



Energy Efficiency and
Conservation Authority
Te Tari Tiaki Pūngao



2013/14 Appropriations and Work Priorities, and EECA Work Programme

Consultation Paper

Published on: 24 September 2012

Submissions close: 5 pm 2 November 2012

Glossary of abbreviations and terms

Act	Electricity Industry Act 2010	NZES	New Zealand Energy Strategy
AGC	Automatic governance control system	Outcome	Means a state or condition of society, the economy or the environment and includes a change in that state or condition. (Definition from section 2(1) of the Public Finance Act 1989.)
AMI	Advanced metering infrastructure	Outputs	Means the goods or services that are supplied by a Crown entity; but does not include goods and services that are produced for purchase or consumption solely within the Crown entity group. (Definition from section 136(1) of the Crown Entities Act 2004.)
AOPOs	Asset owner performance obligations	PCC	Public conservation campaign
AUFLS	Automatic under-frequency load shedding	RAG	Retail Advisory Group
Authority	Electricity Authority	Regulations	Electricity Industry (Enforcement) Regulations 2010
CAB	Citizens Advice Bureau	RPS	Residual profile shape
Code	Electricity Industry Participation Code 2010	SME	Small and medium-size enterprise
CPI	Consumer price index	SO	System operator
CRE	Competition, reliability and efficiency (components of the Authority's statutory objective)	SOI	Statement of Intent
DD	Dispatchable demand	SOSPA	System operator service provider agreement
DSBF	Demand side bidding and forecasting	SPD	Scheduling, pricing and dispatch model
EECA	Energy Efficiency and Conservation Authority	SRC	Security and Reliability Council
EIEP	Electronic Information Exchange Protocol	TPAG	Transmission Pricing Advisory Group
EMI	Electricity Market Information software	UTS	Undesirable trading situation
FK	Frequency keeping	VoLL	Value of lost load
FTR	Financial transmission right	WAG	Wholesale Advisory Group
IL	Interruptible load	WITS	Wholesale information and trading system
Impact	The contribution made to an outcome by a specified set of outputs, or actions, or both. (Definition from section 2(1) of the Public Finance Act 1989.)		
MBIE	Ministry of Business, Innovation and Employment		
MEP	Metering equipment provider		
Minister	Minister of Energy and Resources		
MUoSA	Model use of systems agreement		
NZEECS	New Zealand Energy Efficiency and Conservation Strategy		

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1. Introduction and purpose

- 1.1.1 Submissions are sought on the proposed 2013/14 annual appropriations for the Electricity Authority (Authority), and those activities of the Energy Efficiency and Conservation Authority (EECA) and Consumer Affairs that are funded by the levy on industry participants. The appropriation consultation period commences on 24 September 2012 and submissions are due by 2 November 2012.
- 1.1.2 Your input is requested as part of the process of the Authority and EECA in requesting funding from responsible ministers early in 2013. Please refer to **appendix A** for the legal context for this consultation.
- 1.1.3 Your submission(s) should be sent individually to each of the Authority or EECA depending which appropriations and work priorities on which you are commenting. Please refer to **appendix B** for instructions on making a submission and for the timetable.
- 1.1.4 In addition to appropriations information, this consultation paper includes the following appendices:
- **Appendix C** provides information about the Authority's strategic priorities and outcomes;
 - **Appendix D** provides information about the Authority's outputs;
 - **Appendix E** includes information about proposed Authority work priorities for 2013–2016; and
 - **Appendix F** provides additional information about EECA's levy-funded electricity efficiency programme priorities for 2013/14.
- 1.1.5 It should be noted that:
- the Authority and EECA will use input from this consultation to develop their own reports on proposed appropriations to responsible Ministers; and
 - the results will be reflected in the Authority and EECA Statements of Intent (SOI) to be published on the day after the Government's Budget is tabled in Parliament in 2013 (usually mid-May).

2. Appropriations proposal

2.1 Summary

2.1.1 Table 1 sets out the appropriations being sought by the Authority, EECA, and Consumer Affairs.

Table 1: Appropriations proposal

Electricity Authority	(\$ million)		
	2011/12 actual	2012/13 appropriations	2013/14 appropriations proposal
Electricity industry governance and market operations appropriation			
Subtotal: system operator costs*	32.310	35.274	38.137
Subtotal: other service providers*	8.023	8.407	10.284
Subtotal: Authority operations*	19.450	20.225	20.225
Total: Electricity industry governance and market operations appropriation	59.783	63.906	68.646
Security management appropriation	n/a	6.000 over five years (2012/13 to 2016/17)	
Promoting and facilitating customer switching appropriation	3.409	3.500	2.092
Electricity litigation fund appropriation**	0.333	0.444	0.444
Consumer Affairs (part of the Ministry of Business, Innovation and Employment):			
	(\$ million)		
	2011/12 actual	2012/13 appropriations	2013/14 appropriations proposal
Promoting and facilitating customer switching	0.700	1.250	1.052
Energy Efficiency and Conservation Authority (EECA)			
	(\$ million)		
	2011/12 actual	2012/13 appropriations	2013/14 appropriations proposal
Electricity efficiency	12.736	13.000	13.000

Notes to table 1:

* See table 2 for a more detailed breakdown

* The Electricity litigation fund appropriation is to provide funding to ensure that the Authority is able to participate in litigation effectively and without delay. This is a Crown expense appropriation, which is drawn on only for major litigation. There is no output class for this appropriation.

2.1.2 Key points to note in the proposed appropriations are:

- The Authority's **electricity industry governance and market operations** appropriation is increased by \$4.740 million. Major components are:
 - approximately \$2.863 million to fund capital related system operator costs and a contractual consumer price index (CPI) adjustment in the system operator service provider agreement (SOSPA);

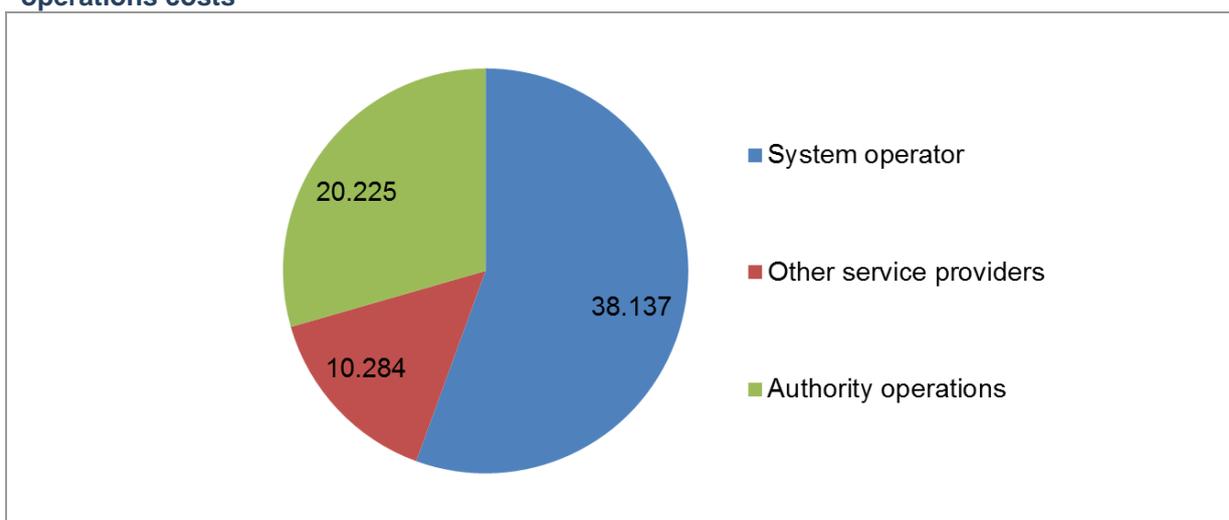
- approximately \$1.199 million in service provider costs associated with the new FTR manager service provider; and
- approximately \$0.560 million in depreciation and amortisation costs associated with the implementation of the FTR Manager, and Code amendments relating to metering (Part 10 of the Code), scarcity pricing, and dispatchable demand.
- Electricity Authority operating costs will be held at current levels and inflationary costs will be addressed through cost saving measures. In line with the Authority seeking to build its internal capability, it is forecast that it will spend more on staff and less on external consultants in the coming years.
- The EECA electricity efficiency appropriation remains at the same level as 2012/13.

2.2 Breakdown of electricity industry governance and market operations costs

2.2.1 The **electricity industry governance and market operations appropriation** covers the Authority’s costs of oversight of the operation and governance of New Zealand’s electricity market under the Act, Code, and regulations. This covers the Authority’s functions under the act and includes Board members’ costs, costs for the Security and Reliability Council and advisory groups, and supporting the Rulings Panel.¹

2.2.2 While a detailed budget has not yet been prepared for the 2013/14 year, Figure 1 shows the major categories for 2013/14 estimated costs within the **electricity industry governance and market operations** appropriation. Table 2 provides a more detailed indication of the expected breakdown of major costs.

Figure 1: Breakdown of forecast 2013/14 electricity industry governance and market operations costs



¹ See the 2012–2015 Statement of Intent for details: <http://www.ea.govt.nz/about-us/documents-publications/soi/>

Table 2: Electricity industry governance and market operations appropriation: cost breakdown

	All figures in \$million		
	Actual 2011/12	Budget 2012/13	Forecast 2013/14
System operator—operating expenses	23.189	23.541	24.089
System operator—capital-related expenses	9.121	11.733	14.048
Sub total—System operator	32.310	35.274	38.137
Service provider—clearing manager	1.478	1.501	2.063
Service provider—wholesale information and trading system (WITS)	1.551	1.355	1.360
Service provider—pricing manager	1.666	1.606	1.620
Service provider—reconciliation manager	1.339	1.124	1.151
Service provider—registry	0.459	0.410	0.449
Service provider—FTR manager	-	0.164	0.834
Depreciation/amortisation on hardware & software operated by service providers	1.530	2.247	2.807
Sub total—Other service providers	8.023	8.407	10.284
Authority operations—external advice	7.772	8.046	6.913
Authority operations—personnel	7.966	8.543	9.524
Authority operations—other operating costs	3.712	3.636	3.788
Sub total—Authority operations	19.450	20.225	20.225
Total—Electricity industry governance and market operations appropriation	59.783	63.906	68.646

2.3 System operator capital-related costs

The Authority is facing significant and ongoing increases in system operator costs, driven mainly by capital-related costs. These costs are passed on to levy payers. The Authority considers it is important that there is greater disclosure of information to the levy payers of the nature of the work carried out by Transpower as the monopoly provider of system operator services.

