side role in ensuring a reliable and affordable electricity supply by providing a tool to efficiently respond to increasing amounts of variable electricity generation (eg, wind and solar) and the increasing pressure on transmission and distribution network infrastructure.(1)

Electrification involves more than pouring concrete and erecting steel. We need to develop the soft infrastructure needed to integrate and harness the potential of flexible resources. This requires starting now to upgrade existing electricity market and system arrangements to ensure flexibility resources are available to help maintain resilience and reliability, avoid overbuilding network and generation infrastructure, and to enable households and businesses to make well-informed and least regrets decisions around electrification.

FlexForum members want to make it easier for households, businesses and communities to maximise the value of their energy resources and their flexibility. Their flexibility will help deliver an affordable and reliable operation of the electricity system and enable accelerated electrification by households and businesses as part of Aotearoa New Zealand's transition to a zero emissions economy.

## How: using practical expertise to deliver answers at pace

FlexForum brings together the people from across the electricity ecosystem who have the immediate and practical expertise needed to work out what needs to be done.

The touchstone is [Flexibility Plan 1.0](#) which lists the steps and actions required to fully unlock the value of flexible resources. It is the only whole-of-system implementation plan currently available to coordinate the interdependent activities of 4 main policy and regulatory bodies and across dozens of large and small industry players.

Delivery will occur through four workstreams which are delivering the FlexForum workplan for 2024. The four streams align with the four building blocks of an affordable, reliable, sustainable and flexible electricity market and system.

<b>Consumer participation:</b> households, business and communities can easily make choices about and maximise the benefit of flexibility	
<b>Market frameworks:</b> pricing and financial interactions enabling market operation and consumer participation	<b>Market frameworks:</b> pricing and financial interactions enabling market operation and consumer participation
<b>Digitalisation:</b> to provide the platform for digitalised financial and operational interactions	

1. A blueprint for the future market and power system which reflects the decision points, actions and interactions (operational and financial) of a power system and market which delivers the energy (and flexibility) outcomes that people want and need.
2. A list of the existing and potential future components of how flexibility can practically deliver value to households, businesses, and communities, i.e., the current and future flexibility value stack or 'show me the money'. There is no detailed whole-of-system description of the flexibility 'value stack' and the specific financial incentives underpinning the integration of flexibility into the market and system.
3. A schematic of the digital architecture and a list of capabilities required to enable the signals and information flows to which are needed to underpin the future market and system arrangements.
4. A work plan for EECA setting out the actions required for households and businesses to see flexible EV charging as the easy and obvious choice

FlexForum is agnostic about who delivers the steps in the Plan. Several steps are being delivered by the Future Networks Forum, Electricity Authority and Electricity Engineers' Association etc. The FlexForum workplan focuses on priority tasks not being done.

Delivering practical, experience and evidence-based advice is only possible by FlexForum having a broad membership that spans the whole electricity 'ecosystem'. FlexForum is an incorporated society with 27 Members committed to making it easier for households, businesses and communities to maximise the value of their flexible resources. They back this commitment with financial support, their time and expertise. Membership extends across the electricity ecosystem. We have observers joining our activities from MBIE, Electricity Authority, Commerce Commission, EECA, Utilities Disputes and the Consumer Advocacy Council.



Delivering at pace requires resources dedicated to facilitating discussions and producing high quality outputs. FlexForum is funded by 50/50 by Member subscriptions and Ara Ake matching subscriptions up to \$250,000 for 2024. (3)

[1] Prior to 2024 we have benefited from the endorsement and financial support of MBIE. Public funding has been critical to the participation of smaller Members from outside the traditional electricity sector.

[2] The benefits of flexibility are flagged by a range of parties including Transpower, the [Market development advisory group](#), and the BCG Climate change in New Zealand: the future is electric report