



2012/13 Appropriations, Authority Path to CRE, and EECA work programme

Consultation Paper

Released 29 November 2011

Submissions due 9 January 2012

NB The consultation period includes the Christmas break when the offices of EECA and the Authority will be closed (24 December 2011 to 8 January 2012 inclusive)

Glossary of abbreviations and terms

Act	Electricity Industry Act 2010
Authority	Electricity Authority
CAB	Citizens Advice Bureau
Code	Electricity Industry Participation Code 2010
CRE	Competition, reliability and efficiency (components of the Authority's statutory objective)
DD	Dispatchable demand
DSBF	Demand side bidding and forecasting
EECA	Energy Efficiency and Conservation Authority
EIEP	Electronic Information Exchange Protocol
EMI	Electricity Market Information software
FTR	Financial transmission right
MCA	Ministry of Consumer Affairs
MED	Ministry of Economic Development
MEP	Metering equipment provider
Minister	Minister of Energy and Resources
MUoSA	Model use of system agreement
NZEECS	New Zealand Energy Efficiency and Conservation Strategy
NZES	New Zealand Energy Strategy
PCC	Public conservation campaign
RAG	Retail Advisory Group
SO	System operator
SOI	Statement of Intent
SOSPA	System Operator Service Provider Agreement
SRC	Security and Reliability Council
TPAG	Transmission Pricing Advisory Group
UTS	Undesirable trading situation
VoLL	Value of lost load
WAG	Wholesale Advisory Group

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1. Introduction

- 1.1.1 Submissions are sought on the proposed 2012/13 annual appropriations for the Electricity Authority (Authority), and those activities of the Energy Efficiency and Conservation Authority (EECA) and the Ministry of Consumer Affairs (MCA) that are funded by the levy on industry participants. The appropriation consultation period commences on 29 November 2011 and submissions are due by Monday 9 January 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 2012. 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, EECA or MCA depending which appropriations and work priorities on which you are commenting. Please refer to appendix B for instructions on making a submission(s) and for the process and timetable.
- 1.1.4 In addition to appropriations information, this consultation paper includes the following appendices:
- Appendix C provides additional information about the Authority's outputs for 2012/13;
 - Appendix D includes the draft Path to Competition, Reliability and Efficiency (CRE) three-year plan; and
 - Appendix E provides additional information about EECA's levy-funded electricity efficiency programme priorities for 2012/13.
- 1.1.5 Additional information about the Authority's 2012–15 planning process is available at: <http://www.ea.govt.nz/our-work/2012-15-planning>
- 1.1.6 The timetable for the planning process is summarised in appendix B. It should be noted that:
- finalisation of appropriation proposals is subject to consideration of feedback from this consultation process, further consideration of priorities by each agency, and discussion with the Government;
 - input from this consultation will be used by the Authority and EECA 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 2012 (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 MCA. Key points to note in the proposed appropriations are:

- a new **security management** appropriation is included for the Authority that was established in the 2011 Budget for the Authority to fund public conservation campaigns (PCCs) run by the system operator should they arise. The appropriation is \$6 million over five years;
- the Authority's **reserve energy and emergency measures—availability costs** and **reserve energy and emergency measures—variable costs** end on 30 June 2012 and therefore no funding is sought for these appropriations for 2012/13;
- the Authority's **electricity industry governance and market operations** appropriation is increased by \$1.371 million to help fund implementation costs for section 42 projects and a contractual CPI adjustment in the System Operator Service Provider Agreement (SOSPA); and
- the EECA **electricity efficiency** appropriation is increased by \$2.5 million.

Table 1: Appropriations proposal

Appropriation	(\$ million)		
	2010/11 8 months actual	2011/12 appropriations	2012/13 appropriations proposal
Electricity Authority			
Electricity industry governance and market operations	37.698	62.535	63.906
Reserve energy and emergency measures—availability costs*	15.687	6.200	-
Reserve energy and emergency measures—variable costs**	0.205	4.662	-
Security management	NA	NA	6.000 over 5 years
Promoting and facilitating customer switching	1.499	3.500	3.500
Electricity Authority litigation fund***	0.111	0.444	0.444
Ministry of Consumer Affairs (MCA):			
Promoting and facilitating customer switching	1.498	1.402	1.100
Energy Efficiency and Conservation Authority (EECA)			
Electricity efficiency	8.570	13.000	15.500

Notes to table 1:

- * This appropriation will end when the Authority's obligations in the Whirinaki supply agreement with the Crown are completed.
- ** This appropriation is expected to be replaced by the Security management appropriation to take effect from 1 July 2012.
- *** The Electricity Authority litigation fund appropriation is to provide funding to ensure that the Electricity 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.

2.2 Electricity industry governance and market operations

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 includes board members' costs, costs for the Security and Reliability Council (SRC) and advisory groups, supporting the Rulings Panel, and the general operations of the Authority, including the following functions required by the Act:

- operation of the electricity system and markets;
- market development;
- compliance;
- industry monitoring and information; and
- security of supply governance.

2.2.2 While a detailed budget has not yet been prepared for the 2012/13 year, table 2 below provides an indication of the expected breakdown of major costs within the **electricity industry governance and market operations** appropriation. Note that the major change is an increase to service provider costs which are primarily for the implementation of the new matters required by section 42 of the Electricity Industry Act 2010 (see the following section for details).