2.3.1 The Authority is looking carefully at a range of issues relating to the SOSPA, its capital arrangements and the proposed capital expenditure, including:

- (a) the magnitude of system operator costs including the costs arising from capital investment;
- (b) uncertainty in the amount and timing of capital costs (these have varied from the capital expenditure schedule historically, and forward projections from the system operator can change significantly as the details of specific projects on the schedule are finalised);
- (c) the transparency of system operator costs to levy payers; and
- (d) limits to the Authority's ability to influence system operator costs under the current statutory and SOSPA arrangements (the Authority is looking at system operations arrangements and the SOSPA in the 2012/13 financial year).²

² See projects C15 and D2 in the Authority's published work programme: <http://www.ea.govt.nz/about-us/documents-publications/work-programme/>

- 2.3.2 Earlier this year the Authority asked Transpower to seek the views of levy payers on its draft capital expenditure plan prior to the Authority including a request for increased costs in this area in the 2013/14 appropriations proposal. This engagement with levy payers has yet to take place.
- 2.3.3 The Authority therefore intends to develop an information paper to set out the system operator costs for 2013/14 and outyears. This information paper will be published as soon as possible to provide increased transparency to the appropriations and levy setting process. Relevant information will be sought from Transpower for the preparation of the paper.
- 2.3.4 In the interim the Authority has included the system operator capital-related costs under 'system operator—operating expenses' in table 2 based on the three-year capital plan for 1 July 2011 to 30 June 2014. This capital plan represents the costs to which the Authority is formally committed.³ Beyond that timeframe the system operator's capital budgets are indicative only and no binding commitment is in place.

2.4 Security management appropriation

- 2.4.1 The **security management** appropriation was established in the 2011 Budget. The appropriation covers the system operator responsibilities for emergency management, including monitoring security levels and taking progressively escalating actions, if necessary.
- 2.4.2 Routine system operator activity, including security monitoring, is provided for in the **electricity governance and market operations** appropriation. However, funding required in the event that emergency actions are required, such as planning and initiating a public savings campaign, are funded through the **security management** appropriation.
- 2.4.3 In the normal course of events it is not expected that this appropriation would incur costs. Therefore it will not be included in indicative levy rates that are used for invoicing during a year.

2.5 Promoting and facilitating customer switching

- 2.5.1 The proposal for funding for this appropriation is unchanged from that approved by Cabinet as a part of the 2010 electricity reforms. A \$15 million fund was established covering the period from November 2010 to April 2014 to promote customer switching. Of this:
- \$4.5 million is administered by the Consumer Affairs (part of MBIE) (in a multi-year appropriation through Vote Consumer Affairs for upgrading and promoting the Powerswitch website; and

³ Schedule 4 of the SOSPA sets out the capital expenditure arrangements. The current 'base fee capital component' is based on the existing capital base and planned capital expenditure for the three year period commencing 1 July 2011 (clause 6).

- \$10.5 million is administered by the Authority to encourage consumers to compare the benefits of switching retailers.

What's My Number

2.5.2 In 2013/14 the Authority plans to continue the successful What's My Number campaign launched on 29 May 2011. Planning is currently underway around programme design and delivery for the 2013 winter.

Other switching programmes

2.5.3 Two other programmes to fund switching facilitators and online tools to promote and facilitate switching got underway in 2011/12 (see table 3).

2.5.4 The 2012 campaign has expanded to provide tailored and specific support for small to medium-size enterprise owners. The new tool launched in late August 2012.

2.5.5 The Authority intends to continue with these programmes for the duration of the programme (to 30 April 2014).

Table 3: Programmes to facilitate switching and provide online switching tools

Party and role	Status at 30 September 2011
Small to medium enterprise price comparison website provider: Switchme Limited	Switchme Limited has been contracted to build and supply an online business comparison tool.
Switching facilitator: Citizens Advice Bureau	The Citizens Advice Bureau has been contracted to assist clients to compare and switch electricity retailers, by explaining to them the benefits of comparing and switching electricity retailers and, if required, taking them through the What's My Number and Powerswitch websites.
Switching facilitator: Vendor Support Sales Limited	Vendor Support Sales Limited has been engaged to train nominated budget advice centres on how to assist their clients to compare and switch electricity retailers.

2.6 Electricity efficiency

2.6.1 Section 128(3)(c) of the Act lists, among those costs that should be met fully out of the levy, a portion of the costs of EECA in performing its functions and exercising its powers and duties under the Energy Efficiency and Conservation Act 2000 in relation to the encouragement, promotion, and support of electricity efficiency, where the size of the portion to be met by levies under this Act is determined by the Minister.

2.6.2 EECA proposes to request funding of \$13 million for electricity efficiency programmes aimed at improving the security of the electricity system, deferring investment in supply-side assets and achieving the Government's targets in the *New Zealand Energy Efficiency and Conservation Strategy* (NZECS) and the *New Zealand Energy Strategy* (NZES). More detail on EECA's priorities, targeted outcomes and their estimated economic value can be found in **appendix F** of this paper.

2.6.3 Projects eligible for funding will meet the underlying core principles:

- (a) Net economic value must be created.
- (b) The 10 year total cost of the intervention must be less than the cost of the electricity supply side alternative.

3. Indicative levy rates

3.1.1 The Crown is reimbursed for the cost of the Authority, Consumer Affairs (Powerswitch), and the EECA electricity efficiency appropriation by way of a levy on electricity industry participants in accordance with the Electricity Industry (Levy of Industry Participants) Regulations 2010. The levy is collected by the Authority on behalf of the Crown.

3.1.2 Prior to the start of the financial year the levy rates are set for invoicing based on the information available at that time. The final levy reconciliation, after the end of the financial year, takes account of any variations between levies collected and actual expenditure.

3.1.3 The levy rates in table 3 are based on the proposed appropriations outlined above, and an estimate of the 2013/14 Authority budget. They are indicative of the rates that will be used for invoicing in 2013/14. Actual invoicing levy rates will be determined after the 2013/14 budget has been finalised.

Table 3: 2013/14 Indicative levy rates

Participant Class	Common Quality	Market	Registry & Consumer	Supply Security	Transmission	Electricity Efficiency	Customer Switching	Other Activities
<i>\$ per unit (MWh / ICP's)</i>								
Generators	0.1699	0.4391						0.0480
Purchasers	0.1705	0.4408		0.0086		0.3101		0.0482
Retailers			0.8962				1.5602	
Distributors (incl Transpower)	0.0949							0.0268
Distributors (excl Transpower)			0.8965					
Transpower					0.0167			

2012/13 Invoiced levy rates

Participant Class	Common Quality	Market	Registry & Consumer	Supply Security	Transmission	Electricity Efficiency	Customer Switching	Other Activities
<i>\$ per unit (MWh / ICP's)</i>								
Generators	0.1603	0.4027						0.0505
Purchasers	0.1603	0.4027		0.0095		0.3724		0.0505
Retailers			0.8756				2.4823	
Distributors (incl Transpower)	0.0894							0.0282
Distributors (excl Transpower)			0.8758					
Transpower					0.0146			

Questions relating to Authority appropriations

Comments are invited on:

1. The proposed Electricity Authority appropriations as set out in table 1.
2. The proposed changes to Authority appropriations.
3. Other key matters relating to the Authority's overall appropriations that you consider the Authority should address in the 2013–2016 timeframe.

Appendix A Legal context for this consultation

A.1 Section 129 of the Electricity Industry Act 2010 (Act) requires the Authority and EECA to consult on proposed appropriations for the coming year. Section 129 states:

129 Consultation about request for appropriation

- (1) The Authority and the Energy Efficiency and Conservation Authority must, before submitting a request to the Minister seeking an appropriation of public money for the following year, or any change to an appropriation for the current year, that relates to costs that are intended to be recovered by way of levies under section 128, consult about that request with—
 - (a) those industry participants who are liable to pay a levy under that section; and
 - (b) any other representatives of persons whom the Authority believes to be significantly affected by a levy.
- (2) Each Authority must, at the time when the request is submitted, report to the Minister on the outcome of that consultation.
- (3) The Ministry must consult in a like manner in respect of a levy to recover costs referred to in section 128(3)(g).
- (4) This section applies to requests in respect of the financial year beginning 1 July 2011 and later financial years.

A.2 This consultation paper sets out appropriation proposals and the proposed work priorities for the full 2013/14 financial year. It covers:

- the Authority's proposals;
- EECA's proposals for levy-funded electricity efficiency programmes; and
- the customer switching fund (Authority and Consumer Affairs appropriations)⁴.

⁴ Note that although the Consumer Affairs is not statutorily required to be included in the consultation process, the appropriation is included as it covers some outputs associated with the Customer Switching Fund, and inclusion is necessary to cover all appropriations funded by the levy.

Appendix B Making submissions and timetable

- B.1 Submissions should be made separately to the Electricity Authority or EECA relating to the appropriations each agency administers, and the more detailed information provided about proposed work programmes.

Making submissions to the Authority

- B.2 Submissions about Authority appropriations should be emailed to submissions@ea.govt.nz with **Consultation paper—2013/14 appropriations** in the subject line.
- B.3 Comments are also invited on the Authority strategy (appendix C), outputs (appendix D), and draft work priorities for 2013–2016 (appendix E).
- B.4 The preferred format of submissions is electronic, in Microsoft Word if possible. It is not necessary to send hard copies of submissions sent electronically. A suggested submission format has been made available on the Authority website.
- B.5 Submissions should be received by 5pm on 2 November 2012. Please note that late submissions will not be considered.
- B.6 If you do not wish to send your submission electronically, you should send one hard copy of the submission to the address below.

<i>POST:</i> Submissions Electricity Authority PO Box 10041 Wellington 6143	<i>COURIER:</i> Submissions Electricity Authority Level 7, ASB Bank Tower 2 Hunter Street Wellington	<i>FAX:</i> 04-460 8879
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- B.7 Your submission is likely to be made available to the general public on the Authority's website. Submitters should indicate any documents attached, in support of the submission, in a covering letter and clearly indicate any information that is provided to the Authority on a confidential basis. However, all information provided to the Authority is subject to the Official Information Act 1982.
- B.8 Information about the Authority and current projects are on the Authority's website at www.ea.govt.nz
- B.9 If you have questions about this consultation paper, please contact Androula Dometakis, General Manager Corporate Services, on (04) 460 8869 or androula.dometakis@ea.govt.nz

Making submissions to EECA

- B.10 Submissions should be made to EECA on the electricity efficiency appropriation and the proposed electricity efficiency work programme (appendix F).
- B.11 Submissions should be sent to: levyconsultation@eeca.govt.nz
- B.12 Submissions should be received 5pm on 2 November 2012. Please note that late submissions will not be considered.
- B.13 If you do not wish to send your submission electronically, you should send one hard copy of the submission to the address below.

