



Electricity Authority Work Programme

Report for the period

1 July 2018 – 31 October 2018

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Executive summary

The Authority's work programme details the major projects we intend to progress during the 2018/19 financial year. The most important priority 1 projects for 2018/19 are set out in table 1 below:

Table 1: Summary of priority 1 projects

Programme	Ref#	Priority 1 projects	2018/19 Project targets		Status as at 31 October
			MDC phase	% completion	
Programme A: Evolving technologies and business models	A1	Equal access	Initiate 	60%	On track
	A2	Multiple trading relationships	Initiate 	100%	On track
Programme C: Pricing and cost allocation	C1	Transmission pricing review	Develop 	90%	On track
	C2	Distribution pricing: review of pricing principles	Develop 	100%	On track
	C3	Spot market settlement on real-time pricing ¹	Develop 	100% ²	On track
Programme D: Risk and risk management	D1	Extended reserve implementation	Develop / Implement 	40%	At risk

¹ The RTP is currently in design phase. An RTP implementation project will be added to the work programme if and when funding is secured.

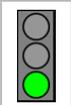
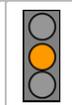
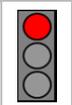
² The design phase will be completed upon publishing the decision paper for the final RTP design.

Introduction and purpose

This is a progress report against our 2018/19 work programme³. The work programme is an internal planning document, which sets out our major projects for the coming year. It does not include our business-as-usual activities, minor projects or any 'pending' projects that we currently do not have the resources to pursue.

Project status

'Traffic lights' are used in the work programme report to indicate whether project milestones and/or deliverables are on track to be achieved. Unless otherwise stated, the expectation is that all project milestones and/or deliverables in the work programme will be achieved by the end of the financial year.

	Project milestones and/or deliverables achieved or on track to be achieved		Project milestones and/or deliverables are at risk		Project milestones and/or deliverables not achieved or not able to be achieved
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Changes during the year

We remain flexible and responsive in the management of this work programme. Reprioritisation takes place as required during the year, for example if new projects are started, or if new information becomes available about a specific project.

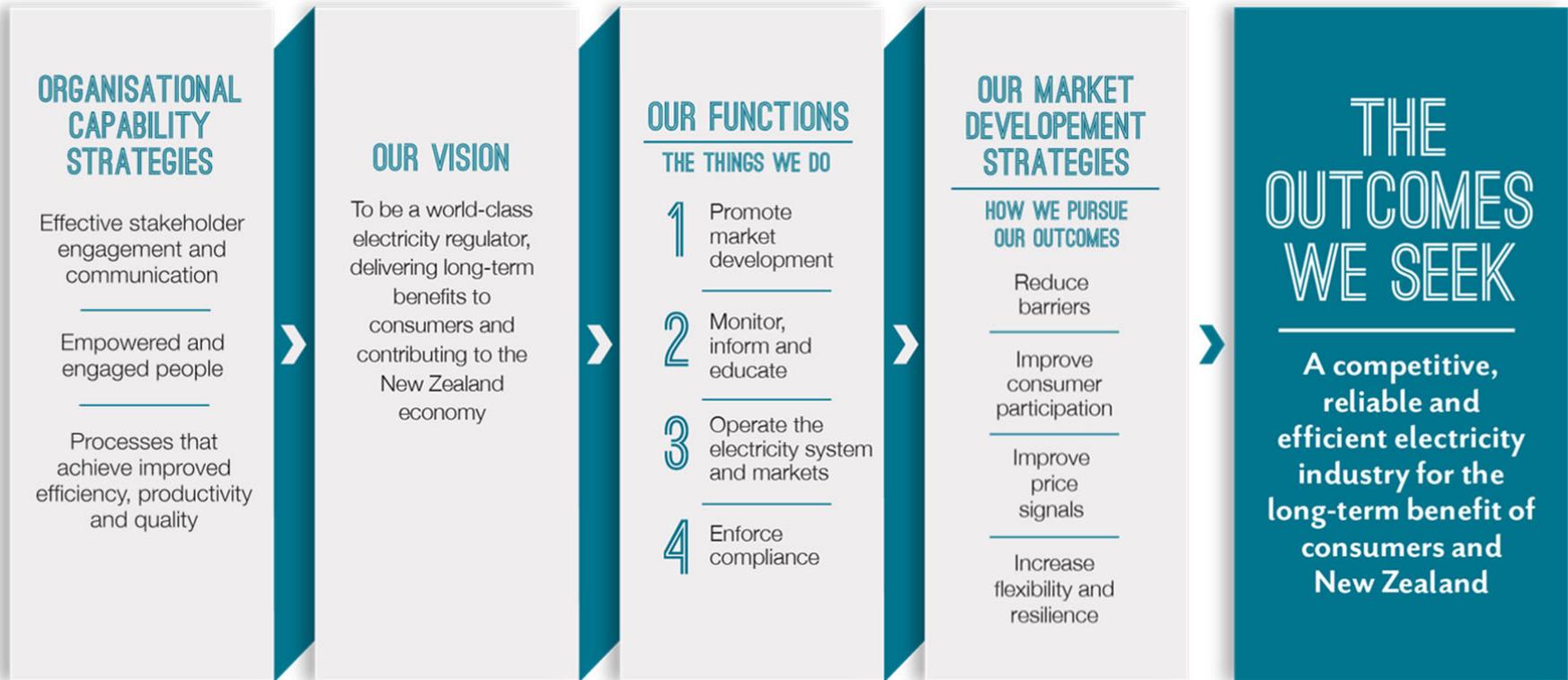
This report includes amendments made to the work programme as a result of reviews completed during the year. These amendments are shown as ~~tracked changes~~ **tracked changes**. New projects initiated during the financial year are *italicised*.

