

First Draft Electricity Authority Work Programme

2014/15

Version 2

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Introduction and purpose of this report

The Authority work programme is an internal programme of projects that it intends to progress during the coming financial year.

The Authority consulted on its proposed appropriations and work priorities from 10 September 2013 to 22 October 2013.

Project-specific comments from the consultation were addressed as part of development of this work programme. Refinement of the work programme has also considered more recent developments, including the identification of top priority projects by the Board as listed in the Statement of Intent (SOI) and Statement of Performance Expectations (SPE).

The work programme is an internal planning document. It provides indicative information about projects as at June 2014 and the progress intended over the next three years. This work programme represents a full commitment of Authority resources. Any changes to projects will therefore be carefully managed.

In the normal course of events it is anticipated that reprioritisation will be required during the year, for example as the information available about specific project develops, and new risks or issues come to the Authority's attention. The Authority will review and update its work programme on a regular basis, and intends to provide summary level reports on its progress on a quarterly basis.

Notes to the programme information that follows

These notes apply to all programmes outlined below:

- **Grouping into programmes**—projects are grouped into programmes. The programmes are arranged under the outputs as specified in the Authority's Statement of Intent (SOI) and Statement of Performance Expectations (SPE)
- **Initial assessment of programme size**—this provides indicative information only on the estimated Authority resource requirements for 2014/15. The assessment gives an indication of the quantum of overall levy cost and does not include costs to others. More detailed planning will take place to develop more accurate cost information.
- **Initial assessment of net public benefit**—this provides indicative information only on the perceived net public benefit for the project. High level cost-benefit assessment is carried out as part of project initiation. More detailed cost-benefit assessments are developed during appropriate project stages.
- **Draft project numbers**—(eg B9) refer to the project numbers in the published 2013/14 work programme. These will be updated based on the finalised 2014/15 work programme
- **Project stages**—the tables that follow include high level indicative information about the stages we expect the project to follow and the general timetable anticipated. These are estimates only at this stage and more detailed assessment and planning will take place as part of development of the work programme, due for publication in late June or early July 2014. Development of the work programme will include addressing feedback from this consultation.
- **Project priorities**—
 - **Priority 1:** Top priority projects are those listed in the Statement of Performance Expectations (SPE).
 - **Priority 2:** other key projects and priorities arising out of stakeholder feedback and subsequent Authority consideration of strategic priorities. These projects are considered to have potential to deliver substantial benefits in relation to the statutory objective.
 - **Priority 3:** projects with significant stakeholder interest and/or considered to have potential to deliver significant benefits in relation to the statutory objective. These projects are the most likely to be re-prioritised should the need arise during the financial year.
 - **Future:** All other potential projects that warrant further consideration have been recorded as future projects. These are projects that are considered to have potential merit but cannot be resourced within this fiscal period.
- **Project stages and deliverables**—we have set out the specific deliverables expected in the 2014/15 year. Out-years include only the project stage expected in that year. The specific deliverables will be set out in next year's work programme.

Market development

Programme: Competition in retail markets

Purpose

Develop initiatives to promote retail competition by providing consumers with information to make choices between retailers and by developing initiatives to allow participants to better manage price risk. There is a related programme: **Improving competition and efficiency in the wholesale energy and ancillary services markets** focussing on supply-side pro-competition initiatives that will enhance competition in the retail market.

Desired impacts

Greater consumer participation

- Greater consumer participation with more engaged consumers that have a greater willingness to shop around for their electricity service, and reduced barriers to entry, exit and expansion (and innovation) in retail markets.
- Improved electricity price risk management will incentivise consumers to take responsibility for their own risk management and better manage their resources.

Reducing barriers

- Improving the options available to retailers to manage their spot price risk will reduce barriers to entry in the retail market, and contribute to more robust competition between retailers.
- More stable prudential security requirements and improved integration between hedge instruments and the provision of prudential security should reduce a barrier to retail entry and expansion, and allow direct connect consumers to compete more effectively.

Providing efficient price signals

- An active market in exchange traded products (such as ASX derivatives) provides a transparent and robust forward price curve. This information assists parties to make informed risk management and investment decisions.

Promoting flexibility and resilience

- Ensuring that the electricity market arrangements keep pace with the evolution of the hedge market will promote further development of the risk management products.