<i>POST:</i> EECA PO Box 388 Wellington 6140	<i>COURIER:</i> EECA Level 8, 44 The Terrace Wellington	<i>FAX:</i> 04 499 5330
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- B.14 Your submission will be published on EECA's website. Submitters should indicate any information that is provided to EECA on a confidential basis. All information provided to EECA is subject to the Official Information Act 1982.
- B.15 Information about EECA and current projects may be found on EECA's website: www.eeca.govt.nz
- B.16 If you have questions about the EECA component of this consultation paper, please contact Mike Candy, Senior Analyst - Statutory Documents, on (04) 470 2200 or mike.candy@eeca.govt.nz

Consumer Affairs

- B.17 Formal consultation is not required by Consumer Affairs (part of the Ministry of Business, Innovation and Employment).
- B.18 However, if you have questions about Powerswitch, please contact Jarred Rendle, Acting Manager, Consumer Capability and Information, Consumer Affairs, Ministry of Business, Innovation and Employment, PO Box 1473, Wellington, or jarred.rendle@mca.govt.nz

Timetable

B.19 Table 4 provides the timetable for submissions on the appropriation proposals, and for completing the planning documents for the 2013–2016 period.

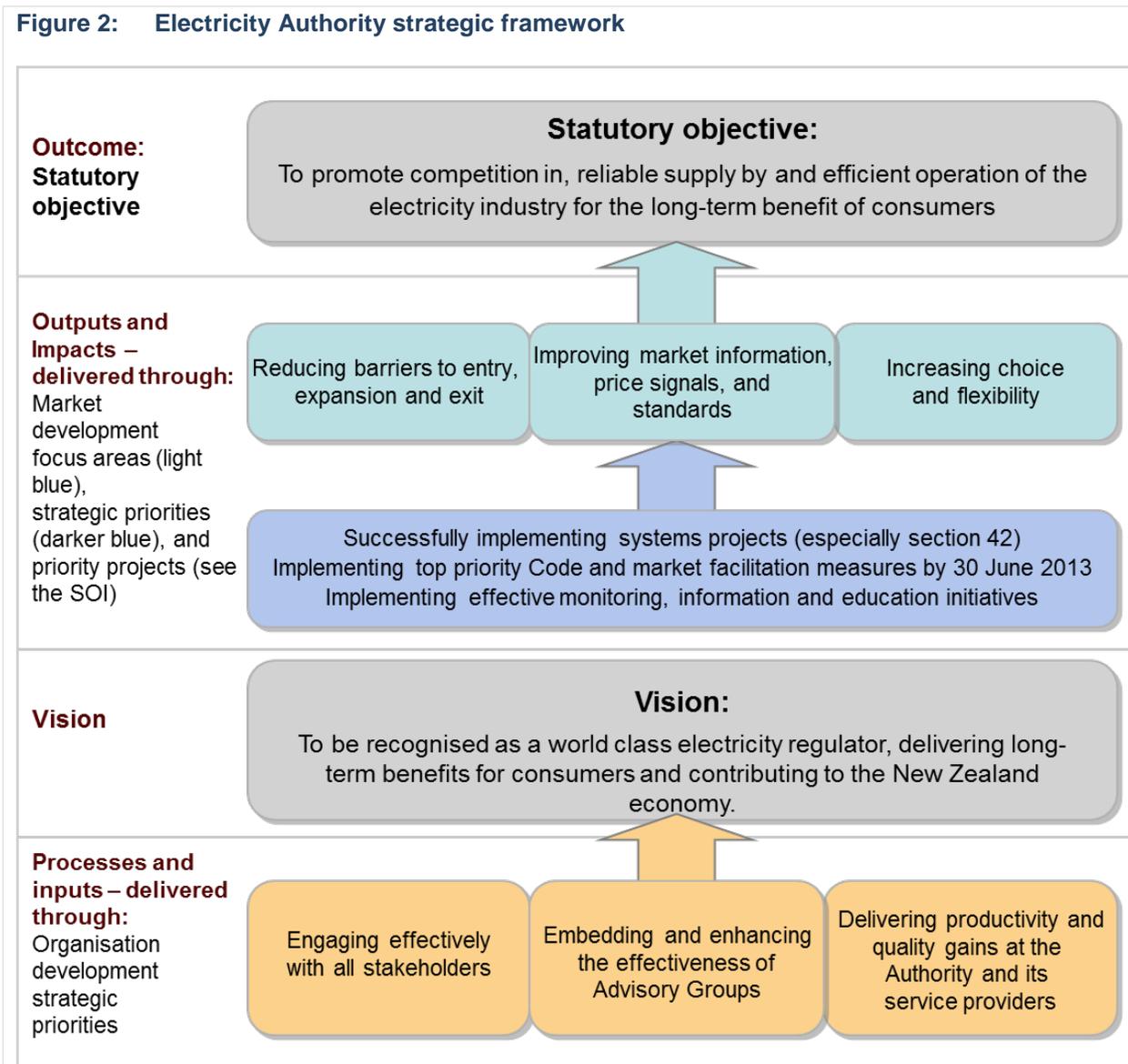
Table 4: Timetable

Deliverables	Completion date
Appropriation consultation period	24 September 2012 to 2 November 2012
Appropriation reports provided to responsible Ministers	No later than the end of January 2013
Statements of Intent published	May 2013 (published the day after Budget day)

Appendix C Authority strategic priorities, outcomes and outcome measures

C.1 Information about the Authority’s strategic priorities and outcomes sought is set out in part two of the 2012–2015 Statement of Intent. These are summarised in the following diagram from page 11 of the Statement of Intent.

Figure 2: Electricity Authority strategic framework



C.2 The strategic priorities and outcomes are set in the context of the environment in which the Authority is operating including consideration of global, national, energy and electricity sector developments, Government priorities, and the Authority’s functions and governing legislation (see pages 7 to 10 of the 2012–2015 Statement of Intent).

- C.3 Pages 14 to 17 of the Statement of Intent set out the Authority’s outcomes and measurement processes. These are the long-term results we are trying to achieve and are driven by our statutory objective in section 15 of the Electricity Industry Act 2010.

Questions relating to Authority strategic priorities, outcomes and outcome measures

Comments are invited on:

4. What changes in the Authority’s operating environment do you consider need to be addressed in developing plans for 2013–2016?
5. What are the key issues you consider the Authority needs to address?
6. How should the Authority update its strategic priorities to reflect the environment and key issues?
7. How could the Authority improve its outcome measures?⁵

⁵ **Outcome** means a state or condition of society, the economy, or the environment, and includes a change in that state or condition. s2 *Public Finance Act 1989*.

Appendix D Authority outputs, impacts and performance measures

- D.1 Information about the Authority outputs, the impacts sought, and the measures of output performance are set out in part three of the 2012–2015 Statement of Intent.
- D.2 This information is a specification of the services that the Authority provides to the Crown and is required under the Crown Entities Act 2004.

Questions relating to Authority outputs, impacts and performance measures

Comments are invited on the following information set out in the 2012–2015 Statement of Intent (pages 18 to 28):

8. How could the Authority improve its output⁶ and impact⁷ measures?

⁶ **Outputs** (a) means goods or services that are supplied by a department, Crown entity, Office of Parliament, or other person or body; and (b) includes goods or services that a department, Crown entity, Office of Parliament, or other person or body has agreed or contracted to supply on a contingent basis, but that have not been supplied. *s2 Public Finance Act 1989.*

⁷ **Impact** means the contribution made to an outcome by a specified set of outputs, or actions, or both. *s2 Public Finance Act 1989.*

Appendix E Authority proposed work priorities

E.1 This Appendix sets out the Authority’s key achievements to date and detailed proposals for projects for 2013/14 and out-years.

Questions relating to proposed Authority work priorities

Comments are invited on the proposed projects for 2013–2016 as set out in tables A to G below, in particular:

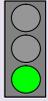
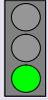
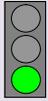
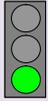
9. your level of support for the overall suite of proposed projects;
10. the priorities assigned to proposed projects;
11. your comments on specific projects;
12. other projects that you consider the Authority should be pursuing in the 2013–2016 timeframe (in which case please provide a description for the proposed project covering:
 - name;
 - short description;
 - rationale for the project – why it is important and the benefits it should deliver; and
 - deliverables – the things the project should do.

Key Authority achievements to date

E.2 Central to the Authority’s first year of existence was delivering on seven priority initiatives required by the Government under section 42 of the Electricity Industry Act 2010. All section 42 matters have been completed within the timeframe. Table 5 is a summary of progress on section 42 matters.

Table 5: Code completion and implementation progress for section 42 matters

Section 42 project	Result	Outcome contribution
Customer compensation scheme s42(2)(a)	 <p>Completed: the customer compensation scheme was implemented prior to winter 2011. This scheme requires retailers to pay customers \$10.50 per week when a public conservation campaign is called by the system operator based on a predefined trigger.</p>	Reliable supply and efficient operation
Scarcity pricing s42(2)(b)	 <p>Code amendments completed: Gazetted 28 October 2011. Scarcity pricing provides for a price floor and price cap for certain emergency load shedding situations. Implementation note: implementation requires software changes to be made by the pricing manager and system operator. NZX is leading the system design and the system operator is providing resource to NZX to ensure an integrated design.</p>	Reliable supply and efficient operation

Section 42 project	Result	Outcome contribution
<p>Stress testing s42(2)(b)</p>	<p> Code amendments completed: Gazetted 3 November 2011. The stress testing regime requires spot market purchasers to calculate their exposure to spot prices, and to report their results to their board and an independent registrar appointed by the Authority.</p> <p>Implementation note: the Authority has published the initial set of stress tests that will apply from the quarter starting 1 July 2012.</p> <p>The Authority has appointed NZX Ltd as the independent registrar to consolidate and present the results anonymously to the Authority.</p> <p>The first set of disclosure statements from participants were received by the registrar in June 2012.</p>	<p>Reliable supply and efficient operation</p>
<p>Locational price risk management Code (Financial transmission rights) s42(2)(c)</p>	<p> Code amendments completed: Gazetted 11 August 2011 and came into force on 1 October 2011. The Code was amended to provide for the introduction of inter-island financial transmission rights (FTRs), a special type of hedge product to assist parties to manage locational price risks caused by transmission constraints and losses between the North and South Islands, and HVDC reserve risks.</p> <p>Implementation note: initial go-live date was October 2012. Now revised to May 2013. The go-live date has been deferred while the Authority sought confirmation of the necessary funding for the project in the 2012 Budget. The first FTR auction is now expected to be held in May 2013.</p> <p>Energy Market Services Limited has been appointed as the FTR Manager and has achieved its initial project milestones, including the submission of the FTR allocation plan, which was approved by the Authority Board in June 2012.</p>	<p>Competition</p>
<p>Demand-side bidding and forecasting (DSBF) s42(2)(d)</p>	<p> Code amendments completed: Gazetted 20 October 2011. DSBF improves demand forecasting, scheduled information and price sensitivities due to changes in demand.</p> <p>Implementation note: DSBF became fully operational on 28 June 2012. Implementation required software changes by the system operator (Transpower Limited) and by the clearing manager (NZX Limited).</p>	<p>Competition</p>
<p>Dispatchable demand s42(2)(d)</p>	<p> Code amendments completed: Gazetted 20 October 2011. Dispatchable demand allows demand (at non-conforming nodes, typically large industrial consumers) to be dispatched in a similar fashion to generation.</p> <p>Implementation note: implementation requires software changes to be made by the system operator, by NZX to the wholesale information and trading system and by industry participants, including consumers who wish to participate in dispatchable demand.</p> <p>A go-live date for dispatchable demand was not able to be set at the time the Code was gazetted and so the June 2013 date was set as a placeholder. A firm timetable for go-live is yet to be agreed with the system operator, however the system operator is currently indicating March – June 2014.</p>	<p>Competition</p>