³ The work programme is available on our website at <https://www.ea.govt.nz/dmsdocument/23834-201819-work-programme>

Our strategic framework

Our 2017–21 SOI sets out our strategic framework, along with impact measures and targets reflecting our long-term strategic intentions for the next four years. The 2018/19 Statement of Performance Expectations (SPE) introduced an amended strategic framework, as shown in Figure 1.

Figure 1: The Electricity Authority’s strategic framework



Linking our strategy and work programme

To remain responsive to changes in our operating environment, we review the focus of our work programme each year. We then set out in the SPE how our work for the coming year is expected to contribute to achieving our strategic objectives.

Along with the exercise of our functions, the work programme also makes a significant contribution to achieving our strategic objectives. The work programme framework has five distinct programmes (A to E), each linked to delivery of one or more of our key strategies. The specific links between our programmes and our strategic priorities are described in Table 2.

Table 2: A summary of our work programme framework

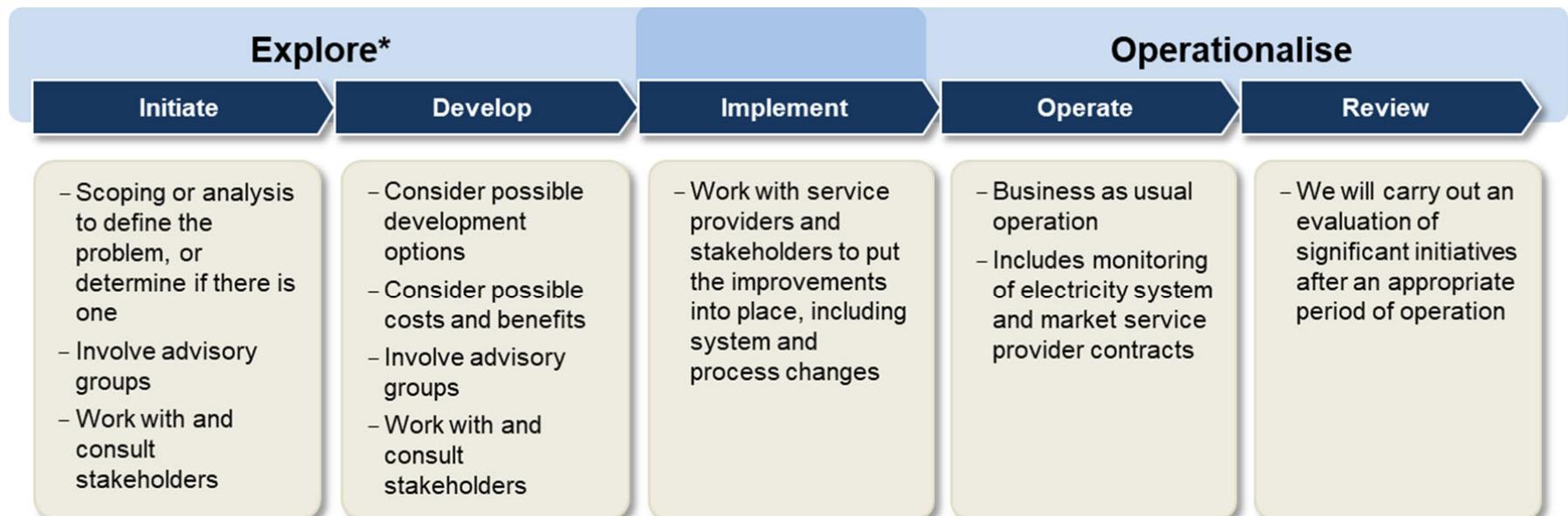
Programmes	Programme descriptions	Links to our market development strategies
Programme A: Evolving technologies and business models	Initiatives to reduce inefficient barriers to the development and use of evolving technologies and business models across the supply chain.	Reduce barriers
Programme B: Consumer choice and competition	Initiatives to promote competition and empower consumer choice in the retail market.	Improve consumer participation
Programme C: Pricing and cost allocation	Initiatives to promote efficient pricing in markets and for monopoly services.	Improve price signals
Programme D: Risk and risk management	Initiatives to promote efficient management of capacity and energy risks.	Improve price signals Increase flexibility and resilience
Programme E: Operational efficiencies	Initiatives to increase the efficiency of electricity market operations, including services provided by market operations service providers.	Supports all our strategies

Our market development cycle

Each project on the 2018/19 work programme includes:

- a proposed project target for 2018/19
- a proposed market development cycle (MDC) phase, to help summarise and contextualise the proposed focus of the project.

