

ANNUAL CORPORATE PLAN 2021/22

Four-monthly progress report
1 March to 30 June 2022

INTRODUCTION

The Annual Corporate Plan

Our Annual Corporate Plan sets out our activities for 2021/22 that will promote our strategic priorities, address regulatory risks and harms, and deliver sector outcomes. It replaces the previous work programme format and includes the key development projects we have committed to for the 2021/22 financial year.

The Annual Corporate Plan provides an opportunity to demonstrate how our work supports delivery against our sector ambitions, specifically thriving competition; low-emissions energy; and innovation flourishing.

At the centre of everything we do, and implicit within these activities, are the associated ambitions of consumer centricity and trust and confidence.




The Annual Corporate Plan is available on our website: <https://www.ea.govt.nz/about-us/strategic-planning-and-reporting/our-work-programme/>

What's in this report?

This report provides a progress update on the activity areas identified in the Annual Corporate Plan, for the four-month period 1 March to 30 June 2022.

For each activity area, we have provided a summary of the activity to date against the desired annual progress.

A traffic light system indicates the status of each activity area in terms of achieving the overall 2021/22 outcomes of the activity area.

-  The activity area is on track to achieve the annual outcomes
-  The activity area is delayed and/or at risk of not achieving the annual outcomes
-  The activity area has/will not achieve the annual outcomes

Other key areas of work

In addition to the activity areas in the Annual Corporate Plan, the Authority is undertaking a number of key workstreams to support the transition to a low-emissions energy system.

The Market Development Advisory Group's examination of how the wholesale market will operate under 100 percent renewables

The Authority's Market Development Advisory Group (MDAG) is undertaking a project investigating price discovery (including market operation and new investment in generation) in the wholesale electricity market under a 100 percent renewable electricity supply. In February 2022, the MDAG released an issues paper on 100 percent renewable power supply for consultation. This issues paper

described the key issues with the current wholesale electricity market design that MDAG believes should be explored to enable a shift to 100 percent renewable electricity supply. Consultation closed on 16 March 2022. The MDAG is analysing submissions and developing options to address the issues identified. The MDAG is expected to release an options paper for consultation in September 2022.

Responding to the 9 August event

On 9 August 2021, approximately 34,000 customers experienced an electricity cut without warning on one of the coldest nights of the year. In response, the Authority used its statutory powers under section 16(1)(g) of the Electricity Industry Act 2010 (Act) to launch a two-phase review into the outages, seeking assurance for consumers that any systemic and process issues that led to the disconnection would be corrected.

The phase one report *Immediate assurance review of the 9 August demand management event* was published on 10 September 2021. The report marked the first phase of the Authority's review into the event. Phase one of the review found shortcomings in the system operator's response and included a number of recommendations for the system operator. Transpower has made good progress and submitted numerous items to the Authority for confirmation of completion.

Phase two of the Authority's section 16 review was published in April 2022. The phase two review was wider in scope and provided a final summary of the various investigations, observations and recommendations which have been conducted by the Authority, Transpower and MBIE.

The phase two review focused on lessons that can be learnt from the event for the Authority, lines companies, the system operator, generators, retailers, and direct connect consumers.

MBIE's investigation

Many of the recommendations in MBIE's report relate to the Authority – either in its role in determining the regulatory settings or in its role overseeing Transpower. The Authority is working closely with Transpower in ensuring the recommendations are actioned. It is important to note that MBIE's report endorsed the recommendations from other reports including the Authority's phase one review.

Undesirable trading situation

Alongside the review of the 9 August event, the Authority investigated the claim of an undesirable trading situation (UTS) made by Haast Energy Trading Ltd and Electric Kiwi Ltd, and later joined by Flick Energy Ltd (Flick Electric) and Switch Utilities Ltd (Vocus NZ).

The Authority released a preliminary decision on the UTS claim in December 2021 for consultation, followed by a supplementary consultation in April 2022.

The Authority released its final decision on 28 June 2022 and concluded that there was no UTS.

The decision has been appealed to the High Court by Haast Energy Trading Ltd and Electric Kiwi Ltd.