2.2.3 Savings have been achieved in the core operating costs of the Authority. Further savings arise in individual service provider costs as a result of contractual fee decreases. These savings have been used to partially fund the additional costs arising from Code implementation projects, particularly section 42 projects, which are estimated to be \$2.188 million in 2012/13. The additional appropriation required in 2012/13 to fund the balance of the Code implementation costs is \$1.371 million.

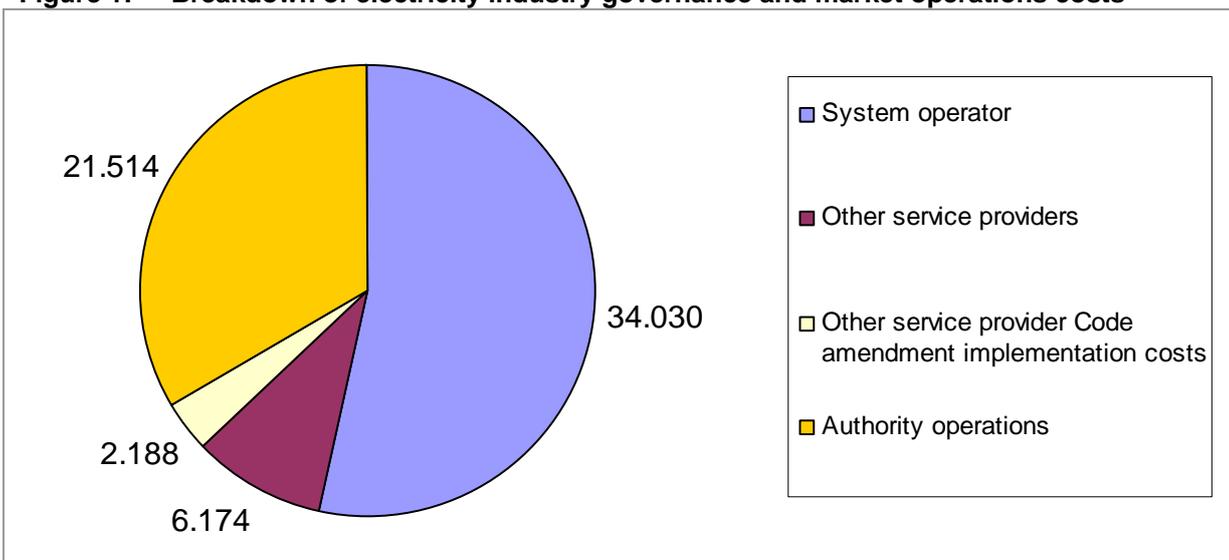
2.2.4 Refer to paragraph 2.2.10 for further information on the range of Code implementation projects underway.

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

Budget item	(\$ million)		
	2010/11 budget 1 Nov 2010– 30 Jun 2011 (8 months)	2011/12 budget 1 Jul 2011 – 30 Jun 2012	2012/13 estimate 1 Jul 2012 – 30 Jun 2013
System operator—operating expenses	14.640	22.815	23.972
System operator—capital-related expenses	5.279	11.061	10.058
Sub total—system operator	19.919	33.876	34.030
Service provider—clearing manager	1.140	1.783	1.416
Service provider—wholesale information and trading system	0.989	1.540	1.379
Service provider—pricing manager	1.133	1.691	1.615
Service provider—reconciliation manager	0.854	1.332	1.350
Service provider—registry	0.259	0.432	0.414
Service provider—Code implementation costs			2.188
Sub total—Other service providers	4.375	6.778	8.362
Authority operations—external advice	6.679	8.556	8.043
Authority operations—personnel	4.616	7.646	8.483
Authority operations—other operating costs	4.076	5.679	5.458
Sub total—Authority operations	15.371	21.881	21.514
Total—Electricity industry governance and market operations	39.665	62.535	63.906

2.2.5 Figure 1 shows the major categories for 2012/13 estimated costs.

Figure 1: Breakdown of electricity industry governance and market operations costs



Proposed change in electricity industry governance and market operations appropriation

- 2.2.6 Additional funding is required to cover the implementation of a number of the section 42 new matter projects, and other major Code amendment implementation. The 2011-2014 Statement of Intent included funding of \$0.861 million that the Authority set aside from savings within the existing appropriation for Code amendment implementation costs in 2012/13.
- 2.2.7 The majority of this funding has been retained to offset estimated Code implementation costs. The increase of \$1.371 million is required to cover the balance of the estimated Code implementation costs of \$2.188 million.
- 2.2.8 At the time of releasing this paper the costs of implementing a number of the section 42 projects have not been finalised. For example, the FTR manager has yet to be selected, the evaluation of tender proposals is underway but not complete. In addition, discussions are still in progress with NZX regarding the exact costs for the clearing manager to implement FTR code amendments. Discussions are also underway on the implementation of scarcity pricing.
- 2.2.9 CPI increases arising from the system operator service provider agreement and other market operation service provider agreements are being funded from within the current baseline. This will need to be reviewed in subsequent years as this was achieved from one off contractual decreases in 2012/13.
- 2.2.10 The estimated additional cost of \$2.188 million in 2012/13 for implementing Code amendments is in line with the cost benefit assessments included in the respective Code amendment approval processes. Increased costs are forecast for the following projects:
- (a) demand side bidding and forecasting;
 - (i) an estimate from NZX for software development for the wholesale information trading system has been received that will result in increased software amortisation costs;
 - (b) financial transmission rights;
 - (i) ongoing operating costs for the new FTR manager (still subject to a tender process);
 - (ii) depreciation and amortisation for new software and hardware for systems run by the FTR manager (still subject to a tender process);
 - (iii) an initial estimate has been received from NZX for increased operating costs for the clearing manager;