A high-level cost-benefit assessment is normally carried out during the initiate phase of a project, with more detailed assessments developed during subsequent phases of the MDC. The five MDC phases are described below:



* Most projects on the annual Work Programme conclude once the *Implement* phase of the MDC cycle has been completed.

Our project prioritisation approach

We review the progress of our projects throughout the year, drawing from our programme framework and prioritisation approach to assist us with considering the strategic impact of any project delays before determining what, if any, corrective action will be taken.

Projects in the 2018/19 work programme have been assigned to one of two priority categories (see below). Prioritisation assists us to quickly establish the relative importance of any project delays and to determine appropriate action, which may sometimes include the reprioritisation of resources from lower priority projects:

- a) **Priority 1 projects – top priority:** These projects make the strongest contribution to our statutory objective and strategic impacts. They showcase our market development and implementation capability and reflect our key code amendment and market facilitation initiatives. To ensure the timely delivery of priority 1 projects, the CE may approve the reallocation of priority 2 project resources (if required).
- b) **Priority 2 projects – priority with discretion:** these are also very important projects, and delivery of milestones in the financial year is a key focus for the Authority. However, the CE may approve the reallocation of priority 2 project resources to ensure the delivery of priority 1 projects (if required).

Programme A: Evolving technologies and business models

This programme covers initiatives to reduce inefficient barriers to the development and use of evolving technologies and business models across the supply chain. This includes reducing inefficient barriers to:

- any consumers purchasing directly from the wholesale electricity market or directly from local generators
- mass-market demand response (DR) and aggregators of mass-market DR
- mass-market distributed energy resources (DERs) and aggregators of mass-market DERs. DERs include traditional distributed generation, batteries, micro-grids and ‘prosumer’ situations.

This programme aligns with our *reduce barriers* strategy in the SPE.