Code breaches

The Authority has undertaken two investigations into alleged breaches of the Electricity Industry Participation Code 2010 (Code) on 9 August 2021 by Genesis Energy Limited (Genesis) and the system operator (Transpower). In addition, the Authority considered an alleged breach by Contact Energy Limited (Contact) but did not open a formal investigation on the basis that the evidence did not establish a breach.

Genesis' investigation

The Authority discontinued the investigation into a trading conduct breach alleged of Genesis for not offering generation from Huntly Unit 4 on 9 August 2021.

The investigation found no breach, concluding that Genesis' behaviour to not offer HLY4 for the evening of 9 August 2021 was within the realm of behaviours consistent with that of a rational generator which does not hold significant market power.

System operator investigation

On 12 April 2022, the Authority decided to lay a formal complaint with the Rulings Panel against Transpower as the system operator in relation to the following alleged breaches of the Code:

7.1A(1)	Code	Reasonable and prudent system operator
80	Policy Statement	Demand allocation methodology
3	Technical Code B of Schedule 8.3	Planning to minimise the impact of a grid emergency
5(1A)		Issue an island shortage situation (ISS) notice following electrical disconnection of demand

This matter is currently before the rulings panel.

Electricity Industry Amendment Bill

The Authority is preparing for the coming into force of the Electricity Industry Amendment Act, 2021. The Bill was introduced to parliament on 9 September 2021.

The amendments to the Act include an additional statutory objective and function to protect small consumers' interests in relation to their electricity supply. This additional objective is specifically aimed at the direct dealings of industry participants with domestic consumers and small business consumers.

The amendment also transfers the Part 3 Arms-Length rules from the Act into the Electricity Industry Participation Code (a new Part 6A) to give the Authority the ability to respond quickly to technological changes and promote competition and innovation in emerging distributed energy markets. It also strengthens the Authority's enforcement regime through increased penalties and gives it the ability to set information and quality requirements for distributors.

All the changes come into effect from the enactment of the Bill, the date of which is yet to be determined. The additional objective will come into force four months after enactment.

At present, the Authority is incorporating these changes into its work, policies, and procedures, to ensure compliance with the Bill once it is enacted and to adapt to the expanded jurisdiction.

SUMMARY CORPORATE PLAN 2021/22

Purpose

Enhance New Zealanders' lives, prosperity and environment through electricity

Strategic priorities

Low-Emissions Energy



Thriving Competition



Innovation Flourishing



Trust and Confidence

Consumer Centricity

Sector ambitions

Unlocking the potential for more renewable generation is a focus for the Authority. The Authority has two main priorities for this strategic priority:

- Our electricity market settings enable an efficient transition to reliable low-emissions energy in New Zealand
- Network and market price signals support the lowest overall cost to consumers

The Authority has two main impacts which drive thriving competition, which is a key enabler to deliver a better energy future – driving progress, affordability, efficiency and valuable outcomes for New Zealand:

- Market settings enable competition between distributed energy resources (DER's) and established technology solutions
- New entrants can compete on a level playing field with established participants

Evolution of the electricity system will be achieved through innovation and disruption, with both participants and the Authority thinking beyond the status quo. Our role is to help unlock the full benefits of innovation for consumers by making sure the settings are conducive to innovation and industry success:

- The regulatory system accommodates new business models
- The availability and transparency of industry data is continuously improved

Electricity Authority regulatory approach / Statutory objective

To promote competition in, reliable supply by, and the efficient operation of, the electricity industry for the long-term benefit of consumers



Thriving Competition

Market competition is a key enabler to deliver a better energy future – driving progress, affordability, efficiency, and valuable outcomes for New Zealand

Sector ambitions

Market settings enable competition between distributed energy resources (DER's) and established technology solutions

New entrants can compete on a level playing field with established participants

Majority of the activity areas under thriving competition achieved their desired annual progress for the 2021/22 financial year. The Distribution Sector Strategy activity area did not achieve its full set of objectives for the 2021/22 financial year.