- (iv) an initial estimate has been received from NZX for software development for the clearing manager and this will result in software amortisation costs;
- (c) Part 10—registry changes;
 - (i) an estimate has been received from Jade for software development for the registry that will result in software amortisation costs;
- (d) scarcity pricing;
 - (i) final costs are not yet available—discussions are in progress with the system operator and the pricing manager on software changes that will be required to implement scarcity pricing.

2.2.11 The Authority is due to report to the Minister in early February 2012 on funding required for 2012/13. As greater clarity is achieved in the coming weeks on the implementation costs for the above projects, the appropriation proposal will be refined to include only costs reasonably expected to be incurred during 2012/13. The Authority considers that its current estimates are as complete and accurate as possible at present. It is not considered likely that costs will be higher than estimated. However, as the costs are estimates, there remains a possibility that final costs may be higher.

2.3 Security management appropriation

- 2.3.1 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.
- 2.3.2 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.
- 2.3.3 The costs of this function are currently met from the **reserve energy and emergency measures—variable** appropriation, which expires on 1 July 2012.
- 2.3.4 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.

2.4 Promoting and facilitating customer switching

- 2.4.1 The proposal for funding for this appropriation is unchanged from that approved by Cabinet as a part of the electricity reforms in 2010. 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 Ministry of Consumer Affairs (MCA) in a multi-year appropriation through Vote Consumer Affairs for upgrading and promoting the Powerswitch website; and
 - \$10.5 million is administered by the Authority to encourage consumers to compare the benefits of switching retailers.
- 2.4.2 In 2012/13 we expect to be continuing with the successful What's My Number campaign that was launched on 29th May 2011. Planning is currently underway around programme design and delivery. Most of the campaign activity will again take place over the winter months across the 2011/12 and 2012/13 financial years.
- 2.4.3 Programmes working with the likes of the Citizens Advice Bureau will also be reviewed and considered for extension during 2012/13. Further work is also being undertaken in the remainder of 2011/12 on establishing a small business tariff comparison web tool and this work will continue into 2012/13.

2.5 Electricity efficiency

- 2.5.1 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.
- 2.5.2 EECA proposes to request funding of \$15.5 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 E of this paper.

3. Levy Rates

- 3.1.1 The Crown is reimbursed for the cost of the Authority, MCA Powerswitch costs, 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 currently 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 2012/13 Authority budget. They are indicative of the rates that will be used for invoicing in 2012/13. Actual invoicing levy rates will be determined after the 2012/13 budget has been finalised.

Table 3: 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	0.1506	0.4075						0.0441
Purchasers	0.1518	0.4109		0.0387		0.3672		0.0445
Retailers			0.8303				2.4846	
Distributors (incl Transpower)	0.0845							0.0248
Distributors (excl Transpower)			0.8304					
Transpower					0.0245			

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 2012/13 financial year. It includes:

- the Authority's proposals;
- EECA's proposals for levy-funded electricity efficiency programmes; and
- the customer switching fund (Authority and MCA appropriations)¹.

¹ Note that although the MCA is not statutorily required to be included in the consultation process, the MCA 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

Making submissions to the Authority

- B.1 Submissions should be made to the Authority about the appropriations it administers and the Authority outputs (appendix C) and draft Path to CRE (appendix D).
- B.2 Information about the Authority and current projects are on the Authority's website at www.ea.govt.nz. If you have questions about this consultation paper, please contact Kevin Lampen-Smith, General Manager Corporate Services on (04) 460 8869 or kevin.lampen-smith@ea.govt.nz
- B.3 The preferred format of submissions is electronic, in Microsoft Word if possible. It is not necessary to send hard copies of submissions sent electronically. Submissions should be emailed to submissions@ea.govt.nz with **Consultation paper—2012/13 appropriations** in the subject line.
- B.4 Submissions should be received by 5pm on 9 January 2012. Please note that late submissions will not be considered. NB The consultation period includes the Christmas break when the Authority office will be closed (24 December 2011 to 8 January 2012 inclusive).
- B.5 If you do not wish to send your submission electronically, you should send one hard copy of the submission to the address below.

POST:

Submissions
Electricity Authority
PO Box 10041
Wellington 6143

COURIER:

Submissions
Electricity Authority
Level 7, ASB Bank Tower
2 Hunter Street
Wellington

FAX:

04-460 8879

- B.6 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.

Making submissions to EECA

- B.7 Submissions should be made to EECA in regard to the electricity efficiency appropriation and the proposed electricity efficiency work programme (appendix E). Submissions should be sent to: levyconsultation@eecca.govt.nz
- B.8 Submissions should be received by 5pm on 9 January 2012. Please note that late submissions will not be considered. NB The consultation period includes the Christmas break when the EECA office will be closed (24 December 2011 to 8 January 2012 inclusive).