Section 42 project	Result	Outcome contribution
<p>More standardised tariff structures and use of system agreements s42(2)(e) and (f)</p>	 <p>Completed: Code amendments have been made to provide for more standardisation, e.g. distributor prudential requirements, a requirement that distributors consult before making tariff structure changes, a requirement for distributors to negotiate in good faith or to enter into mediation if parties are unable to agree to terms, standardised data formats used for exchanging tariff rate information, and distributor indemnities. The Code amendments, except as described below, came into force on 1 December 2011:</p> <p>(a) clauses relating to exchanging information about changes to distribution tariffs (i.e. EIEP12), using standard tariff codes and negotiating use of systems agreements (UoSAs) (for existing UoSAs) will apply from 1 July 2013; and</p> <p>(b) clauses relating to prudentials and consultation applied from 1 May 2012.</p> <p>The following further related work is being carried out:</p> <ul style="list-style-type: none"> - Model use of system agreements (MUoSA) covering distributors and retailers contractual relationship are being finalised. Submissions on a consultation paper closed on 11 April 2012 and are being reviewed. The MUoSA are scheduled to be finalised in September 2012. - Voluntary guidelines for consultation on distributor tariff change proposals were developed and approved by the Board on 29 June 2012. 	<p>Competition and efficient operation</p>
<p>Facilitating hedge market activity s42(2)(g)</p>	 <p>Completed: an active market for trading financial hedge products for electricity was provided for through market facilitation measures (without the need to amend the Code). The Authority is continuing to monitor the performance of the hedge market. It has a number of ongoing initiatives to improve its performance.</p>	<p>Competition and efficient operation</p>

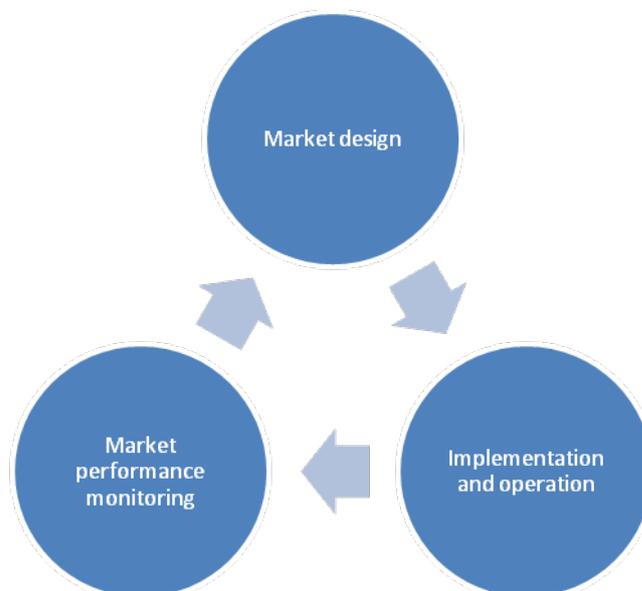
E.3 Since 1 November 2010 the Authority has also introduced a number of other key initiatives.

- (a) Jointly, with Consumer Affairs and Consumer New Zealand, the Authority introduced the What’s My Number campaign to encourage consumers to compare retailers’ offerings and to switch if it is beneficial for them to do so. The campaign started in 2011 and will continue for three years. The campaign and the development of Consumer New Zealand’s website, Powerswitch, are funded by the Authority’s levy.
- (b) The Authority has altered the prudential requirements in the market to ensure they do not provide inefficient barriers to retail entry and competition.
- (c) The Authority has introduced market monitoring and investigates any market activities or outcomes that appear anomalous or likely to indicate the need to change the Code. The Authority has developed more informative reports and established online tools for providing and analysing a vast amount of electricity market data. This has been well-received by industry and has provided additional valuable resources from which the Authority can draw the level of detail it needs to inform its decision-making.

Strategic focus and a longer term view on workload

- E.4 The Authority currently has a heavy project workload. This also translates into a significant workload for our stakeholders, providing input that is vital to the long term effectiveness of initiatives.
- E.5 The Authority considers that there will be an eventual reduction in the market development work programme and an increased emphasis on on-going efficient operation of the electricity system and markets through the Authority's operations and market performance work (see the diagram below). This evolving emphasis of the Authority's work programme is expected to be demonstrated more strongly in the following year's work programme.

Figure 3: The Authority's market performance cycle



- E.6 Some of the themes that underlie the project priorities for 2013–2016 are:
- Several of the top priority projects to date have been implemented and post implementation reviews will begin this year or next as appropriate. Several more projects are currently in the implementation stage or will move into this stage in 2013/14. These are reflected in table A – see page 26.
 - The top priority projects for 2013/14 (see table 7) primarily address the competition channel of the statutory objective. Several of the projects also make a significant contribution to improving industry efficiency. Of the three statutory objective channels, reliability receives the least emphasis this year, which aligns with the lack of reliability issues in the near term and prior investment in this area.
 - Strong progress has been made on reliability through the Authority's work to date (particularly through s42 projects and virtual asset swaps) and the industry's responses to the changed policy settings. Current policy, Code

and market facilitation measures appear to be effective, eg despite the lowest hydro inflows on record, the 2012 winter to date has been uneventful in regard to reliability.

- Over the next few years the Authority will put increasing emphasis on monitoring the result of the initiatives to date, compliance with the Code, investigating market events, and on general monitoring of market performance. It is intended that this monitoring work will have high visibility and will be actively used to consider further Code or market facilitation initiatives where warranted.

Project priorities

E.7 For 2013–2016 planning purposes the Authority is using the same project categories as those used in the published 2012–2015 Work Programme.⁸ Tables A to G that follow set out the proposed work priorities for 2013–2016. Broadly these can be grouped into:

- (a) key implementation projects (see table A);
- (b) top priority market development projects (summarised in table 7 below and expanded on in table B);
- (c) a range of other projects that have potential to deliver substantial or moderate long term benefits to consumers (see tables C, D, and E); and
- (d) projects essential to ensuring the Authority's long term capability (see table G).

E.8 Table 7 summarises the proposed top priority market development projects for 2013/14. Existing (2012/13) top priority projects make up half of the projects and the other half are new for the top 10. Not all of these market development projects are expected to be completed within the year but they are nevertheless considered key market development initiatives. Note that implementation will follow Code amendment or completion of market facilitation measures, if required.

E.9 Further detail about these projects is included in Table B on page 27.

⁸ The 2012–2015 Work Programme is available at: <http://www.ea.govt.nz/about-us/documents-publications/work-programme/>

Table 7: Summary of proposed 2013/14 top priority market development projects

Top priority market development project	New/Existing in top 10	Code amended, if required	Contribution to outcome
1. Efficient allocation of extended reserves (previously named "AUFLS market")	New	2014/15	Reliability and efficiency
2. National ancillary services markets (IR and FK)	New	2014/15	Competition
3. Intra-Island locational price risk management	New	2013/14	Competition
4. Review of half-hour switching process	New	2013/14	Competition and efficiency
5. Improving forecast and settlement prices	New	2015/16	Competition, reliability and efficiency
6. Review of UTS provisions	Existing	2013/14	Competition, reliability and efficiency
7. Settlement and prudential security review	Existing	2013/14	Competition
8. Pivotal pricing project	Existing	2013/14	Competition
9. Consumer switching fund	Existing	NA	Competition
10. Hedge market development	Existing	NA	Competition

Summary of project tables

- E.10 The following sections set out the proposed priority projects for 2013/14 and out-years.
- E.11 At this stage it is expected that the Authority will have the resources to progress all the scheduled projects to the indicated stages. However, in the normal course of events it is anticipated that some reprioritisation would be required during the year, for example, as the information available about specific projects develops.
- E.12 The tables that follow (tables A to G) list the proposed projects using the project categories in table 8.
- E.13 Note that the colours used in table 8 correspond to the header rows in tables A to G that follow.

Table 8: Project categories

Focus	Work programme tables	Comment
2013/14 focus	Table A—Key Implementation projects	Addresses key systems implementation projects
	Table B—Top Priority Market Development Projects	Ten top priority projects: will be used in the Statement of Intent
	Table C—Other Projects for Completion in 2013/14	<p>These are projects where the Authority expects to complete Code development or implementation, as applicable, in 2013/14.</p> <p>Projects include:</p> <ul style="list-style-type: none"> priority 2: significant projects, including Code development projects that have already been commenced and are considered to have the potential to deliver substantial benefits in relation to the Authority's objective; and priority 3: projects that have merit and are able to be resourced in the first instance, but may need to be reprioritised later.
2013/14 and beyond focus	Table D—Other Projects for Completion in 2014/15 or Out-years	<p>These are projects where the Authority expects to complete Code development or implementation, as applicable, in 2014/15 or later.</p> <p>Projects include priority 2; and</p> <p>Priority 3 as above.</p>
	Table E—Future Projects	Projects that will not proceed unless resources become available. Will require initial scoping and cost benefit assessment before proceeding.
Advisory Group	Note regarding Advisory Group projects:	<p>Tables B – D include projects currently being progressed by advisory groups. Potential advisory group projects for 2013/14 are to be discussed with the groups in July 2013. These will become table F in the Work Programme once finalised.</p> <p>NB Previous Advisory Group projects that are now in the implementation stage are covered in table A.</p>
Internal focus	Table G—Organisational development projects	Existing and planned projects that are being carried out for organisation development purposes.

Notes to the project tables

- E.14 These notes apply to all project tables A to G below.
- E.15 **Project milestones**—the project tables below include milestones covering the 2013–2016 period, and in some cases beyond that period.
- E.16 **Project size key**—this addresses the overall estimate of project resource requirements from 2013/14 onwards. The cost assessment does not include costs to others. The assessment gives an indication of the quantum of overall levy cost.
 - **Large:** major project for the Authority involving substantial staff effort and/or expenditure (indicative levy cost over \$0.5m).