A summary of progress is as follows.

- The Authority is reviewing the consumer care guidelines to ensure they will align with the Authority's additional objective to protect the interests of domestic consumers and small business consumers per the Electricity Industry Amendment Bill.
- The Authority is developing an issues paper that outlines the Authority's views of the issues with distribution networks and recommended options for some of the more easily resolvable issues. The paper is expected to be released later in 2022.
- The Authority is progressing with changes to the default distributor agreement (DDA) template and related Code changes to ensure alignment with updates to the Electricity Industry Amendment Bill.
- New public facing reports and dashboards are underway and will be completed in Q1 of 2022/23 to support the pro-active monitoring of wholesale market performance initiative.
- The Authority did not achieve the full set of objectives under the Distribution Sector Strategy activity area in the 2021/22 financial year. The Authority is working to replan deliverables.
- A new trading conduct rule has replaced previous High Standard of Trading Conduct provisions. The Authority continues to actively monitor this new rule to ensure that settings are conducive to innovation and industry success.
- The Authority published the Phase Two review of the 9 August 2021 event in April 2022, and the final decision on the 9 August 2021 UTS claim was published in June 2022.
- The *Compliance Strategy* and *Compliance Monitoring Framework* were approved in June 2022 and published on 5 July 2022. The Authority's Compliance team are continuing to develop staff capability and are exploring methods to improve timeliness of decision-making.

An overview of the activities included under thriving competition is provided in the table below.

Activity area	Desired annual progress	2021/22 Outcomes	Progress at 30 June 2022
<p>Consumer Care: Reducing energy hardship. This recommendation will produce a clearer picture of the size of the problem, ensure greater co-ordination of initiatives, and boost energy efficiency.</p>	<p>➤ Promote positive relationships between retailers and domestic consumers, domestic consumers maximising potential to access electricity and minimising harm from payment difficulties</p>	<p><i>Progress and complete implementation of the consumer care package.</i></p>	<p>● The review of the efficacy of the consumer care guidelines is underway. The guidelines are also being reviewed to ensure alignment with the Authority's anticipated new additional objective to protect the interests of domestic consumers and small business consumers in relation to the supply of electricity to those consumers.</p> <p>The Authority continues to monitor retailer alignment and consumer outcomes and develop any associated resources under business-as-usual operations including working with the Ministry of Health to:</p> <ul style="list-style-type: none"> ● update the health practitioners' notice (HP Notice) used to certify a consumer's medical dependency on electricity ● update the individual emergency response plan (to replace an Electricity Retailers Association of New Zealand (ERANZ) template) used to help medically dependent consumers plan steps to take to stay safe in the event of interruption to their electricity supply.

Activity area	Desired annual progress	2021/22 Outcomes	Progress at 30 June 2022
<p>EPR recommendation C: Increasing retail competition. Retail competition has grown in recent times, including new products, plans and services.</p>	<ul style="list-style-type: none"> ➤ Help improve awareness of Powerswitch and the Utilities Disputes process ➤ Develop a streamlined process for customer requests for consumption data ➤ Require distributors to offer retailers standard default terms for use of their network ➤ Develop and implement a pilot scheme helping non-switching customers to find better deals 	<p><i>Policy decisions in relation to EPR recommendations will be made by December 2021.</i></p> <p><i>Policy decisions in relation to EPR recommendations will be implemented by June 2022.</i></p>	<ul style="list-style-type: none"> ● The project to improve the awareness of Powerswitch and the Utilities Disputes process went live on 1 April 2021. Compliance is being monitored via auditor reports. Utilities Disputes has seen the number of queries increase since the April 2021 Code change. <p>The additional consumer choice of electricity services (ACCES) project (completed in early 2020) implemented several changes to make it easier for consumers to share their consumption data with authorised agents. In return, consumers would benefit from products and services tailored to better meet their needs.</p> <p>As part of the Authority’s work updating the regulatory settings for distribution networks, we are considering options to streamline access to consumption data for distributors and third parties, which may address any remaining issues consumers currently have with accessing their consumption data. An Issues paper is currently under development and is expected to be released for consultation later in 2022. The paper will outline our views of the issues with distribution networks and recommended options for some of the more easily resolvable issues.</p> <p>A consumer switching pilot has been completed and was successful in prompting non-switching consumers to use Powerswitch. We have commenced work on revising the DDA template and related Code changes to reflect the clarification around the Authority's jurisdiction expected to be made by the Electricity Industry Amendment Bill.</p>