- B.9 Information about EECA and current projects may be found on the EECA website: www.eeca.govt.nz
- B.10 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. 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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Ministry of Consumer Affairs

- B.11 Formal consultation is not required by the Ministry of Consumer Affairs (MCA).
- B.12 However, if you have questions about Powerswitch, please contact Liz Stretton, Manager Consumer Capability and Information, Ministry of Consumer Affairs, PO Box 1473, Wellington, or liz.stretton@mca.govt.nz

Timetable

- B.13 Table 4 provides the timetable for submissions on the appropriation proposals, and for completing the planning documents for the 2012–2015 period.

Table 4: Timetable

Deliverables	Completion date
Appropriation consultation period	29 November 2011 to 9 January 2012 Please note that late submissions are unlikely to be considered given the tight timeframe for review of submissions
Presentation and discussion at regulatory managers' meeting	21 December 2011
Appropriation reports provided to responsible Ministers	End of January 2012
Statements of Intent published	May 2012 (published the day after Budget day)

Appendix C Proposed Authority Outputs

- C.1 This appendix provides additional information to assist stakeholders to understand the more detailed thinking underlying the Authority's appropriations proposal.
- C.2 This section sets out the Authority's outputs and performance measures as they would be presented in the Statement of Intent. Comments are sought about the proposed performance measures for 2012/13 (those in dark red text in the tables that follow). Current year performance measures are included for comparison purposes, and are not intended to change as this would involve changes to the current SOI.
- C.3 Details about the draft Path to CRE three-year plan, including the Authority's proposed projects, are included in appendix D.

Output class 1: Electricity industry governance and market operations

- C.4 The electricity industry governance and market operations output class provides for the operation and governance of New Zealand's electricity market under the Act, regulations and Code. This output class includes the general operations of the Authority, including Board members' costs, the Security and Reliability Council (SRC), Rulings Panel, Advisory Groups, and the operation of the electricity system and market operations as detailed below. The following sections address the major areas of work:
- operation of the electricity systems and markets;
 - market development;
 - compliance; and
 - industry and market monitoring and information.

Operation of the electricity system and markets

Description

- C.5 The Authority is responsible for:
- day-to-day operation of the electricity system and the wholesale (including ancillary services) and retail markets in accordance with the Code through contracts with third parties or 'service providers';
 - providing support to the Security and Reliability Council;
 - performing the functions of the market administrator;
 - maintaining the register of industry participants;

- granting individual exemptions to the Code where justified²;
- providing education to improve knowledge across the market;
- investigating and resolving alleged undesirable trading situations;
- monitoring the implementation of voluntary arrangements, model agreements and guidelines;
- approving/declining security of supply policies and plans proposed by the system operator (Parts 7 and 9 of the Code);
- carrying out responsibilities for supply shortage declarations, if needed (Part 9 of the Code); and
- implementation of Code amendments where action is required by the Authority or its service providers.

Authority performance measures

Performance measure	1 November 2010 – 30 June 2011 target	1 July 2011 – 30 June 2012 target	1 July 2012 – 30 June 2013 forecast	1 July 2013 – 30 June 2014 forecast
Complete implementation of Code amendments for new matters in section 42(2) of the Act	Publish quarterly updates On track for completion of Code amendments, or report to Minister by 1 November 2011	Code amendments completed, where required Report provided to the Minister by 1 November 2011	Implementation completed	NA
Effective contract management for the system operator, clearing manager, pricing manager, wholesale information and trading system, reconciliation manager, registry and a new FTR manager in accordance with the service provider contracts, the Act, regulations and Code	Contract management and monitoring actions completed as appropriate*			
The Security and Reliability Council is supported	Established by 31 March 2011	Three meetings a year The scope, quality and timeliness of SRC support meets or exceeds the expectations of the chair		

Notes:

* Contract management and monitoring actions include annual performance reviews, system audits, monitoring of service provider reports, regular meetings, and addressing significant issues, as necessary. The Authority also monitors maintenance of insurance certificates for wholesale and retail market service providers. Much of this information is published on the Authority's website.

² Class exemptions are made by Order in Council on the recommendation of the Minister (section 110 of the Act).

Market development

Description

C.6 The Authority develops market facilitation measures (voluntary) and the Code relating to the electricity sector. It may also advise the Minister of Energy and Resources on beneficial changes to statutory regulations and statutory provisions. Market development work is undertaken by the Authority in conjunction with Advisory Groups comprising industry participants and consumer representatives, including substantial consultation with stakeholders. Proposed projects for 2012/13 and outyears are covered in detail in appendix D.