Ref#	Project name	Priority	Description & rationale	2018/19 MDC stage and target description	Status	Comment
A1	Equal access	1	<p>The Innovation and Participation Advisory Group (IPAG) is to consider and report on:</p> <p>(a) the effectiveness of the operation of the existing equal access framework for transmission and distribution networks , eg establishing the current feasibility for competitive supply of network support services</p> <p>(b) Potential options to strengthen the equal access framework</p> <p>(c) The design, cost and benefits of any changes (regulations and/or market facilitation measures) identified to strengthen the equal access framework (including arrangements for exchange of network support services).</p> <p>Why we are doing this project?</p> <p>The Authority is concerned network users are not confident that they will be treated equally when connecting to or using the distribution and transmission networks to either deliver services over the network or provide services to the network itself. The Authority is concerned the lack of confidence will adversely affect competition, reliability and efficiency.</p>	<p>Initiate</p> <p>Board decide response to IPAG advice</p>		<p>The IPAG is developing advice to provide to the Authority Board in 2019.</p>

Ref#	Project name	Priority	Description & rationale	2018/19 MDC stage and target description	Status	Comment
A2	Multiple trading relationships	1	<p>This project investigates whether there are inefficient barriers to multiple trading relationships developing as new technology emerges. Barriers could include the data exchange required for these relationships to exist and the technical ability to connect. This project will look at the feasibility and options to allow for multiple traders at an ICP.</p> <p>Why we are doing this project?</p> <p>Consumers are increasingly able to obtain electricity services (including retail, generation, and demand response) from multiple suppliers. At present, the Code and industry practices limit consumers' ability to establish relationships with more than one electricity services provider.</p> <p>Reducing barriers to multiple trading relationships could promote competition, for example by facilitating development of new business models and services. There is also potential to promote reliability by using diverse, small-scale distributed energy resources.</p>	<p> Initiate</p> <p>If needed, amend the Code to reduce inefficient barriers to MTRs</p>		<p>We will work with stakeholders to develop options for consultation in early 2019.</p>
A3	Review of distribution sector	2	<p>The Authority anticipates that rapid technological change is going to have an increasing effect on electricity distribution businesses (EDBs). EDBs have varied governance arrangements and widely varying sizes. Some have ancillary businesses that are not regulated.</p> <p>Why we are doing this project?</p> <p>We want to assess, and better understand the factors which influence, the readiness and capability of EDBs to respond to technological change.</p>	<p> Initiate</p> <p>Board to decide on response to the review</p>		<p>A survey, developed and tested with EDB input, is ready to be sent; follow up meetings will be scheduled in 2019.</p>

Ref#	Project name	Priority	Description & rationale	2018/19 MDC stage and target description	Status	Comment
A4	Participation of new generating technologies in the wholesale market	2	<p>Investigate and address any barriers in the code to the efficient operation of new generating technologies in the wholesale market (eg offer, dispatch, spot price arbitrage and ancillary service market participation).</p> <p>Why we are doing this project?</p> <p>Removing any barriers to different forms of generating technologies in the wholesale market could improve competition, contribute to reliability and potentially improve the operational efficiency of the electricity industry.</p>	<p> Initiate</p> <p>Initiate development of consultation paper, possibly as a discussion paper by MDAG.</p>		<p>A working paper is being progressed for MDAG consideration.</p> <p>We will seek MDAG agreement for this project to be added to its work plan.</p>

Programme B: Consumer choice and competition

This programme covers initiatives to promote consumer participation through the retail market. Aspects relating to prosumers and/or consumer participation directly in wholesale markets are covered in programme A.

This programme aligns with our *improve consumer participation* strategy.