- **Medium:** significant project for the Authority involving substantial or moderate staff effort and/or moderate expenditure (indicative cost range \$0.1m to \$0.5m).
- **Small:** smaller project for the Authority involving moderate or low levels of staff effort and/or relatively low or no expenditure (indicative cost range under \$0.1m).

E.17 **Net public benefit key**—this addresses the perceived net public benefit for the project. In some cases the net public benefit assessment is very preliminary and is therefore intended to be indicative only. Cost benefit assessment will be an initial stage of these projects.

- **High:** potentially very high net public benefit.
- **Medium:** potentially moderate to high net public benefit.
- **Low:** potentially low net public benefit.

Important note regarding project deliverables in tables A to G

It should be noted that for all projects the milestones have been set out as if a Code amendment is required. Projects may be ended or a different path decided upon (such as market facilitation measures) at a number of points in the process, in particular after an initial investigation and cost benefit analysis has been completed.

It is not practical to set out the range of possible alternative paths for each project in the following tables. The Authority has set out the potential process and timetable as if a Code amendment is required and all Code amendment milestones should therefore be read as if 'if required' were included in the text.

All milestones are for the end of the financial year (30 June) unless otherwise stated.

Coordination with the system operator

- E.18 Coordination is required with the system operator to manage progress across a range of projects. System operator input is required for both the development and implementation of the Code. The coordination effort spans a range of matters including the level of detail required for the system operator to initiate implementation planning, capacity, and timing of its own initiatives and those required through its being part of Transpower.
- E.19 Authority staff work closely with the system operator to develop an agreed timetable and process for managing these initiatives (joint development programme). The ongoing process of coordinating affected projects may impact the prioritisation and timing of Authority projects.
- E.20 Where possible, indicative dates are provided for projects involving system operator input. However, it should be noted that detailed planning is required by the Authority and system operator before more definitive timetables are completed. These will be advised in relation to specific projects, once available.

A. Implementation and review projects

E.21 The table below addresses existing projects that are expected to be at the implementation stage in 2013/14.

E.22 Resources will also be allocated to completing post-implementation reviews for major projects in 2014/15 and 2016/17.

Table A: Key implementation and review projects

Key implementation and review projects			
Project name	Description	2013/14 milestones	2014/15 Milestones
1. Transmission pricing investigation	Completion of review of transmission pricing - schedule 12.4.	Approval of transmission pricing methodology, if not completed in 2012/13. Finalisation of guidelines, if not completed in 2012/13. Begin implementation of transmission pricing methodology (according to Transpower implementation plan).	Implementation of transmission pricing methodology (according to Transpower implementation plan).
2. Frequency regulation: multiple frequency keepers (MFK)	Develop a system to coordinate multiple frequency keepers, along the lines of an automatic governor control (AGC) system but tailored to New Zealand requirements (e.g. block dispatch). NB currently can only be provided by one generator in each half hour period in each island.	North Island MFK targeted for implementation in June 2013. South Island multiple frequency keepers implementation dependant on completion of South Island generator control system upgrade.	South Island multiple frequency keepers implementation dependant on completion of South Island generator control system upgrade.
3. Dispatchable demand - implementation	Section 42 implementation project. Capital project.	A go-live date for dispatchable demand was not able to be set at the time the Code was gazetted and so the June 2013 date was set as a placeholder. A firm timetable for go-live is not yet agreed with the system operator, however the system operator is currently indicating March – June 2014.	Initiation of post-implementation review (dependent on completion of implementation).
4. Retailer default provisions - implementation	Implementation of outcomes of Retail Advisory Group retailer default provisions into market operations systems (may involve changes to market operations service providers' systems). The Retail Advisory Group project is expected to be completed in 2012/13.	Dependent on design solution, potentially complete any implementation required in 2013/14.	NA
5. Grid configuration arrangements - implementation	Implementation of any systems and/or operational changes from the grid configuration arrangements project (scheduled for completion in 2012/13).	Implementation as required.	NA
6. Wholesale market information	Amendments to the Code (or other market facilitation initiatives) to improve information available to market participants with the primary aim of improving information on the forward price curve, eg access to snow pack/gas/coal fuel data. Improved access to the wholesale information and trading system for wider range of participants. Wholesale Advisory Group project.	Finalise planning outage coordination protocol (POCP)(Red Spider system) enhancements (market facilitation measures). Complete review of WITS/EM6 UoSA (market facilitation measures) - transfer to Market Operations team. Other components completed in the 2012/13 year, including Code amendments.	NB in addition to the core project the Authority will consider progressing "additional suggestions for improving wholesale market information" - lower priority initiatives identified in submissions on the Wholesale Advisory Group discussion paper.

Key implementation and review projects			
Project name	Description	2013/14 milestones	2014/15 Milestones
7. More standardisation programme - impact review	Post implementation review of impacts and outcomes.	Complete the review.	NA
8. Scarcity pricing - impact review	Post implementation review of impacts and outcomes.	Complete the review.	NA
9. Locational price risk management- impact review	Post implementation review of impacts and outcomes.	Review of impact after financial transmission rights (FTR) has been in operation for six months.	On-going monitoring to be determined.
10. Metering (Part 10) - impact review	Post implementation review of impacts and outcomes.	Determine whether post implementation review is required.	Complete review, if required.

B. Top priority market development projects

E.23 Top priority is being given to addressing key pieces of work where there is a strong case for proceeding as quickly as possible, including a compelling net public benefit. These are existing or new projects where Code or market facilitation deliverables are to be given top priority for resource allocation in 2013/14. Some top priority projects are expected to be completed after 2013/14 due to the nature and extent of work involved.

Table B: Top priority projects: Code and market facilitation measures for 2013/14

Top priority market development projects for 2013/14					Initial Assessment	
Project name	Description	2013/14 milestones	2014/15 milestones	2015/16 and out-year milestones	Project size	Net public benefit
1. Efficient allocation of extended reserves (previously named automatic under-frequency load shedding (AUFLS) market development).	Investigate options for a move over time towards developing an AUFLS market (efficient allocation of extended reserves).	Market development and implementation dependant on option chosen in 2012/13. This will impact scope, timing and cost of potential development.	Market development and implementation dependant on option chosen in 2012/13.	To be determined.	Small <\$0.1m	Medium

Top priority market development projects for 2013/14					Initial Assessment	
Project name	Description	2013/14 milestones	2014/15 milestones	2015/16 and out-year milestones	Project size	Net public benefit
2. National markets for ancillary services	Initial consideration of national markets for frequency keeping and instantaneous reserves. Instantaneous reserves is a Wholesale Advisory Group project. Implementation dependent on HVDC bi-pole control systems being fully in service/ Grid Owner agreement on use of HVDC.	National frequency keeping market developed (timeframe to be determined by investigation in 2012/13). Finalise Wholesale Advisory Group recommendations to the Board on instantaneous reserves and draft Code amendments.	National frequency keeping market implemented June 2015 (timeframe to be determined by investigation in 2012/13). Finalise instantaneous reserves Code amendment and potential implementation stage: dependent on result of design stage.	NA	Medium \$0.1-0.5m	High
3. Intra-island locational price risk management	Introduction of a solution to assist parties to manage spot price risks within an island. Review allocation of any residual FTR and loss and constraint excess revenue.	Complete code amendments - finalise residual loss and constraint excess distribution post transmission pricing methodology being finalised. Complete Code amendments - mechanism for managing intra-island locational price risk. Hand over to Operations Development team for implementation.	Implementation stage. Any tidy up Code amendments required.	NA	Medium \$0.1-0.5m	High
4. Review of half hour switching process	Comprehensive review of switching rules. Focus on half hour mass market to ensure half hour rules advanced meter infrastructure sites do not have to be switched manually.	Completion in December 2013.	NA	NA	Small <\$0.1m	High
5. Improving forecast and settlement prices	Review of options to improve forecast and settlement prices, especially during periods of system stress. Wholesale Advisory Group project.	Release Wholesale Advisory Group discussion paper if not completed in 2012/13. Finalise Wholesale Advisory Group recommendation on feasibility/cost benefit analysis of progressing initiative.	Prepare detailed development plan. Develop pilot programmes, publish alternative spot prices that could be used for settlement.	Complete Code amendments.	Large >\$0.5m	High

Top priority market development projects for 2013/14					Initial Assessment	
Project name	Description	2013/14 milestones	2014/15 milestones	2015/16 and out-year milestones	Project size	Net public benefit
6. Review of undesirable trading situation (UTS) provisions	<p>Project to review UTS provisions in the Code. The review covers:</p> <ul style="list-style-type: none"> - the definition of a UTS; - the processes set out in the Code in regard to a potential or actual UTS; and - the remedies available to the Authority when a UTS has occurred. 	<p>Timing dependent upon Court of Appeal outcome. Develop and consult on amended UTS provision. Complete Code amendment.</p>	<p>Finalising Code amendment may fall into this year, but unlikely. Handover to Authority Operations Development team for implementation.</p>	NA.	Medium \$0.1-0.5m	High
7. Settlement and prudential security review	<p>Improvements to clearing and settlement parts of the Code to improve efficiency and competition.</p> <p>Wholesale Advisory Group project.</p>	<p>Complete Code amendment. Some level of implementation progress (depends on the timing of the completion of the review and the extent of systems development required).</p>	<p>Any subsequent refinements to Code amendment required from more detailed understanding gleaned during implementation phase. Full implementation may not be completed until 2014/15.</p>	Possible post implementation review.	Medium \$0.1-0.5m	High
8. Pivotal Pricing Project: Improving pricing efficiency when a generator is pivotal	<p>Consider options, and develop if appropriate, measures to bring more confidence that prices during pivotal generation situations are consistent with prices in a workably competitive market.</p> <p>Wholesale Advisory Group project.</p>	<p>Finalise Wholesale Advisory Group recommendations to the Authority Board, if not completed in 2012/13. Complete code amendment.</p>	<p>Finalising Code amendment may fall into this year, but unlikely. Handover to the Authority Operations Development team for implementation.</p>	NA	Medium \$0.1-0.5m	High
9. Consumer switching fund	<p>On-going delivery and development of consumer switching output class. Statutory function under s16(1)(i): to promote to consumers the benefits of comparing and switching retailers.</p> <p>In addition, Retail Advisory Group is undertaking a review of the future direction of the programme for beyond April 2014.</p>	<p>Successful completion of programme at 30 April 2014. Retail Advisory Group completes review of consumer switching function for beyond 30 April 2014, if any.</p>	<p>Complete post programme review and publish report, if required.</p>	NA	Large >\$0.5m	High

Top priority market development projects for 2013/14					Initial Assessment	
Project name	Description	2013/14 milestones	2014/15 milestones	2015/16 and out-year milestones	Project size	Net public benefit
10. Hedge market development	Monitoring industry progress and developing further market facilitation initiatives to improve the hedge market.	New ASX products, options, peaking, cap (market facilitation measures). Market making options (market facilitation measures). ASX positions offset energy market prudential security requirements (Code amendment). Hedge market survey. Quarterly reporting on progress to be undertaken by the Authority Market Performance team.	Continuation of previous year, ongoing development.	Continuation of previous year, on-going development.	Small <\$0.1m	High

C. Other projects for completion in 2013/14

E.24 The table below sets out existing and new projects where Code or market facilitation deliverables are expected to be completed in 2013/14.