Initial assessment of size: High

Initial assessment of net public benefit: High

Priority 1 = projects listed in the SPE	2014/15: specific deliverables	2015/16: project stage	2016/17: project stage
(C8) Retail data project – Improving access to retail data to enhance price comparison, product and service innovation, and retail market analysis and monitoring. This project has four parts: • enable collection of data through standardisation of formats (including Code amendment if required) • integration of existing market datasets (may include additional Registry fields) • development of a national retail price database for electricity and gas • enhanced retail market analysis, metrics and monitoring. A key outcome will be to provide consumers and the energy services industry with access to data.	Design / Implement	Implement	Review
(B9) Consumer participation programmes – The <i>What's My Number</i> (WMN) campaign is the primary consumer switching fund (CSF) initiative. It promotes the benefits of comparing and switching retailers. The appropriation for the facilitating and promoting consumer switching ends on 30 April 2014. The Authority is assessing the costs and benefits of continuing the WMN campaign and alternatives for promoting to consumers the benefits of comparing and switching retailers. More information about the CSF and WMN campaign is available at: http://www.ea.govt.nz/consumer/csf/.	Design / Implement	Implement	Implement
Win-backs and saves – Investigate the effects on competition of saves and win backs and assess whether any intervention is required.	Pending investigation		

Priority 2 projects	2014/15: specific deliverables	2015/16: project stage	2016/17: project stage
(D9) Review of retail competition on embedded and customer networks – This project is to examine barriers to retail competition on embedded and customer networks. RAG work plan.	Design / Implement	Ex-post review	–

Priority 2 projects	2014/15: specific deliverables	2015/16: project stage	2016/17: project stage
(C18) Review of barriers to retail competition in MUOSA – model use-of-system agreements were published in September 2012 with expectations that these MUOSAs would lead to significantly enhanced levels of commercial standardisation in agreements negotiated between retailers and distributors. We committed to examining the extent of alignment or departure from the MUOSA. This project is to examine whether variations away from the MUOSA adversely affect retail competition.	Ex-post review	–	–
(D2) Research project: effects of low fixed charges – This project is to examine the effects on efficiency and competition of the Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004 and to identify other means of achieving the objectives of the regulations. This project is under section 16(1) of the Electricity Industry Act 2010 which enables the Authority to carry out and make publicly available reviews, studies, and inquiries into any matter relating to the electricity industry. RAG work plan.	Initial review	Report to Minister	–
(C17) Domestic contracting arrangements – This project is considering the potential for improving the arrangements for the consumer/distributor/retailer relationship, including for medically dependent and vulnerable consumers. RAG work plan.	Implement	Ex-post review	–
(E2) Research project: efficiency of distribution company arrangements – This project is under section 16(1) of the Electricity Industry Act 2010 to undertake industry and market monitoring, and carry out and make publicly available reviews, studies, and inquiries into any matter relating to the electricity industry.	Investigation / CBA	TBD	TBD
(B1) Settlement and prudential security review – Improvements to clearing and settlement parts of the Code to improve efficiency and competition. Information paper on the exit of defaulting direct connect participants.	Design / Implement	Implement	Ex-post review
(C2) Wholesale Market Information – Initiatives to improve access to wholesale market information, with a particular emphasis on information that influences the forward curve for electricity. - Facilitated disclosure for fuel quantities - Review of clause 13.2 changes Builds on initiatives recommended by WAG in 2012/13.	Design	Implement	Ex-post review

Priority 2 projects	2014/15: specific deliverables	2015/16: project stage	2016/17: project stage
Barriers to group switching -	Design/Implement		

Priority 3 projects	2014/15: specific deliverables	2015/16: project stage	2016/17: project stage

Future projects	2014/15: NA	2015/16: project stage	2016/17: project stage

Programme: Competition in wholesale markets including ancillary services

Purpose

Improve the process for offer and dispatch in the wholesale energy (spot), instantaneous reserves, frequency keeping, extended reserves and potentially other ancillary service markets.

Desired impacts

Reducing barriers & facilitating consumer participation

- Introducing national markets for frequency and instantaneous reserves improves participation, especially for services in the South island.
- Removing technology specific references in the Code removes a barrier for increased demand-side participation in the provision of ancillary services.