Authority performance measures

Performance measure	1 November 2010 – 30 June 2011 target	1 July 2011 – 30 June 2012 target	1 July 2012 – 30 June 2013 forecast	1 July 2013 – 30 June 2014 forecast
Sound development processes followed for facilitation measures and Code amendment proposals, enabling effective implementation by the sector	Draft Consultation Charter consulted on and published Draft Advisory Group Charter consulted on and published	Work completed on Code amendment proposals meets the standards of the Consultation Charter and Code change principles The scope, quality and timeliness of Advisory Group support meets or exceeds the expectations of the independent chairs All Code change proposals and implementation plans include impact assessment based on consultation with relevant parties		
The number of successful legal challenges to the Authority's code development activities.	No successful legal challenges	No successful legal challenges	No successful legal challenges	No successful legal challenges

Compliance

Description

- C.7 The Authority is responsible for monitoring compliance with the Act, regulations and Code and investigating and enforcing compliance with Parts 2–4 of the Act, regulations and Code.³

Authority performance measures

Performance measure	1 November 2010 – 30 June 2011 target	1 July 2011 – 30 June 2012 target	1 July 2012 – 30 June 2013 forecast	1 July 2013 – 30 June 2014 forecast
The number of Act, Code and regulation breach notifications closed	100–130	150–200	100–200*	100–200*
The percentage of notifications of alleged breaches completed within three months of notification	70%	75%	77.5%	80%
The percentage of notifications of alleged breaches completed within six months of notification	85%	85%	85%	85%

Note:

* The 2011–14 SOI forecast range was 150–200. This has been revised due to a two year declining trend in the number of notifications.

³ Some restrictions on lines businesses, previously contained in the Electricity Industry Reform Act, were replaced by Part 3 of the Electricity Industry Act. Exemption applications under the Act provisions are to be assessed by the Authority. Previously Electricity Industry Reform Act exemptions were assessed by the Commerce Commission.

Monitoring and information provision

Description

- C.8 The Authority collects and publishes wide-ranging information to facilitate the efficient operation of the electricity system and markets, which may include:
- monitoring the competitiveness, reliability, and efficiency of the electricity industry to identify areas for further Code development, publishing relevant reports, and undertaking any reviews requested by the Minister under section 18 of the Act;
 - providing information to the market, ranging from real-time through to time-series analysis;
 - publishing fact sheets about how the market works and key facts about the market; and
 - publication of data and tools to support analysis of the electricity industry.

Authority performance measures

Performance measure	1 November 2010 – 30 June 2011 target	1 July 2011 – 30 June 2012 target	1 July 2012 – 30 June 2013 forecast	1 July 2013 – 30 June 2014 forecast
Reviews requested by the Minister under section 18 of the Act	Completed by agreed timetable The scope, quality, and timeliness of reports meet or exceed the Minister's expectations*			
Annual assessment of market performance published	Update report by 30 June 2011**	First market assessment report by 30 June 2012	Annual assessment report by 30 June 2013	Annual assessment report by 30 June 2014
One or more fact sheets published		One or more fact sheets published by 30 June 2012	One or more fact sheets published or updated	One or more fact sheets published or updated
NEW MEASURE - Publication of data and tools to support analysis of the electricity industry		Initial data warehouse and EMI ** available by January 2012	Extension of EMI to include capability to model medium- and long-term system operation and capital investment	Data visualisation and monitoring tools published as part of EMI /Data warehouse

Notes:

* Aggregate response to survey for each report.

** EMI – Electricity Market Information software – system to enable replication of final pricing

Output class 2: Promoting and facilitating customer switching

Description

- C.9 Section 16(1)(i) of the Act requires the Authority to promote to consumers the benefits of comparing and switching retailers. Funded by an appropriation of \$10.5 million over four years (commencing on 1 November 2010 and expiring on 30 April 2014), this output class is for promoting the potential benefits of switching, and facilitating the ease of the switching process for consumers.
- C.10 The Authority programmes aim to encourage consumers to compare the benefits of switching retailers. The impact sought is an increased propensity to switch. The outcome sought is increased competitive pressures in the retail market.
- C.11 The Authority coordinates its work, as appropriate, with the Ministry of Consumer Affairs (MCA), which is responsible for upgrading the capability of Consumer New Zealand's Powerswitch website, and promoting and facilitating the use of the website to consumers.

Authority performance measures

Performance measure	1 November 2010 – 30 June 2011 target	1 July 2011 – 30 June 2012 target	1 July 2012 – 30 June 2013 forecast	1 July 2013 – 30 June 2014 forecast
Request for proposals process completed and contracts awarded for programme delivery	Initial programme by 31 March 2011	Ongoing programme delivery—specific programme deliverables to be determined		Programme delivery wrapped up 30 April 2014 Evaluation report completed
Communication programme implemented	Information campaign commenced	Ongoing information campaign delivered Periodic monitoring survey completed		
Switching facilitation and online tool providers programme implemented	-	Programme commences by 30 July 2011	Ongoing programme delivery Further tender processes for programmes run, as necessary	

Output class 3: Security management

Description

- C.12 The security management appropriation and output class starts on 1 July 2012, replacing the Reserve energy and emergency measures—variable costs appropriation.
- C.13 This appropriation is limited to the management of emergency events by the system operator, if required, including:
- increased monitoring and management responsibilities in the event of an emerging security situation; and
 - planning and running a public conservation campaign.

Authority performance measures

Performance measure	2012/13 – 2014/15 target
Security management is delivered in accordance with the system operator's contract and the Code	Contract management and monitoring actions completed as appropriate*

Note:

* There were no performance measures for 2011/12 as the appropriation starts on 1 July 2012. Contract management and monitoring actions include monitoring of monthly reports, approval/decline of requests in accordance with the contract, and completion of the annual review.