Ref#	Project name	Priority	Description & rationale	2018/19 MDC stage and target description	Status	Comment
B1	Default distributor agreement (DDA)	2	<p>A review to consider amending the Code to introduce a default distributor agreement.</p> <p>The contractual relationship between a distributor and retailers is set out in a distribution agreement (also known as a use-of-system agreement (UoSA)). The UoSA sets out the terms of the service provided by a distributor to the retailers trading on its network.</p> <p>The DDA is an important part of developing an equal access framework and promoting more participation, innovation and competition.</p> <p>Why are we doing this project?</p> <p>A DDA is likely to promote retail competition, reliability and efficient operation. A DDA could reduce entry and expansion barriers, reduce the costs of doing business, and enhance innovation in the retail market.</p> <p>The terms of the relationship between a distributor and retailers are important for retail competition and efficiency.</p>	<p>Develop </p> <p>If needed, amend the code</p>		<p>The project target may not be achieved in 2018/19.</p> <p>The Authority's power to introduce a DDA is being contested by Vector and Entrust at the Court of Appeal.</p> <p>Consultation is being deferred until the Court of Appeal decision is known.</p>

Ref#	Project name	Priority	Description & rationale	2018/19 MDC stage and target description	Status	Comment
B2	What's my number and repurposed information campaign	2	<p>Promote to consumers the benefits of comparing and switching retailers using a multi-channel advertising campaign—and consider the benefits of continuing WMN in its current form, to determine whether the campaign needs to evolve given innovation in services and products and emerging technologies.</p> <p>Why are we doing this project?</p> <p>WMN encourages consumers to shop around by increasing awareness of the possible savings available and that it is easy to switch. However, consumers are increasingly choosing between traditional and emerging innovative services and products, and between suppliers of these products (eg solar, batteries, electric vehicles, etc). As we continue to implement the current campaign, we will be reviewing whether greater long-term benefits to consumers could be realised through a repurposed campaign.</p>	<p>Initiate</p> <p>Deliver 2018 WMN winter campaign. Decide to continue WMN and/or to develop a repurposed information campaign.</p>		<p>The 2018 WMN Winter campaign has been delivered.</p> <p>A report and recommendations on whether to continue and/or to develop a repurposed information campaign will be presented to the Board in December.</p>
B3	Saves and win-backs	2	<p>A project to consider whether changes to the Code are required in response to the post-implementation review of the 'saves' Code provisions. MDAG will complete consultation on an issues paper on 29 June 2018 and then will consider the next steps.</p> <p>Why are we doing this project?</p> <p>It is important that new entrant retailers have a 'level playing field' for competing for customers, and that saves and win-backs do not impede efficient competition.</p>	<p>Develop</p> <p>Decide response to MDAG recommendations on saves protection scheme.</p>		<p>The MDAG is drafting a recommendations paper for presentation to the Board by March 2019.</p>

Programme C: Pricing and cost allocation

This programme covers initiatives to promote efficient pricing in markets and for monopoly services. This programme aligns with our *improve price signals* strategy.

Ref#	Project name	Priority	Description & rationale	2018/19 MDC stage and target description	Status	Comment
C1	Transmission pricing review	1	<p>A review of the transmission pricing guidelines.</p> <p>Why are we doing this project?</p> <p>We want to improve operational and investment efficiency in the transmission sector. This will also contribute to efficiency in the broader electricity market.</p> <p>More efficient transmission pricing will promote more efficient use of the transmission network and more efficient investment in the transmission network and by parties using the transmission network.</p>	<p>Develop</p> <p>Complete development of draft TPM guidelines for consultation.</p>		<p>A cost-benefit analysis is being developed and drafting of the TPM guidelines has commenced.</p>
C2	Distribution pricing: review of pricing principles	1	<p>Reforms to the pricing of distribution services to promote efficiency and competition, and to facilitate innovation in technology and business models.</p> <p>Why are we doing this project?</p> <p>We want to make sure distribution prices signal efficient investment in and use of evolving technologies.</p> <p>More efficient distribution pricing will promote more efficient use of, and investment in, the distribution network and across the electricity supply chain. Prices that are service-based and cost-reflective will contribute to efficiency in the broader electricity market.</p> <p>This will promote efficiency and competition as better pricing information will lead to improved decision-making by consumers and other parties using distribution networks.</p>	<p>Develop</p> <p>Decide whether to introduce revised market facilitation measure for distribution pricing (pricing principles).</p>		<p>The Authority has written to lines company directors calling for faster action on distribution pricing reform. Consultation will start in December 2018 and a decision paper will be presented to the Board by May 2019.</p>