Activity area	Desired annual progress	2021/22 Outcomes	Progress at 30 June 2022
<p>EPR recommendation D: Reinforcing wholesale market competition. Actions to strengthen competition and improve confidence in the wholesale market.</p>	<ul style="list-style-type: none"> ➤ Improve availability of wholesale market information ➤ Progress hedge market enhancements through Code amendments and the procurements of commercial market makers ➤ Increase reporting and awareness of the financial performance of vertically integrated participants ➤ Pro-actively monitor and report on wholesale market performance 	<p><i>Policy decisions in relation to all these EPR recommendations will be made by September 2021.</i></p> <p><i>Policy decisions in relation to all these EPR recommendations will be implemented by June 2022.</i></p>	<p>● The project to improve availability of wholesale market information was completed in early 2021. Code changes came into effect on 1 April 2021 and participants are disclosing information on a quarterly basis through a portal.</p> <p>The EPR recommendation relating to progressing hedge market enhancements through Code amendments and the procurement of commercial market makers has been completed. The Authority is continuing further enhancements to the market through commercial market making.</p> <p>The project to increase reporting and awareness of the financial performance of vertically integrated participants is complete. The enabling Code change came into force on 30 November 2021. New datasets continue to be collated and prepared to support the pro-active monitoring of wholesale market performance. New public facing reports and dashboards are underway and will be completed in Q1 of 2022/23.</p>
<p>Distribution Sector Strategy: Ensuring regulatory settings for the distribution sector support the transition to a low-emissions economy while promoting competition, reliability, and efficiency for the long-term benefit of consumers.</p>	<ul style="list-style-type: none"> ➤ Clearly identify the issues affecting the distribution sector and options to address the issues ➤ Informed by industry feedback, prioritise and stage options based on urgency, value, and ability to implement ➤ Identify preferred options based on net benefits to consumers and consult with industry 	<p><i>A package of preferred options will be ready to implement by June 2022.</i></p>	<p>● Follow-up interviews were conducted with a number of submitters to clarify aspects of their submissions. Questionnaires were sent to distributors, retailers, and metering equipment providers to gather further evidence of the issues reported in the consultation submissions. These questionnaires were circulated on 10 March 2022. An Issues paper is currently under development and is scheduled for external agency review in August 2022. This is expected to be released for consultation later in 2022. The paper will outline our views of the issues with distribution networks and recommended options for some of the more easily resolvable issues. We did not identify a package of preferred options to be ready to be implemented by June 2022, per the 2021/22 outcomes, this is due to further work being required to confirm the issues that needed to be addressed in order to follow an evidence-based policy process. We are replanning the deliverables to ensure that the quality of work produced supports robust outcomes for consumers.</p>