Appendix D Draft Path to Competition, Reliability and Efficiency (CRE)

Introduction

- D.1 The Authority commenced operations on 1 November 2010 with an initial focus for its first year of operation set around: meeting the requirements of s42 of the Electricity Industry Act 2010 (Act); implementing its new functions, establishing its Advisory Groups; and engaging with the sector.
- D.2 The Authority is now over a year into its journey, making it timely to develop a longer-term strategic direction to achieve the statutory objective and vision of the Authority.
- **Statutory objective** (s15 of the Act): The objective of the Authority is to promote competition in, reliable supply by, and the efficient operation of, the electricity industry for the long-term benefit of consumers.
 - **Vision** (initially set out in the 2011–2014 SOI): to be recognised as a world class electricity regulator.
- D.3 This appendix sets out:
- the **2012–15 planning and Path to Competition, Reliability and Efficiency (CRE)** context and planning work to date;
 - in order to provide context for the 2012–2015 priorities and projects, the appendix outlines **Authority project work to date**, including projects that are expected to be completed in the current year, which therefore will not appear in the 2012–2015 work programme;
 - the **Path to CRE priority areas** identified as a result of the work to date;
 - a summary of the proposed **project priorities, by priority area and year**, providing a visual summary of the key projects within each priority area, and an indication of the possible key steps and duration of project work; and
 - a series of tables setting out **project details**.

2012-15 Planning and Path to CRE

Statutory objective and vision

- D.4 The Path to CRE addresses the three dimensions of the Authority's statutory objective. Specifically, the following outcomes sought (referred to as CRE aspirations) are:

- **Competition (C):** Widespread confidence among investors and consumers in the competitiveness of New Zealand's wholesale and retail electricity markets (within the bounds of a small economy that is unable to import electricity);
- **Reliability (R):** Widespread acceptance among consumers of efficient levels of supply reliability across the 'supply chain' (generation, transmission, distribution, and retailing); and
- **Efficiency (E):** Widespread recognition that New Zealand's wholesale and retail electricity markets, and transmission and distribution arrangements, are efficient mechanisms for coordinating electricity production and consumption, and for facilitating timely and innovative investment in the electricity system.

D.5 As underlined in the above statements, the CRE aspirations emphasise the Authority's focus on perceived performance, not just actual performance, but perceptions will be strongly influenced by actual performance over time.

D.6 Achievement of the Path to CRE is delivered through the way we work to implement the vision: **to be recognised as a world class electricity regulator**. This means:

- **Quality of regulation:** Having a Code that meets all three dimensions of the statutory objective—competitive, reliable and efficient—and is consistent with international best practice. Principles of Quality of Regulation such as fairness of process, sound consultation, credibility, predictability and transparency are consistently applied.
- **Operational excellence:** Having a high standard of outputs, clearly aligned to the desired outcomes.
- **Authority capability:** Having an operational model that meets:
 - government expectations of being cost effective for the delivered services;
 - the Authority's requirements for attracting and retaining appropriately skilled, knowledgeable staff; and
 - industry expectations of consultation, consistency, fairness, and a clear understanding of the commercial environment.

The planning process to date

D.7 The Authority has begun strategic planning to determine its work programme priorities for the period beyond 2012.

D.8 The first step in the planning process, completed in July–September 2011, was assessing public and electricity sector views related to the CRE aspirations by

conducting a survey of consumers, and a survey of investors and industry participants.

- D.9 In September 2011 the Authority held two strategic stakeholder sessions to review survey information, identify key regulatory issues, and possible new work programme items. These sessions were an Advisory Groups' forum and a CEOs and representatives forum.
- D.10 The survey reports and documents related to the strategic stakeholder sessions have been published on the Authority's website at: <http://www.ea.govt.nz/our-work/2012-15-planning/>
- D.11 The feedback from these processes has been used to identify key priorities and projects that deliver on these priorities. The projects are set out in this appendix for consultation. The feedback from this consultation process will input into the finalisation of the draft Statement of Intent (SOI) for provision for the Minister.

Authority project work to date

- D.12 As background to considering our appropriations and work priorities going forward, consideration has been given to the work completed to date by the Authority, work we expect to complete in the remainder of the current financial year and work that will continue from the current year into the 2012/13 year.
- D.13 It is notable that the Authority has succeeded in completing work on a number of projects, including addressing some long-standing issues. In addition, it is making good progress on other significant areas of work.
- D.14 The work completed to date, and that expected to be completed this year means that the Authority expects to have the capacity to move forward onto other areas of work during 2012/13. The planning process we are using is intended to ensure that a well considered and well prioritised set of projects is advanced that will give the optimum benefit in terms of our statutory objective.

Section 42 New Matters completed

- D.15 On 31 October 2011 the Authority reported to the Acting Minister of Energy and Resources on the successful completion of the requirements of section 42 of the Act. This was a major challenge for the Authority's first year of operation. The report also provided additional information about implementation requirements and timetable.
- D.16 The report was accepted by the Minister and has been published.
- D.17 The table below provides a summary of how the Act requirements were met and also provides implementation notes.
- D.18 Some further work, to follow from the completion of section 42, was identified in the report. This work has been incorporated into the project priorities set out later in this appendix.