Table C: Other projects expected to be completed in 2013/14

Second priority projects for completion in 2013/14					Initial Assessment	
Project name	Description	2013/14 milestones	2014/15 milestones	2015/16 and out-year milestones	Project size	Net public benefit
1. Improved market modelling of losses	Improve the representation of losses in the system operator's scheduling, pricing and dispatch model – provides for a lower cost market solution. NB current setting are based on historical computing capacity constraints that no longer apply.	Complete Code amendments.	Possible implementation.	NA	Small <\$0.1m	Medium
2. Alternative funding arrangements investigation	A review to consider possible alternative funding arrangements to determine whether there are more efficient means of funding specific Authority operations (eg service providers). NB if change is required, legislation will be required.	Complete review. Further steps, if any, to be determined.	NA	NA	Small <\$0.1m	NA
3. Distribution pricing review	Review of distributors' alignment with <i>Distribution Pricing Principles and Information Disclosure Guidelines</i> .	Review completed in 2012/13. Evaluation of findings and development of response, if required.	NA	NA	Medium \$0.1 - 0.5m	Medium

Second priority projects for completion in 2013/14					Initial Assessment	
Project name	Description	2013/14 milestones	2014/15 milestones	2015/16 and out-year milestones	Project size	Net public benefit
4. Improvements to existing spot pricing process	Review the need for changes to the existing spot pricing process, including: <ul style="list-style-type: none"> - improved modelling of constraints in the system operator's scheduling, pricing and dispatch model; - wind generation inputs into final pricing; - infeasibility resolution improvement process; - time limit on the republication of final prices; and - interim pricing period deadline changes. 	Complete Code amendments.	Potential implementation phase.	NA	Medium \$0.1-0.5m	Medium
5. Allocation of constrained-on costs	Review the calculation and allocation of constrained-on costs to ensure efficiency.	May be completed in 2012/13 year, but possibly final stages of completing Code amendments in 2013/14. Hand over to the Authority Market Operations team for implementation. Implementation stage: pricing manager changes.	Potentially implementation phase continues.	NA	Small <\$0.1m	Low
6. Research project - efficiency of system operator arrangements	Review service provider arrangements relating to system coordination and related market services. To start after system operator alignment review project. (Links to SOSPA review.)	Complete the review.	NA	NA	Medium \$0.1-0.5m	Low
7. Definitions under the Act (previously definition of trader)	Address the issue of the introduction of financial traders and a review of type two retailers. Review of definitions of 'generator', 'metering equipment owner' and 'trader' under the Act. Potential class exemptions for last two.	Definition of trader completed in 2012/13. Others completed in 2013/14.	NA	NA	Small <\$0.1m	Low
8. System operation alignment review	A wide ranging review of the SOSPA arrangements, including: <ul style="list-style-type: none"> - alignment of SOSPA objectives with section 15 of the Electricity Industry Act 2010; - development of a wider range of performance measures; - addressing capital plan and spending arrangements; and - addressing the impact of fee changes on levy payers. 	Could be completed in 2012/13 if renegotiation is straightforward. Otherwise complete review and update SOSPA, if required in 2013/14.	NA	NA	Medium \$0.1-0.5m	NA

Second priority projects for completion in 2013/14					Initial Assessment	
Project name	Description	2013/14 milestones	2014/15 milestones	2015/16 and out-year milestones	Project size	Net public benefit
9. NZX hardware refresh	Replacement of hardware for reconciliation manager, pricing manager, clearing manager and wholesale information and trading system.	To be completed by 14 October 2013.	NA	NA	Small <\$0.1m	NA
10. Review of Part 6 (pricing principles)	New for 2013/14: A review of Part 6 of the Code pricing principles, to ensure consistency and alignment with distribution pricing principles.	Consultation on issues and problems with pricing principles in Part 6. Consultation on Code changes. Review informed by findings of review of distribution pricing.	Amendment to the Code.	NA	Small <\$0.1m	Medium
11. Code upgrade project	New for 2013/14: A project to address potential legal deficiencies in the Code to the extent possible without having to consider substantive policy matters. It is not a redraft to introduce a performance-based approach to drafting the Code. Potential scope includes: <ul style="list-style-type: none"> - removing provisions that are covered by the Act; - consistency on incorporation by reference; - review of Part 1; - clarifying defined meanings of some words and phrases; - reviewing codes of practice in Part 8 for consistency with the Code Drafting Manual; - rationalising the net benefit tests in Part 12; - ensuring enduring forms of security described in Part 14; - removing spent Code provisions; - clarifying obligations on Transpower as system operator versus grid owner; and - rationalising reporting, publication and audit requirements. 	Complete the project and Code amended.	NA	NA	Medium \$0.1-0.5m	Low

Third priority projects for completion in 2013/14					Initial Assessment	
Project name	Description	2013/14 milestones	2014/15 milestones	2015/16 and out-year milestones	Project size	Net public benefit
1. Value of lost load (VoLL)	<p>Completion of review of value of lost load.</p> <p>Output will contribute to transmission and distribution network planning purposes - involves changes to Subpart 3 of Part 12.</p> <p>This project has implications for scarcity pricing and AUFLS.</p>	<p>Consultation on Code amendments.</p> <p>Completed Code amendments.</p>	NA	NA	Medium \$0.1-0.5m	High
2. Breakdown of customer billings	<p>Review whether there should be disclosure of the component parts of customer electricity bills.</p> <p>Retail Advisory Group project.</p>	<p>Authority response to Retail Advisory Group recommendations.</p> <p>Code amendment, if required.</p>	NA	NA	Small <\$0.1m	Low
3. Domestic contracting arrangements	<p>Consideration of suite of arrangements for improving the consumer and distributor/retailer relationship, including medically dependent and vulnerable consumers.</p> <p>Retail Advisory Group project.</p>	<p>Authority response to Retail Advisory Group recommendations.</p> <p>Code amendment, if required.</p>	NA	NA	Small <\$0.1m	Low
4. Extend Consumer Guarantees Act indemnity to Transpower	<p>Review whether the Consumer Guarantees Act indemnity obligations on lines companies should be extended to Transpower.</p>	<p>Consultation on Code amendments.</p> <p>Completed Code amendments.</p>	NA	NA	Small <\$0.1m	Low
5. Research project - distribution company arrangements	<p>Research project to review the efficiency of distribution network company arrangements.</p>	<p>Scoping of project to be completed in 2012/13.</p> <p>Consultation on issues and publication of findings.</p>	To be determined	To be determined	Medium \$0.1-0.5m	NA
6. Review of liability limits for market operations service providers	<p>Review the liability limits for the pricing manager, reconciliation manager, clearing manager, Wholesale information and trading system manager, registry manager and FTR manager to ensure these remain consistent with the services provided and the balance of risk between the providers and industry participants.</p> <p>The liability limits are not set down in the Code, but in the Electricity Industry (Enforcement) Regulations 2010.</p> <p>Any change in the limits would then require a change in the regulations (coordinated with the Ministry of Business, Innovation and Employment).</p>	<p>Complete review and make any recommendations for changes to the liability limits and relevant regulations to the Ministry of Business, Innovation and Employment.</p>	Implement changes to service provider agreements (in the event that there are changes to the Regulations).	NA	Small <\$0.1m	Low

Third priority projects for completion in 2013/14					Initial Assessment	
Project name	Description	2013/14 milestones	2014/15 milestones	2015/16 and out-year milestones	Project size	Net public benefit
7. Review of use of profiles	Review of the extent of use of profiles and whether they are being efficiently applied. Initial work will be required to investigate extent of the issue.	Complete review. Implementation, if required.	NA	NA	Small <\$0.1m	Low
8. Frequency regulation: review normal frequency band and asset owner performance obligations	Review of the frequency keeping Hz band, MW band and related asset owner performance obligations to determine if fit for purpose. Investigation reports produced by the system operator in 2011. Significantly delayed due to priority being given to HVDC work by the Authority's Common Quality staff. Further system operator investigation may be required - implications for software.	Code amendments are planned for completion in 2012/13 for: - frequency deviation targets; - time error standard; and - minimum governor response. Initiation of cost allocation code amendments related to governor response planned for 2013/14. NB scope and timeframe for this work to be determined.	NA	NA	Small <\$0.1m	Medium
9. Under-frequency management-Instantaneous reserve asset owner performance obligations	Review of instantaneous reserve asset owner performance obligations.	Code amendments completed. Implementation, if required.	Implementation, if required, may continue in to 2014/15.	NA	Small <\$0.1m	Low
10. Service provider software review	New for 2013/14: Fit for Purpose review of service provider software and systems (excluding system operator). Review of market operations service provider systems to ensure the technology remains current with performance and functionality requirements and the development of the electricity market.	Complete review and make any recommendations on system changes required (for subsequent development into an implementation project).	To be determined	To be determined	Medium \$0.1-0.5m	Low
11. Review use of seasonal adjustment shape	New for 2013/14: Determine if the reconciliation process should be modified to allow seasonal adjustment shape or residual profile shape for calculation of historic estimates.	Determine if seasonal adjustment shape or residual profile shape may be used in the calculation of historic estimates.	NA	NA	Small <\$0.1m	Low

D. Other projects for completion in 2014/15 and out-years

E.25 The table below sets out existing and new projects in line with the Authority's statutory objective, where Code amendments or market facilitation measures are not expected to be completed in 2013/14.