Activity area	Desired annual progress	2021/22 Outcomes	Progress at 30 June 2022
<p>Settings are conducive to innovation and industry success which means a proactive, agile, and forward-looking regulatory approach.</p>	<ul style="list-style-type: none"> ➤ Implement the new trading conduct provisions ➤ Examine settings in the distribution sector to provide for and allow faster uptake of new business models, products, and technologies for consumers 	<p><i>The Authority will reduce the uncertainty around the interpretation and applicability of the new trading conduct rule. Engagement with stakeholders will be ongoing.</i></p>	<ul style="list-style-type: none"> ● The Authority has amended the Code by replacing the previous High Standard of Trading Conduct (HSOTC) provisions with a new trading conduct rule that is easier to interpret and apply by industry participants. This amendment came into force on 30 June 2021. The Authority continues to actively monitor the new rule as part of an enhanced monitoring, enforcement, and compliance regime. The Authority has published its monitoring approach and a series of FAQs to support understanding of the new rule. To date, Compliance completed one fact-finding enquiry and one investigation into alleged breaches of the trading conduct rule. In both cases, the Authority declined to take further action. The distribution sector settings are being examined through the distribution strategy work. An Issues paper is currently under development and is scheduled for external agency review in August 2022. This is expected to be released later in 2022. The paper will outline our views of the issues with distribution networks and recommended options for some of the more easily resolvable issues.
<p>Increase active monitoring of market activities and outcomes.</p>	<ul style="list-style-type: none"> ➤ Complete the actions to correct for the 2019 UTS ➤ Actively monitor trading conduct within the context of the new provisions ➤ Publish analysis and insights in relation to trading conduct to increase transparency and support industry compliance 	<p><i>Publish the 2019 UTS actions to correct. Publish insights and analysis on trading conduct.</i></p>	<ul style="list-style-type: none"> ● New trading conduct provisions are being monitored and weekly reports published. Quarterly reports are being published. The Authority published the phase two review of the 9 August 2021 event, and a supplementary consultation paper on the UTS on 19 April 2022. The final decision on the 9 August 2021 UTS was published on 28 June 2022. The 2019 UTS actions to correct was published in August 2021.

Activity area	Desired annual progress	2021/22 Outcomes	Progress at 30 June 2022
<p>Monitoring and Compliance Reset: Ensuring confidence in the Authority's role as regulator, through monitoring, intervention, and enforcement.</p>	<ul style="list-style-type: none"> ➤ Develop and consult on a new long-term compliance strategy for the Authority ➤ Develop a risk-based compliance monitoring program ➤ Drive more timely decision-making on enforcement cases through process improvements and raising capability 	<p><i>The Compliance Strategy and Compliance Monitoring Strategy will be completed and implementation underway.</i></p>	<ul style="list-style-type: none"> ● The <i>Compliance Strategy</i> and <i>Compliance Monitoring Framework</i> were approved in June 2022 and published on 5 July 2022. The Authority's Compliance team are developing its capability with four staff undertaking the New Zealand Certificate in Regulatory Compliance (Core Knowledge) course. The Compliance team are continuing to explore methods to improve timeliness of decision-making by batching similar breaches and participants as one enquiry (rather than separate cases), developing a triage procedure, and considering scalable decision-making procedures.



Low-emissions Energy

Electrification is a key enabler in the transition to a low-emissions economy – with the need to electrify New Zealand’s heat, transport and increase low-carbon generation. We need to promote a stable investment environment with robust rules and clear price signals.

Sector ambitions

Our electricity market settings enable an efficient transition to reliable low-emissions energy in New Zealand

Network and market price signals support the lowest overall cost to consumers

Half of the activity areas under low-emissions energy achieved their desired annual progress in the 2021/22 financial year. Two activity areas are identified as red and did not achieve the outcomes for the 2021/22 financial year. A summary of progress is as follows.

- The Authority has consulted on and decided to make three Code changes to support implementation of the TPM.
- The Authority published updates to the *Distribution Pricing Practice Note* in May 2022.
- Consultation on final elements of the RTP Code amendment closed on 19 July 2022.
- Consultation on the draft phase two future security and resilience roadmap closed in March 2022. The roadmap is being updated to reflect feedback from consultation.
- Work to identify and triage barriers that exist to the connection and operations of new renewable generation in New Zealand's electricity market was not achieved in 2021/22 due to ongoing prioritisation of the wholesale market competition review.
- Consultation on the *Market Monitoring Review of structure, conduct and performance in the wholesale electricity market* paper and the *Inefficient price discrimination in the wholesale electricity market* papers closed on 22 December 2021. The Authority has summarised submissions for both consultation papers and will likely consult again with stakeholders later in 2022 on the next steps of the review.
- Detailed policy setting changes for the security of supply activity area did not achieved the 2021/22 target and is likely to be completed in the second half of 2022.
- There are also a number of transition-related activities that are not reported on under the Annual Corporate Plan, including MDAG’s investigation of wholesale market operation under 100 percent renewables.