Table 5: Summary of section 42 completion and implementation

Section 42(2) requirement	Completion summary	Implementation notes
(a) provision of compensation by retailers to consumers during PCCs.	Completed in accordance with s42(1)(a). Customer compensation scheme Code amendments gazetted on 3 March 2011.	The scheme came into effect on 1 April 2011. This scheme requires retailers to pay customers \$10.50 per week when a PCC is called by the system operator based on a predefined trigger.
(b) imposing a floor or floors on spot prices for electricity in the wholesale market during supply emergencies (including PCCs).	Completed in accordance with s42(1)(a) and (b) The solution involves two components: <ul style="list-style-type: none"> • scarcity pricing (a price floor and price cap) for certain emergency load shedding situations (gazetted on 28 October 2011); and • a 'stress test' regime (gazetted on 3 November 2011). 	Scarcity pricing: The Code comes into effect on 1 June 2013. Implementation requires software changes to be made by the pricing manager and system operator. Stress test: Participants are required to put in place the processes to provide quarterly stress test results and annual company declarations. The Authority will appoint an independent registrar to consolidate and present the results to the Authority. The first stress tests are expected to be publicised for application in the quarter starting 1 July 2012.
(c) mechanisms to help wholesale market participants manage price risks caused by constraints on the national grid.	Completed in accordance with s42(1)(a) Code amendments gazetted on 11 August 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.	The Code came into effect on 1 October 2011. The Authority is in the process of selecting an FTR manager. The FTR manager will prepare detailed design (such as the auction process) in an FTR allocation plan, to be approved by the Authority and implement its systems and processes. Software changes are also required to be made by the clearing manager. The Authority intends for trading to start on 1 October 2012. Regulations are required and are being developed.
(d) mechanisms to allow participants who buy electricity on the wholesale market to benefit from demand reductions.	Completed in accordance with s42(1)(a) Two projects completed and Code amendments made: <ul style="list-style-type: none"> • demand-side bidding and forecasting (DSBF); and • dispatchable demand (DD). DSBF improves demand forecasting, scheduled information and price sensitivities due to changes in demand. DD allows demand (at non-conforming nodes, typically large industrial consumers) to be dispatched in a similar fashion to generation. Both Code amendments were gazetted on 20 October 2011.	DSBF: Code amendments come into effect on 28 June 2012. Implementation requires software changes to be made by the system operator, by NZX to the wholesale information trading system, and by industry participants. DD: Code amendments come into effect on 27 June 2013. Implementation requires software changes to be made by the system operator and industry participants, including consumers who wish to participate in dispatchable demand.

Section 42(2) requirement	Completion summary	Implementation notes
<p>(e) requirements for distributors that do not send accounts to consumers directly to use more standardised tariff structures; and</p> <p>(f) requirements for all distributors to use more standardised use-of-system agreements, and for those use-of-system agreements to include provisions indemnifying retailers in respect of liability under the Consumer Guarantees Act 1993 for breaches of acceptable quality of supply, where those breaches were caused by faults on a distributor's network.</p>	<p>Completed in accordance with s42(1)(a) Code amendments gazetted on 28 October 2011.</p> <p>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.</p> <p>In addition, market facilitation measures are also being implemented, e.g. updated distributor Model use of system agreements (MUoSA).</p>	<p>The Code amendments, except as described below, will come into force from 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 UoSAs (for existing UoSAs) will apply from 1 July 2013; and</p> <p>(b) clauses relating to prudentials and consultation will apply from 1 May 2012. Relatively minor implementation work is required in each case.</p>
<p>(g) facilitating, or providing for, an active market for trading financial hedge contracts for electricity.</p>	<p>Completed in accordance with s42(1)(b). No Code amendments made.</p> <p>An active hedge market has been provided for without amending the Code.</p>	<p>The Authority has liaised with the large generators to facilitate standardised market-making agreements being put in place.</p>

Other completed items

- D.19 **Foundation documents:** the Authority has consulted on and published key documents addressing how it works:
- *Charter about Advisory Groups;*
 - *Consultation Charter* (including the Code amendment principles); and
 - *Interpretation of the Statutory Objective.*
- D.20 **Consumer switching:** the Authority has developed and implemented programmes to promote consumer switching, in particular the successful launch of the 'What's My Number' campaign.
- D.21 **Improving information:** the Authority has been improving its information gathering, analysis and information dissemination capacity. In the first year considerable emphasis was placed on specific investigations, provision of explanatory papers for key projects, and developing improved means of providing information. The Authority is now completing its first Market Performance Report.

Projects expected to be completed in 2011/12

D.22 In addition to completion of the section 42 new matters, a number of other projects within the current work programme are expected to be completed during the year. These include:

- metering Code (Part 10) amendments completed, with implementation to follow;
- registry data hub;
- review of plant commissioning Code; and
- frequency regulation—expand normal frequency band.

Path to CRE priority areas

D.23 Following the views expressed at the strategy sessions and the findings of the surveys, the Authority has identified five Path to CRE priority areas that capture the initiatives that the Authority intends to undertake in future years. These are:

- **Reducing barriers to entry**—This priority area contributes to improving competition and efficiency. It covers initiatives that are intended to lower or remove barriers to entry and also unnecessary barriers to expansion for firms operating in the electricity market. It relates to the competitive sections of the electricity market which are not natural monopolies (e.g. retail and generation segments). In particular, lower barriers to entry and expansion have the potential to increase competition and efficiency in the spot, retail, hedge, metering, frequency keeping, reserves market, and other ancillary services. Many of these markets were not widely considered to be competitive or efficient in the recent surveys.