Providing efficient price signals

- Introducing market concepts to a broader range of ancillary services (such as extended reserves) improves the efficiency of the resource allocation between these different services (for example allocation of demand response to either extended reserves or instantaneous reserves).
- Market innovations such as dispatchable demand improve the efficiency of price signals by allowing bids by purchasers to set final prices, an outcome that may often be lower cost than generation offers or forced load curtailment.

Promoting flexibility and resilience

- Introducing national markets for frequency and reserves allows a more diverse range of parties to provide these services.
- Improving the process for offer and dispatch, such as reducing the gate closure period, provides more flexibility for generators and purchasers to adjust their offers and bids in response to changing market conditions (such as varying wind generation output).

Increasing compliance

- Further development of the offer and dispatch Code to take account of the different characteristics of demand and generation (such as co-generation, wind generation, base load generation, and industrial load) leads to improved compliance.

Initial assessment of size: High

Initial assessment of net public benefit: High

Priority 1 = projects listed in the SPE	2014/15: specific deliverables	2015/16: project stage	2016/17: project stage
(D1) Hedge Market Development – Monitoring industry progress and developing further market facilitation initiatives to improve the hedge market. WAG work plan.	Design / Implement	Implement	Ex-post review
(B3) National market for frequency keeping – A national market for frequency keeping to enhance wholesale market competition. WAG work plan.	Design / Implement	Implement	Implement

Priority 1 = projects listed in the SPE	2014/15: specific deliverables	2015/16: project stage	2016/17: project stage
(B4) National market for instantaneous reserves – Provide for instantaneous reserves national market to enhance wholesale market competition. Update market design to enable the transfer of reserves from one island to the other via the HVDC.	Design/Implement	Implement	Implement

Priority 2 projects	2014/15: specific deliverables	2015/16: project stage	2016/17: project stage
(D4) Under-frequency management – Investigation into instantaneous reserve arrangements. WAG work plan.	Design / Implement	Implement	Implement
(D8) Offer and dispatch – Review of gate closure.	Design / Implement	Implement	Implement
Joint Electricity Authority/System Operator Demand Response Paper	Design	TBD	TBD
Inter-island instantaneous reserve sharing - A System Operator led initiative to utilise some of the increased capabilities of the new HVDC control system to reduce IR procurement costs in advance of the full national IR market implementation.	Implement	Ex-post review	

Priority 3 projects	2014/15: specific deliverables	2015/16: project stage	2016/17: project stage
Offer and Dispatch Bid/Offer revisions - Modify the Code provisions in Part13 relating to revisions of bids and offers inside gate closure to reduce unnecessary compliance overhead, ensure best information is available to the market, and improve regulatory best-practice performance of the Code.	Design/Implement	Ex-post review	
Offer and Dispatch Industrial co-generation - Modify the Code and market systems to improve efficiency and reduce barriers to effective market participation by industrial co-generators.	Design/Implement	Ex-post review	

Future projects	2014/15: NA	2015/16: project stage	2016/17: project stage
Offer and Dispatch Intermittent generation offers – Modify the Code to specify the conditions to provide for intermittent generators to offer their output at prices above 0.01c/kWh.	Design	Implement	Implement
(E8) Review of wholesale market trading arrangements (Part 13) – Review the code relating to trading, including information and information disclosure, spot market (energy and instantaneous reserves), scheduling, dispatch and pricing, and FTR trading.	Design	Design	Implement

Programme: Efficient pricing

Purpose

Improve the efficiency of spot market pricing in the wholesale market and develop appropriate arrangements for allocating the costs of transmission and distribution services.

Desired impacts

Reducing barriers to entry & providing efficient price signals

- More closely aligning forecast and settlement prices removes a significant barrier to demand-side participation.
- Addressing generator offer behaviour during pivotal supplier situations will address a source of price risk inhibiting retail competition.
- Improving confidence in forecast prices encourages parties to react to scarcity of supply situations.
- Improving the allocation of ancillary service costs and plant commissioning costs will incentivise the more efficient use of resources.

Facilitating consumer participation

- More closely aligning forecast and settlement prices will encourage more consumers to become involved in demand-side participation.