Ref#	Project name	Priority	Description & rationale	2018/19 MDC stage and target description	Status	Comment
C3	Spot market settlement on real-time pricing	1	<p>Complete design of the systems, processes, and enabling Code amendments required to implement settlement based on wholesale spot market prices produced in real-time.</p> <p>Why are we doing this project?</p> <p>We want to reduce barriers to retail competition and new technologies for demand response arising from current spot market arrangements.</p> <p>Enhancements to the spot market pricing arrangements have the potential to increase competition in the hedge and retail markets, and improve reliability and operational efficiency through greater technology adoption and demand responsiveness to spot market prices.</p>	<p>Develop</p> <p>Publish decision paper on final RTP design and Code amendment.</p>		<p>A secondary consultation will be undertaken in early 2019 and a decision paper on the final RTP design and Code amendments will be presented to the Board in June 2019.</p>
C4	ACOT implementation	2	<p>Implement as required under the Code.</p> <p>Why are we doing this project?</p> <p>Implementing the approved changes will promote efficient investment in transmission and distributed generation.</p>	<p>Implement</p> <p>Complete implementation of ACOT arrangements as required by the Code</p>		<p>Implementation is close to completion. Consultation on the draft lists of distributed generation has been completed for all 4 transmission regions. We are currently analysing submissions.</p>
C5	Implementation of new wind generation offer provisions	2	<p>This project will implement improvements to offer and dispatch Code provisions for wind generators.</p> <p>Why are we doing this project?</p> <p>To improve offer provisions covering wind generators to ensure that they promote reliability and efficiency in the long-term interests of consumers.</p>	<p>Implement</p> <p>Initiate implementation.</p>		<p>The project necessary to implement market tool changes is being initiated with the system operator and NZX.</p>

Ref#	Project name	Priority	Description & rationale	2018/19 MDC stage and target description	Status	Comment
C6	Review of spot market trading conduct provisions	2	<p>Review trading conduct provisions in light of events that have tested these provisions. Take into account any findings from case studies, performance reports and compliance reports.</p> <p>Why are we doing this project?</p> <p>To ensure the trading conduct provisions are effective in promoting outcomes consistent with workable competition.</p>	<p>Develop </p> <p>MDAG publish discussion paper, if any.</p>		<p>MDAG has begun drafting the discussion paper. This is expected to be published by June 2019.</p>

Programme D: Risk and risk management

This programme covers initiatives to promote efficient management of capacity and energy risks. This programme aligns with our *increase flexibility and resilience* strategy.

Ref#	Project name	Priority	Description	2018/19 MDC stage and target description	Status	Comment
D1	Extended reserve implementation	1	<p>Replace the current 2-block common mandate scheme for automatic under-frequency load shedding (AUFLS) with a centrally-selected 4-block plus df/dt extended reserve scheme</p> <p>Why are we doing this project?</p> <p>We are seeking more efficient provision and use of extended reserve.</p> <p>Contributes to the efficiency and reliability limbs of the Authority's statutory objective.</p>	<p>Develop / Implement</p> <p>Decide on the design of the scheme.</p>		The project has been paused.
D2	Review regulatory settings for official conservation campaigns (OCCs)	2	<p>Review of settings for OCCs, including arrangements for sub-national OCCs, and nature and size of OCC start/stop triggers drawn from hydro risk curves.</p> <p>Why are we doing this project?</p> <p>To review the hydro risk curve start/stop triggers for OCCs, and consider whether the ability to call a sub-national OCC should be retained, and if so, in what circumstances a sub-national OCC should be called in preference to a nation-wide OCC.</p>	<p>Develop</p> <p>Publish decision paper.</p>		A consultation paper has been approved by the Board for publication in November 2018. A decision paper will be provided to the Board in March 2019.

Programme E: Operational efficiencies

Initiatives to increase the efficiency of electricity market operations. In particular, we look at refining processes set out in the Code and initiatives to improve market systems. This programme primarily aligns with our *ensure fit-for-purpose market services* strategy and also contributes to other strategies.

Code improvements include removing barriers to efficient operation and interaction, including via data exchange.