An overview of the activities included under low-emissions energy is provided in the table below.

Activity area	Desired annual progress	2021/22 Outcomes	Progress at 30 June 2022
<p>Price signals: Improving the efficiency of transmission and distribution pricing to send better signals to consumers about the cost of using these networks and promote more efficient investment in DER and networks.</p>	<ul style="list-style-type: none"> ➤ Complete the Authority’s Transmission Pricing Methodology (TPM) review, targeting implementation of any changes by 1 April 2023 ➤ Year on year improvement in the efficiency of distribution pricing ➤ Continue the implementation activities for the real-time pricing (RTP) project, including software development, industry engagement and education and the system operator operational policy updates 	<p><i>Decide on any new TPM (subject to any further work identified during the consultation phase). Publish annual distribution pricing scorecards and/or decide on whether to use further regulatory tools to promote pricing reform. Deliver phase two of the market systems software implementation for RTP.</i></p>	<ul style="list-style-type: none"> ● The Authority has completed its TPM review and has decided to incorporate a new TPM into the Code (decision published 12 April 2022). In June 2022, the Authority decided to make three Code changes to support Transpower in its implementation of the new TPM, and consultation has just completed on a further Code amendment to support TPM implementation. The Authority published scorecards for distributors’ 2021/22 pricing methodologies in September 2021. Following consultation with stakeholders, the Authority finalised and published a revised <i>Distribution Pricing Practice Note</i> in December 2021 and updated it in May 2022. Phase two software delivery for RTP was successfully deployed on 26 March 2022. Consultation on the final elements of the RTP Code amendment commenced on 7 June 2022 and ran until 19 July 2022. [The phase 3 software release is on schedule for 1 November 2022 go-live. The phase 4 software release, demand side participation enhancements, has been delayed from February 2023 to April 2023.]
<p>EPR recommendation G: Preparing for a low-carbon future. More generation capacity will be needed as part of the electrification of the economy – meaning more investment, predominantly in renewable energy, such as hydro, geothermal and wind.</p>	<ul style="list-style-type: none"> ➤ Complete an investigation of Code changes required to develop reliability standards for inverters ➤ The Authority will focus the G2 project on technological changes on system stability ➤ Implement Code changes to allow batteries to participate in the reserves market 	<p><i>Complete the first stage of investigations of the security and resilience of the electricity sector.</i></p>	<ul style="list-style-type: none"> ● The system operator provided a final phase one report and a draft phase two future security and resilience roadmap that identifies the work planned to address the issues identified under phase one and its proposed priority. The final phase one report was published in March 2022. The Authority released the draft future security and resilience roadmap for consultation in March 2022. The roadmap is being updated to reflect feedback from consultation and will be published by 31 October 2022. Engagements with stakeholders on the highest priority item (review of Part 8 of the Code to incorporate the performance of new technologies and changes in the power system) will begin shortly after publication of the draft phase two future security and resilience roadmap. Code changes to allow batteries to participate in the reserves market have been implemented.