More efficient transmission and distribution pricing

- The major expected benefits of the programme are more efficient price signals and improved investment decisions. The programme will give the expected benefits by examining market facilitation and Code amendment proposals that will result in more efficient transmission and distribution cost allocation methodologies.

Initial assessment of size: High

Initial assessment of net public benefit: High

Priority 1 = projects listed in the SPE	2014/15: specific deliverables	2015/16: project stage	2016/17: project stage
(B10) Transmission pricing methodology (TPM) review – The Authority is developing a proposal for a new TPM that promotes overall efficiency of the electricity industry. We are seeking feedback on details of the proposal through a series of working papers and intend consulting on a revised proposal in mid-2014. More information about the TPM project and our functions is available at: http://www.ea.govt.nz/industry/transmission/ .	Design	Design	Implement

Priority 2 projects	2014/15: specific deliverables	2015/16: project stage	2016/17: project stage
(B2) Pivotal pricing project – Consider options, and develop if appropriate, initiatives to bring more confidence that prices are efficient during pivotal generation situations. WAG work plan.	Design / Implement	Ex-post review	–
(D6) Improvements to existing spot pricing process – Review the need for changes to the existing spot pricing process, potentially including: • infeasibility resolution improvement process • improved modelling of constraints in the system operator' scheduling, pricing and dispatch model (SPD) • wind generation inputs into final pricing.	Design / Implement (work dependent upon progress of project B7)	Design / Implement	Design / Implement
(D7) Improved market modelling of losses – Improve the representation of losses in the scheduling, pricing and dispatch model (SPD) – provides for a lower cost market solution.	Design/Implement		Ex-post review
(C6) Distribution pricing review – Distributors are expected to align their pricing methodologies with voluntary pricing principles introduced in October 2010 to promote efficient distribution pricing and retail competition. The review is examining the extent of alignment and whether the Authority should take an alternative approach. More information about the distribution pricing project and our functions is available at: http://www.ea.govt.nz/our-work/programmes/transmission-work/principles-or-model-approaches-to-distribution-pricing/ .	Design	Design	Design
(E1) Review of Part 6 (pricing principles) – A review of the pricing principles for distributed generation in Part 6 of the Code to ensure consistency and alignment with distribution pricing principles. This project may be incorporated into further work arising from the distribution pricing project (C6 above).	May be incorporated in to C6		
(E11) Review of Part 12 (Transport) – Review of Part 12 of the Code to ensure it is fit for purpose. Includes benchmark agreement, connection Code, and grid reliability standards.	Investigation / CBA	Design	Implement
Review of features of the wholesale electricity spot market - This review examines features of New Zealand's wholesale electricity spot market to determine which (if any) should be altered to meet the challenges in the Authority's strategic directions document.	Design	TBD	TBD

Priority 3 projects	2014/15: specific deliverables	2015/16: project stage	2016/17: project stage
(E33) Plant commissioning Code – review the Code provisions relating to the commissioning of new plant (any secondary risk) including the allocation of any additional costs			

Future projects	2014/15: NA	2015/16: project stage	2016/17: project stage
(E10) Instantaneous reserve event charge and cost allocation review – To improve the efficiency in allocation of reserve costs.		Design	Implement
(E18) Frequency keeping cost allocation review – To improve the efficiency in allocation of frequency keeping costs.		Design	Implement

Programme: Reliability

Purpose

A range of initiatives to improve the resilience (quality and reliability) of the national electricity system.

Desired impacts

Promoting flexibility and resilience

- Ensuring that key asset performance obligations and quality standards are fit for purpose given the changing mix of generation (such as increasing levels of wind and geothermal generation).
- Review and implement changes to improve the performance of extended reserves (AUFLS).

Fit for purpose market services

Improve market operation through appropriate system reliability and resilience.