Market systems are provided by market operations service providers (MOSPs) and the system operator. We want these services to deliver effective market operation, increase market efficiency, and facilitate market development.

Ref#	Project name	Priority	Description	2018/19 MDC stage and target description	Status	Comment
E1	Dispatch Service Enhancement (DSE) implementation	2	<p>Amendments to the Code and the Approved Systems Document are needed to enable the system operator to implement its DSE project).</p> <p>These amendments allow the system operator to replace GENCO as the approved system for issuing dispatch instructions with two alternate communication protocols (ICCP and web services).</p> <p>Why are we doing this project?</p> <p>Improve efficiency and competition in the wholesale market by lowering entry and operational costs for dispatch and enabling potential new features. DSE is regarded as a key enabling project for settlement on real-time pricing, and for greater participation in dispatch by new technologies.</p>	<p>Implement</p> <p>Publish decision paper and final amendments to the Code and the Approved Systems Document.</p>		<p>The DSE design has been completed and the delivery phase is currently underway. Industry workshops are being held to support participants in planning their transition to the new dispatch mechanisms.</p>

Ref#	Project name	Priority	Description	2018/19 MDC stage and target description	Status	Comment
E2	Market enhancements omnibus	2	<p>This project includes a suite of non ‘sector-shaping’ market enhancement initiatives. This will include initiatives such as operational or fit-for-purpose reviews, the annual Code review program and enhancements to the current market.</p> <p>Why are we doing this project?</p> <p>These rapidly realisable initiatives are implemented by the Authority’s Market Operations team and ensure the smooth running of the market, without diverting resources from the Authority’ s top priority projects.</p>	<p>Implement</p> <p>At least 80% of market enhancements planned achieve <u>process</u> deliverables for the year.</p>		<p>Consultation on the first omnibus has commenced. Consultation will close in November 2018 and the Authority will begin considering submissions.</p>

Glossary and abbreviations

A detailed glossary is available at www.ea.govt.nz/glossary/

ACOT	Avoided cost of transmission. Part of distributed generation pricing principles.
AUFLS	Automatic under-frequency load shedding. Part of the reserve management system. This is being reviewed in our extended reserve project.
Authority	Electricity Authority.
Code	Electricity Industry Participation Code 2010.
Consumer	Any person who is supplied with electricity other than for resupply.
DDA	Default distribution agreement. The relationship between a distributor and retailers is set out in a distribution agreement (also known as a use-of-system agreement (UoSA)). The UoSA is important for retail competition and efficiency. We are considering whether to introduce a default distribution agreement to achieve the benefits from more standardisation of use-of-system agreements. The Authority considers that more standardisation of use-of-system agreements will enhance retail competition and lead to more efficient operation of the electricity industry.
DER	Distributed energy resources. DERs include traditional distributed generation, batteries, micro-grids and 'prosumer' situations
DR	Demand response.
Extended reserve	Extended reserve is a means by which to manage situations where the frequency of New Zealand's electrical system falls too far below 50 Hertz without the fall being arrested by normal existing reserve products. Extended reserve responds if the frequency continues to fall after the normal reserve products have responded to prevent such a drop in frequency that could lead to catastrophic power system failure. Currently the only mechanism available is AUFLS, which automatically disconnect blocks of load at specified frequency and time settings.
ICP	Installation control point. An ICP is a physical point of connection on a local network or an embedded network that the distributor nominates as the point at which a retailer will be deemed to supply electricity to a consumer. Each ICP is assigned an ICP identifier, which has the attributes set out in clauses 1 to 6 of Schedule 11.1 of the Code.
MOSP	Market operation service provider. For details see www.ea.govt.nz/operations/market-operation-service-providers/
Service providers	See MOSP. We contract third parties to manage the electricity system (system operator) and market services, as described in Part 3 of the Code.
SOI	Statement of Intent. Prepared in accordance with the Crown Entitles Act 2004.

SPE	Statement of Performance Expectations. Prepared in accordance with the Crown Entitles Act 2004.
UoSA	Use-of-system agreement. Agreements between distributors and retailers. We are working on a possible default agreement – see DDA.

END