Activity area	Desired annual progress	2021/22 Outcomes	Progress at 30 June 2022
<p>As part of our strategy, the Authority wants to ensure new entrants can effectively compete with established parties. The Authority wants to ensure there are no undue barriers in the way of more parties connecting and operating new renewable generation.</p>	<ul style="list-style-type: none"> ➤ Undertake a project to identify, triage and address any barriers that exist to the connection and operation of new renewable generation in New Zealand's electricity market 	<p><i>Complete triage of identified barriers for new entrants into connecting and operating renewable generation.</i></p>	<ul style="list-style-type: none"> ● This work has not commenced beyond preliminary work completed as part of the ongoing wholesale market competition review. 2021/22 outcomes were not achieved due to ongoing prioritisation of the wholesale market competition review.
<p>Security of Supply: Ensuring the electricity sector manages security of supply effectively.</p>	<ul style="list-style-type: none"> ➤ Maintain security of supply and ensure market settings support this both now and into the future ➤ Ensure market outcomes during tight supply are reasonable and efficient 	<p><i>Complete the review of competition in the spot and forward markets, including during the dry event of winter 2021 by Q1 2021/22. Review security of supply settings in light of Q3/4 2020/21 and make any necessary policy changes by Q4 2021/22.</i></p>	<ul style="list-style-type: none"> ● The <i>Market Monitoring Review of structure, conduct and performance in the wholesale electricity market</i> paper and the <i>Inefficient price discrimination in the wholesale electricity market</i> papers were released on 27 October 2021. The consultation period closed on 22 December 2021 and the Authority received 34 submissions from a variety of stakeholders on both papers. The Authority summarised submissions for both consultation papers and will likely consult again with stakeholders later in 2022 on the next steps of the review. The review into security of supply settings is complete. The detailed policy settings (security of supply forecasting and information policy (SOSFIP)) changes has missed the 30 June 2022 target and is likely to be completed in the second half of 2022. The system operator's consultation on the proposed settings changes was completed in May 2022. The system operator is considering submissions and has yet to submit a final draft SOSFIP for the Authority's approval.



Innovation Flourishing

Evolution of the electricity system will be achieved through innovation and disruption, with participants and the Authority thinking beyond the status quo

Sector ambitions

The regulatory system accommodates new business models

The availability and transparency of industry data is continuously improved

Work in the data transparency, insights and automation activity area has progressed in the 2021/22 financial year. As at early 2022, the Authority is updating and further enhancing the input dataset for the Jade model with the intention of publishing the Jade dataset in September 2022. The GEM model reformulation work was paused throughout 2021/22 because of resource constraints, though the model is in working order. Maintenance of models and associated databases are now a business as usual activity. The distribution networks programme of work is being progressed with a focus on electric vehicle chargers. The Open Networks forum was postponed to enable focus on the distribution work.

An overview of the activity area included under innovation flourishing is provided in the table below.

Activity area	Desired annual progress	2021/22 Outcomes	Progress at 28 February 2022
<p>Data transparency, insights and automation will act as key enablers for increased deployment of distributed energy resources, and support consumers' ability to control their energy use and participate in new ways.</p>	<ul style="list-style-type: none"> ➤ The Authority will reformulate some of our models to make them easier to maintain and their input datasets updated ➤ We will also progress our open networks development programme, including the development of voluntary standards for electric vehicle chargers and medium temperature hot water heat pumps ➤ Open Networks Forum will be developed over this financial year 	<p><i>The Authority will update selected models and databases so we can apply and deliver sophisticated insights in a timely manner. The Authority will progress the open networks development programme.</i></p>	<ul style="list-style-type: none"> ● The model reformulation work was undertaken in the 2020/21 financial year and concerns two models – Doasa and GEM. The Doasa work is complete, and the model is now referred to as Jade. Jade has considerably more functionality than Doasa. The Authority is now routinely using Jade to produce water values as part of the ongoing monitoring of trading conduct. As at early 2022, we are once more updating and further enhancing the input dataset, as well as automating much of the data updating process. By 30 September 2022, Jade and a contemporary input dataset will be made open source via GitHub. This will improve transparency and integrity, and facilitate greater innovation amongst the analytics and consulting community within the sector. The GEM model reformulation work undertaken in 2020/21 was not as comprehensive as was the case with the Jade model. This has been paused throughout 2021/22 because of resource constraints. Nevertheless, the model is in working order. The commitment of effort to maintain models and associated databases is now an ongoing business-as-usual activity. <p>The distribution networks programme will discuss smart product standards for electric vehicle (EV) chargers. This will consider the recent UK requirements for EV chargers. The Authority's work will need to consider EV charger work being undertaken by EECA (a green paper on options to improve the performance of private EV chargers - to be released in the coming months). The Authority will also speak to the need for the mandatory use of open communication protocols, to enable customers to seamlessly switch providers, open up the market for new entrants and create a level playing for flexibility traders. The Open networks forum has been postponed to enable us to maintain our focus on the distribution work.</p>