Initial assessment of size

Medium

Initial assessment of net public benefit

High

Priority 1 = projects listed in the SPE	2014/15: specific deliverables	2015/16: project stage	2016/17: project stage

Priority 2 projects	2014/15: specific deliverables	2015/16: project stage	2016/17: project stage
(C20) Asset owner performance obligations (AOPOs): fault ride-through – Review of low voltage fault ride-through AOPOs to determine if they are fit for purpose with the changing generation mix (ie significant wind generation).	Design/Implement	–	–
(C22) Frequency regulation: review normal frequency band and AOPOs – Review of the frequency keeping Hz band, MW band and related AOPO's to determine if fit for purpose. Further system operator investigation may be required - implications for software.	Design / Implement	–	–
(D3) Under-frequency management including AUFLS technical review – Review of all under frequency management tools, including verifying modelling formats. Overall event management comment: Some components i.e. AUFLS block sizing and trigger points, will be progressed in conjunction with the AUFLS review work carried out by the system operator. Includes system operator consideration of dispensations and equivalence with respect to AUFLS exemptions.	Design / Implement	Implement	–

Priority 2 projects	2014/15: specific deliverables	2015/16: project stage	2016/17: project stage
(B8) Efficient procurement of extended reserves – Investigate options for the most efficient procurement of load for extended reserves (AUFLS).	Design / Implement	Implement	Implement

Priority 3 projects	2014/15: specific deliverables	2015/16: project stage	2016/17: project stage

Future projects	2014/15: NA	2015/16: project stage	2016/17: project stage
Normal frequency PPOs – Review of the SO's PPOs to maintain frequency in the m=normal band.		Design	Implement
Efficient cost of reliability			

Monitoring, information and education

In addition to the business as usual monitoring, investigations and reports, the Authority is considering the following programme of work:

Programme: Provision of models and data

Purpose

Improve the transparency of industry processes by provision of data and models that enable replication of pricing calculation, counterfactual analysis, and rapid assessment of structure, conduct, and performance of the various markets that make up the electricity industry.

Desired impacts

Greater confidence in the industry arrangements, reduction of barriers to entry relating to difficulty obtaining information and undertaking technical analysis, a degree of self-censorship in regard to conduct which will be widely observable, better decision-making and consultation on Code changes. The electricity markets are highly structured technocratic creations. Provision of information and models which lift the lid on these arrangements ought to build confidence and reduce concentration of technical expertise and intellectual property that works against competition in the electricity markets, including markets for technical services.

Initial assessment of size: Medium

Initial assessment of net public benefit: High

Priority 1 = projects listed in the SPE	2014/15: specific deliverables	2015/16: project stage	2016/17: project stage

Priority 2 projects	2014/15: specific deliverables	2015/16: project stage	2016/17: project stage

Priority 3 projects	2014/15: specific deliverables	2015/16: project stage	2016/17: project stage

Future projects	2014/15: NA	2015/16: project stage	2016/17: project stage

Operation of the electricity system and markets

In addition to the business as usual work in relation to operation of the electricity system and markets, the Authority is considering the following programmes of work:

Programme: Fit-for-purpose market services

Purpose

Market operations service providers (MOSPs) and the system operator provide systems and services that ensure effective market operation, increase market efficiency and facilitate market development.

Desired impacts

Systems and services that:

- Increase market efficiency through enabling interoperability of participant systems, adapting to changes in IT technology and automating transaction processes.
- Ensure effective market operation through appropriate system reliability and resilience.
- Facilitate market development through the use of flexible, scalable systems.

Initial assessment of size:

Medium

Initial assessment of net public benefit:

Medium

Priority 1 = projects listed in the SPE	2014/15: specific deliverables	2015/16: project stage	2016/17: project stage

Priority 2 projects	2014/15: specific deliverables	2015/16: project stage	2016/17: project stage

Priority 3 projects	2014/15: specific deliverables	2015/16: project stage	2016/17: project stage

Future projects	2014/15: NA	2015/16: project stage	2016/17: project stage

Programme: More efficient market operations

Purpose

Increasing the efficiency of electricity market operations through refining processes proscribed in the Code.

Desired impacts

Reduced costs for industry participants to complete market transactions and meet Code obligations, through refinement of operational processes.

Initial assessment of size: Low

Initial assessment of net public benefit: Medium

Priority 1 = projects listed in the SPE	2014/15: specific deliverables	2015/16: project stage	2016/17: project stage

Priority 2 projects	2014/15: specific deliverables	2015/16: project stage	2016/17: project stage

Priority 3 projects	2014/15: specific deliverables	2015/16: project stage	2016/17: project stage

Future projects	2014/15: NA	2015/16: project stage	2016/17: project stage

Compliance

No development programme identified at this stage. Ongoing business as usual activities continue.

Draft