Table D: Other projects for completion in 2014/15 and out-years

Second priority projects for completion in 2014/15 and out-years					Initial Assessment	
Project name	Description	2013/14 milestones	2014/15 milestones	2015/16 and out-year milestones	Project size	Net public benefit
1. Dispatchable demand: phase 2 – conforming load	Facilitating greater demand-side participation in the wholesale market – for nodes where centralised load forecasts are used rather than bids (conforming nodes).	Possible completion of Code amendment (dependent upon progress of implementing dispatchable demand phase 1, and whether the choice is made to implement phase 1 and phase 2 together (one suggestion recently put forward by the system operator)).	Possible continuation of work to complete Code amendments. Implementation stage: scope and timing dependent on design stage.	NA	Medium \$0.1-0.5m	Medium
2. Under-frequency management - including AUFLS technical review	Review of all under frequency management tools, including verifying modelling formats. Overall event management comment: Some components (eg AUFLS block sizing and trigger points) will be progressed in conjunction with the AUFLS review work carried out by the system operator.	Review to be completed in 2012/13. Develop future improvements (timetable and priority order to be established): - interruptible load and generator data provision - underway in 2012/13; - very fast reserve product; - over-frequency product; - inertia market; - RMT replacement; - wind generators to provide reserves; and - interruptible load modelled according to tripping time.	Develop future improvements as per 2013/14.	As per 2014/15.	Medium \$0.1-0.5m	Medium

Third priority projects for completion in 2014/15 and out-years					Initial Assessment	
Project name	Description	2013/14 milestones	2014/15 milestones	2015/16 and out-year milestones	Project size	Net public benefit
1. Review of Part 12	Review of Part 12 of the Code to ensure it is fit for purpose.	Consultation on scope of problems and issues with Part 12. Consultation on options for revising Part 12.	Consultation on Code amendments. Completed Code amendments.	Implementation, if any.	Medium \$0.1-0.5m	NA

Third priority projects for completion in 2014/15 and out-years					Initial Assessment	
Project name	Description	2013/14 milestones	2014/15 milestones	2015/16 and out-year milestones	Project size	Net public benefit
2. Offer and dispatch Code development	<p>Improve the offer and dispatch rules to improve operational efficiency, eg:</p> <ul style="list-style-type: none"> - review of gate closure - potential further work; - reserve offers; and - other areas where we are getting Code amendment proposals. <p>Initiatives will be prioritised and progressed as resources permit.</p>	<p>Complete gate closure Code amendments (depending upon feasibility study completed the previous year).</p> <p>Evaluate and develop Code amendments for the following initiatives:</p> <ul style="list-style-type: none"> - clarify code provisions 13.18, 13.19, 13.19a (Compliance Committee recommendations); - review reserve offer algorithm (Genesis Energy proposal); - intermittent generation (wind) re-offer provisions; and - minimum offer price for interruptible load (13.43, issue identified in the Wholesale information and trading system audit). 	<p>Evaluate and develop Code amendments for the following initiatives (feasibility of picking up new initiatives depends upon progress in previous year):</p> <ul style="list-style-type: none"> - must run dispatch offer review - negative offers; and - dispatch instruction compliance review (including intermittent generation). <p>Potential implementation stage (dependent on design stage).</p>	<p>Continuation of previous year, on-going development.</p> <p>Potential implementation stage (dependent on design stage).</p>	Medium \$0.1-0.5m	High
3. Instantaneous reserve cost allocation methodology	Review of the instantaneous reserves cost allocation methodology.	<p>Possible Wholesale Advisory Group project for 2013/14.</p> <p>Wholesale Advisory Group discussion paper released.</p>	<p>Finalise Wholesale Advisory Group recommendations to the Board.</p> <p>Complete Code amendments.</p> <p>Potential implementation stage (dependent on design stage).</p>	NA	Small <\$0.1m	Medium
4. Trading arrangements (Part 13) review	Review the Code relating to trading. Includes scheduling, dispatch, pricing, information and information disclosure.	<p>Phase 1: undertake a cost benefit assessment to assess value of pursuing with project.</p> <p>Potential Wholesale Advisory Group project for 2013/14.</p>	<p>Phase 2: (assuming phase 1 is positive) progress to actual review (large project, significant legal and industry input required).</p> <p>Publish consultation paper on proposed Code amendments.</p>	<p>Complete Code amendments.</p> <p>Implementation stage (scope, timing and cost dependent on design stage).</p>	Large >\$0.5m	Medium
5. Asset owner performance obligations: voltage rules	Review of voltage asset owner performance obligations to determine if fit for purpose with changing generation mix (eg significant wind generation).	<p>Initiate project.</p> <p>Scope to be developed, which will determine overall timetable.</p>	To be determined	NA	Small <\$0.1m	Low

Third priority projects for completion in 2014/15 and out-years					Initial Assessment	
Project name	Description	2013/14 milestones	2014/15 milestones	2015/16 and out-year milestones	Project size	Net public benefit
6. Review of the potential to improve retail competition in embedded and customer networks	New for 2013/14: Examination of the potential to improve retail competition in embedded networks and customer networks. Retail Advisory Group project.	Initiation in mid/late 2013. Retail Advisory Group consultation on issues and options.	Authority response to Retail Advisory Group advice, including Code amendments, if necessary. Potential implementation stage (dependent on design stage).	To be determined.	Small <\$0.1m	Low

E. Future projects

E.26 The table below lists projects that have had an initial assessment as having merit but are not scheduled for initiation in the 2013/14 year.

Table E: Information about proposed future projects

Future projects					Initial Assessment	
Project name	Description	2013/14 milestones	2014/15 milestones	2015/16 and outyear milestones	Project size	Net public benefit
1. Potential Research project - low fixed charges	A potential research project looking into the effects on efficiency and competition of the Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004 and other means of achieving the social welfare outcomes sought by government.	NA	NA	NA	Medium \$0.1 - 0.5m	NA
2. Optimisation of non-technical distribution losses	Investigate the reduction in non-technical losses.	NA	NA	NA	Small <\$0.1m	Low
3. Responsibility for maintenance of consumer service lines	Scope the work that may be required to establish a project to investigate options resolve the consumer service line ownership issue. The Commission published an information paper providing some guidance on how to determine ownership on a case by case basis. However, there is a need to look at the issues and possible long term solutions. There is a question about whether this is a broader policy issue that needs to be dealt with by the Ministry of Business, Innovation and Employment.	NA	NA	NA	Small <\$0.1m	Low

Future projects						Initial Assessment	
Project name	Description	2013/14 milestones	2014/15 milestones	2015/16 and outyear milestones	Project size	Net public benefit	
4. Guidelines for secondary networks - network extensions and customer networks	Development of arrangements for network extensions and the establishment of compliance requirements.	NA	NA	NA	Small <\$0.1m	Low	
5. Pre-certification stage investigation	Project to facilitate new entrant retailers including consideration of Authority discretion around period for new retailers to gain certification. Potentially able to be addressed as a minor Code amendment.	NA	To be determined	To be determined	Small <\$0.1m	Low	
6. Frequency regulation: frequency keeping cost allocation	Project purpose is to allow anticipated wind generation to be successfully integrated into the New Zealand electricity system over the next five-10 years. Phase 3: frequency keeping cost allocations, asset owner performance obligations /dispensation/equivalence review.	NA	Restart consideration of frequency keeping cost allocation post national frequency keeping market implementation.	TBA	Medium \$0.1-0.5m	Medium	
7. Credible event management: under voltage management	Review appropriateness of the Code for under-voltages during events.	NA	NA	NA	Medium \$0.1-0.5m	Medium	
8. Common quality development plan - further items	Possible initiatives as listed in the Common Quality Development Plan - not prioritised or costed but including development of a reactive market and review of kvar procurement.	NA	NA	NA	Medium \$0.1-0.5m	Medium	
9. Short-term hedge instruments	Consider the need for a short-term market for hedge instruments (e.g. day-ahead).	NA	NA	NA	Medium \$0.1-0.5m	Medium	
10. Demand side bidding and forecasting (DSBF) - impact review	Post implementation review of impacts and outcomes.	NA	NA	NA	Small <\$0.1m	Low	

Future projects						Initial Assessment	
Project name	Description	2013/14 milestones	2014/15 milestones	2015/16 and outyear milestones	Project size	Net public benefit	
11. Review of arrangements for management of load control (distribution system operator)	New for 2013/14: Project arising from model use of systems agreement (MUoSA) development. Review of arrangements for management of load control (distribution system operator).	NA	Consultation on issues and problems with arrangements for coordinating load management.	Consultation on Code changes, if necessary.	Medium \$0.1-0.5m	Medium	
12. Fit for purpose review of information papers and guidelines	New for 2013/14: Review of all information papers and guidelines. Many of these documents require review to ensure they are still fit-for-purpose and align with the Code and current market processes. Accurate information papers and guidelines assist new entrant and existing participants with compliance with the Code.	NA	To be determined	To be determined	Medium \$0.1-0.5m	Low	
13. Review definitions under the Act and the Code that may apply to islanded networks	New for 2013/14: Determine what extent of obligations under the Act and Code apply to networks that are not connected to the grid. Inaccurate definitions will lead to participants being required to register as participants with the Authority, when this is not necessary. Including sections of network that are islanded under the continuance of supply requirements of the Act (may require the project to be started sooner rather than later).	NA	To be determined	To be determined	Small <\$0.1m	NA	
14. Review of market administrator role	New for 2013/14: General tidy up review. Includes determining if: - some market administrator tasks can be addressed in a different manner; and - market administrator obligations in the Code should be changed to Authority obligations.	NA	To be determined	To be determined	Small <\$0.1m	NA	

F. Advisory group projects

- E.27 Tables B – D include projects currently being progressed by advisory groups.
- E.28 Potential advisory group projects for 2013/14 are to be discussed with the groups after this consultation process has been completed. These will become table F in the Work Programme once finalised.

G. Organisational development projects

- E.29 The table below lists projects that are planned for the 2013/14 year to improve the Authority's capability in order to deliver its vision of being recognised as a

world class electricity regulator, delivering long-term benefits for consumers and contributing to the New Zealand economy.

Table G: Organisational development projects

Organisational projects					Initial Assessment	
Project name	Description	2013/14 milestones	2014/15 milestones	2015/16 and out-year milestones	Project size	Net public benefit
1. Data warehouse	Project to enable market monitoring and analysis function and enhanced public data availability and analysis tools. Core function launched in 2011/12. There is on-going project work to add new data sets and reports.	On-going project work to add new data sets and reports.	On-going project work to add new data sets and reports.	On-going project work to add new data sets and reports.	Small <\$0.1m	NA
2. Path to world class	Umbrella project: continuing organisational development to achieve the Authority vision. Includes alignment with government's better public service programme.	On-going organisational development programme.	On-going organisational development programme.	On-going organisational development programme.	Medium \$0.1 - 0.5m	NA
3. Information systems strategic plan	Part of the Path to world class: 2012/13 target is to complete a plan of information technology requirements for the next five years.	Implement the programme of work set out in the information systems strategic plan.	Implement the programme of work set out in the information systems strategic plan.	Implement the programme of work set out in the information systems strategic plan.	Small <\$0.1m	NA
4. Improving project management practice	Set out roadmap to achieving desired future state (best practice) to be completed in 2012. Development of policy, procedures, tools and practice.	Project completed and lessons learned documented. Transition to business as usual implementation, maintenance and support.	NA	NA	Small <\$0.1m	NA
5. Non-financial performance information review	Ensuring system and processes in place for reporting against non-financial performance information in the Statement of Intent. Includes ensuring Office of the Controller and Auditor General and Audit NZ requirements are met (e.g. AG4 standard).	Review non-financial performance information for the Statement of Intent in order to maintain a "good" or achieve a "very good" rating from Audit NZ.	NA	NA	Small <\$0.1m	NA
6. Knowledge and records management enhancements	Project work to ensure that the Authority moves towards knowledge management, and meets record management standards and requirements.	Initiate implementation of an information /knowledge management strategy (scope to be determined in 2012/13).	To be determined	To be determined	Small <\$0.1m	NA
7. Staff capability development programme	On-going programme for the development of staff capability to support the achievement of the vision (building on 2012–2015 Statement of Intent p 42).	On-going programme of staff capability development.	On-going programme of staff capability development.	On-going programme of staff capability development.	Small <\$0.1m	NA

Organisational projects					Initial Assessment	
Project name	Description	2013/14 milestones	2014/15 milestones	2015/16 and out-year milestones	Project size	Net public benefit
8. Implementation of changes to the Crown Entities Act	<p>New for 2013/14: Government has indicated changes to the Public Finance and Crown Entities Acts to apply from 1 July 2013.</p> <p>Project also includes Public Benefit Entity reporting requirements effective 1 July 2014, also requiring comparatives for July 2013 to June 2014.</p>	<p>Implement all necessary changes resulting from the review of the Public Finance Act and Crown Entities Act under the "better public services" initiative.</p> <p>Public Benefit Entity reporting requirements effective for 1 July 2014.</p>	As per 2013/14.	As per 2013/14.	Small <\$0.1m	NA

Appendix F Proposed EECA Priorities

- F.1 This appendix provides information to assist stakeholders understand the rationale underlying the proposed levy-funded appropriation for the Energy Efficiency and Conservation Authority (EECA).

Background

- F.2 The Electricity Industry Act 2010 allows for the collection of a levy to part fund EECA to promote and facilitate the efficient use of electricity.
- F.3 In 2007, Cabinet approved an annual appropriation of up to \$17.5 million for the development of electricity efficiency programmes.
- F.4 From 1 November 2010, section 128 (3) (c) of the Act provides for electricity levy funding of EECA in performing its functions and exercising its powers and duties in relation to the encouragement, promotion, and support of electricity efficiency.
- F.5 EECA is a Crown Entity, established under the Energy Efficiency and Conservation Act 2000. It is subject to the Crown Entities Act 2004. EECA's role is to encourage, support, and promote energy efficiency, energy conservation, and the use of renewable sources of energy in New Zealand. EECA is empowered to promote public awareness, promote practices and technologies, to arrange for the conduct of research, assessments demonstrations and studies, and to monitor and review the state of energy efficiency in New Zealand.
- F.6 This year, EECA is proposing no increase to the levy and will maintain it at \$13 million to gain significant electricity efficiency savings, the key difference being the partial funding of the electrical products performance standards programme. This work has proved very cost effective in the past and is expected to result in a further improvement in the overall return on levy payers' funds.

New Zealand's Electricity Use

- F.7 At about 37,000 GWh, electricity accounted for 25% of New Zealand's total energy usage in 2011. About 36% of this electricity is used in domestic applications – water heating, refrigeration, lighting, electronic appliances and space heating. About 25% is used in commercial applications – refrigeration, lighting, space heating and cooling, and water heating. The remaining 39% is used in industrial sectors – electric motors, metal manufacture and pump systems.
- F.8 Significant potential exists in the areas identified above for efficiency gains to be made, and the work programme detailed below targets many of these areas for savings opportunities.
- F.9 Investment in cost-effective electricity efficiency measures benefits electricity consumers by directly reducing costs.

- F.10 In aggregate, electricity efficiency also defers the timing of generation investment, which in turn places downward pressure on the forward wholesale price curve – a benefit to all customers.

Electricity efficiency programme design and performance

- F.11 Electricity efficiency programmes are designed to focus on economic and achievable savings across all sectors of the New Zealand economy. The programme design principles involve:
- (a) Identifying the sectors, technologies and practices across New Zealand where significant achievable electricity efficiency potential exist and can provide national economic benefit.
 - (b) Examining and understanding the barriers to investment that are inhibiting action by those expected to have the most interest in the savings opportunities identified.
 - (c) Bringing together the information from the first two steps, to develop cost effective electricity efficiency programmes that achieve measurable and sustainable electricity savings.
 - (d) 'Locking in savings' by way of performance based contracting, improved product standards and labelling on electrical products.
- F.12 All programmes deliver national benefits at a total cost less than the marginal cost of new generation, and all are delivered at a cost to the levy of less than 2 cents per kWh saved.
- F.13 With an investment of \$72 million since 2006, the levy-funded electricity efficiency programmes are estimated to have provided the following benefits (as at 30 June 2012):
- (a) electricity savings of 957 GWh per annum;
 - (b) peak demand reduction of 364 MW; and
 - (c) present value of savings estimated at \$520 million.

EECA electricity efficiency programme priorities

- F.14 The focus for 2013/14 will continue to be on those areas that demonstrate the highest economic and achievable potential and to target programmes to address the key barriers currently preventing realisation of those potentials.
- F.15 Targeted areas have been identified by way of both the Electricity Commission's KEMA Potentials Model and EECA's OPENZ Model and are as follows,
- (a) motorised systems in industry;
 - (b) heating, ventilation and air conditioning (HVAC) and refrigeration in commercial buildings;
 - (c) lighting in the commercial, residential and roading sectors; and

(d) standards and labelling for electrical equipment and appliances.

F.16 Programmes will be targeted to cost-effectively address market barriers, including

- (a) access to information, leading to process efficiencies and attitudinal changes;
- (b) split incentives and intra-organisational blockages;
- (c) technical expertise within and/or available to businesses; and
- (d) budget constraints and investment capital prioritisation.

F.17 The mix and quantum of programmes reflects the core objectives of the programmes – to maximise both the economic net present value generated by electricity savings and the value leveraged from the levy investment.

F.18 The priority programme areas for 2013/14 included in EECA’s levy appropriation proposal are outlined in the following table.

Programme	Description	Proposed 2013/14 funding from levy (\$ million)
Commercial Sector – heating, ventilation, air conditioning, lighting and products.	<ul style="list-style-type: none"> • Providing information and building capability through building management training, the NABERS building rating programme, commercial lighting efficiency information and new building design assistance. • Training to improve electricity management and efficiency in the refrigeration, air-conditioning and heating services industry focusing on systems components, new technologies and activities within the industry. • Delivering, updating and enforcing standards and labelling programmes for products utilised in the commercial sector such as commercial AC chillers, refrigerated display cabinets and office imaging appliances (copiers, scanners and faxes). • Providing capital assistance for lighting controls, monitoring and targeting projects, continuous commissioning projects and audit and works projects. 	8.2
Industrial Sector – motors and motor systems and products.	<ul style="list-style-type: none"> • Building the capability of the motor repair industry to maintain motor stock efficiency, and of specialist technical service providers to identify and implement efficiency improvements. • Providing businesses with information to make economically sound policies for motor repair or replacement decision-making. • Facilitating uptake of motor systems (compressed air, pumps, fans and drives) efficiency improvements. • Providing funding to overcome site-specific financial barriers, as appropriate. • Introducing and updating minimum energy performance standards for three phase cage induction motors, pumps and fans and air compressors. 	2.8

Programme	Description	Proposed 2013/14 funding from levy (\$ million)
Residential Sector – lighting and products.	<ul style="list-style-type: none"> • Providing information on lighting options, product efficiency labelling and other electricity efficiency opportunities such as hot water heating and space heating. • Developing and updating standards for identified products with potential for significant energy savings such as electric storage water heaters, heat pump water heaters, televisions and external power supplies. • Assist businesses importing and manufacturing regulated products to meet product standards and ensure poorly performing products are not available to be sold in New Zealand. • Providing information and product labelling to improve consumer decision making when purchasing electrical appliances. • Implement product standards developed in 2011/12. Focus on education and information to ensure products newly brought into the programme meet required standards. 	2.0
Total of all levy-funded efficiency activities		13.0

F.19 The programmes address barriers to natural uptake of efficiency improvements in order to provide immediate value to participants in the programme as well as help to diminish the scope or size of the barrier and, over time, remove the need for intervention.

F.20 Barriers and programme priorities may change over time, as a result of the emergence of specific (previously unrecognised) technology or market opportunities. Should such an event occur during the course of 2013/14, any change in priorities will be made with reference the objectives outlined above. That is, any changes to the programme content will be subject to economic cost-benefit analysis and prioritisation assessment to ensure that levy payers' funds are targeted to deliver cost-effective solutions.

Future levy funding options

F.21 With our focus on making the best investment with the appropriation in coming years we consider there are future options available to us that will provide a solid return to all levy payers.

F.22 Commercial buildings consume significant quantities of electricity and represent an important area of future programme development.

F.23 Programmes to address efficiency in industrial motorised systems and compressed air systems have been very successful and these programmes will continue to be developed.

F.24 EECA has the mandate to recommend establishing and upgrading minimum energy standards and labelling for appliances and products. EECA has made significant savings through the application of standards and labelling to domestic,

commercial and industrial products, including electric water heaters, refrigerators, heat pumps, set top boxes, distribution transformers, electric motors, fluorescent lighting and computers. Savings from new and revised standards in domestic appliances are measured annually and contribute to significant energy savings in homes as well as the commercial sector.

- F.25 Clear opportunities also exist for domestic electricity users – water heating, electronics, refrigeration and space heating in residences fall into the top ten largest uses of electricity in New Zealand. With domestic consumers, a large number of users each use a small amount of energy, and our use of levy funds needs to be tailored with this in mind. Advertising, awareness raising and encouraging action are valid and important tools despite the difficulty in attributing actual energy savings.
- F.26 Work to update our understanding of potential energy savings has been ongoing since the KEMA potentials model and Household Energy End-use Project studies were completed. A more detailed update of data on potential energy savings is planned for the near future.

Forecast performance

- F.27 By the end of 2013/14, EECA is forecasting, since 2006:
- (a) cumulative annual savings of 1,503 GWh;
 - (b) 490 MW reduction in peak demand;
 - (c) present value of savings of around \$968⁹ million; and
 - (d) at a cost to the levy of less than 2 c per kWh saved.

⁹ The reduction of the industrial electricity cost of supply from 12.2 c/kWh to 9.6 c/kWh in the MED datafile (2010) has reduced the value of the savings since last year despite increased electricity savings.