Competition benefits will arise, because reduced barriers to entry and expansion will place pressure on firms to set prices close to their marginal cost of supply. If they are set above this, other firms will be encouraged and able to enter the market and compete away the margins, lowering price. This will give rise to efficiencies because prices above the marginal cost of supply cause consumers to forgo goods and services that they value more highly than the cost to supply them.

Over time as barriers to entry and expansion are reduced, the Authority envisages a more dynamic electricity market than currently; a market where parties can enter and exit easily and efficiently both in a geographical and sectoral sense, and compete with existing players either on price or service.

- **Improving market information and price signals**—This priority area is primarily concerned with initiatives which increase efficiency and reliability through greater demand and supply responsiveness to tight supply situations. The goal is to develop much more responsive demand and

supply sides by better signalling the cost of supply at different times. The Authority has recently completed design work on and is now implementing a number of projects that relate to this priority area, including Dispatchable Demand, Demand Side Bidding and Forecasting and the Scarcity Pricing and the Stress Test initiatives. These projects are a good start and can be further built on to provide for greater levels of price signalling to a wider group of customers and in some cases more refined and sophisticated mechanisms.

- **Operational efficiency**—This priority area contributes to improving efficiency. It encompasses initiatives that focus on reducing transaction and regulatory costs to improve the operational efficiency of the electricity market. In the simplest sense it is about lowering the costs that participants and consumers can transact and receive services and goods, to more closely reflect the actual cost required to provide them. Hence it involves identifying initiatives that lower transaction costs, and also initiatives that encourage firms to develop new programmes and processes that increase quality and productivity. In this regard, productivity gains in the electricity sector, especially labour productivity, flattened off in the mid years of the 2000–2010 decade, having risen sharply in the late 1990’s early 2000s.

The Authority expects that many of the gains to be achieved to operational efficiency will arise from initiatives developed under other priority areas, especially the reducing barriers to entry priority area, as increased competitive pressures will inherently encourage firms to drive for operational efficiencies. However, there remains the potential to secure ‘across the board’ industry-wide operational efficiencies, especially by reducing industry transactions costs and reducing the costs associated with regulation, in terms of its development, implementation and compliance.

In terms of particular areas of focus, there appears to be considerable scope to improve the operational efficiency of the reserves and ancillary markets which have widely been noted by participants and consumers alike, especially large consumers, as inefficient, for example in the area of prudentials and settlement.

- **Reviewing and monitoring**—This priority area is concerned with reviewing the effectiveness of Code amendments and section 42 initiatives post implementation, and fits within the wider market monitoring function at the Authority. The Authority monitors the electricity industry primarily for the purpose of informing possible Code amendments and market facilitation measures that advance the Authority’s objectives relating to competition, efficiency and reliability.

Further development of the monitoring function at the Authority will focus on monitoring the state of competition in the various markets that make up the industry. An important component of monitoring is the provision of reports and information, in an accessible format, that throw light on conduct or

performance issues that undermine effective competitive and efficient outcomes.

The post implementation reviews of section 42 and other initiatives will be directed toward ascertaining if expected benefits relating to competition have been achieved, or if further modification to those initiatives is warranted.

NB reviewing and monitoring projects are unlikely to directly result in Code amendment or market facilitation proposals and therefore do not feature in tables 7 to 9 below. If they do result in new proposals then those proposals will be incorporated in tables 7 to 9 in updated versions of the work programme.

- Education**—This priority area contributes to competition and reliability. It encompasses a broad range of initiatives that focus on informing consumers about the electricity market. The key intent is to build overall consumer confidence in the electricity market and build its credibility in terms of not only delivering on the day-to-day electricity needs of consumers but also in times of stress. In addition, the successful ‘What’s my number’ campaign has shown the benefits that can come from informing consumers and encouraging them to engage more actively.

NB Education projects are unlikely to directly result in Code amendment or market facilitation proposals and therefore do not feature in tables 7 to 9 below.

D.24 Table 6 shows how these three-year priority areas relate to the Competition, Reliability and Efficiency dimensions of the Authority’s statutory objective.

Table 6: Priority areas’ contributions to the statutory objective

Outcomes (statutory objective) →	Competition	Reliability	Efficiency
Priority areas (1–3 year focus) ↓			
Reducing barriers to entry			
Improving market information and price signals			
Operational efficiency			
Reviewing and monitoring			
Education			

Projects: listed by year and priority area

- D.25 The following tables identify key projects that are designed to contribute to the priority areas over the next three years. This includes existing and new project proposals.
- D.26 It should be noted that many of the projects support several of the priority areas, but for ease of presentation, the primary theme has been used here. For more about the links between the individual projects and the themes supported, see the tables that follow setting out project detail.
- D.27 The grey shading indicates the expected project life. While some projects will take several years to complete, there are a number of key projects the Authority expects to complete within the 2012/13 year, including:
- any remaining implementation required for section 42 new matters;
 - the metering review (Part 10) and its implementation, and related work on AMI guidelines and EIEPs;
 - the transmission pricing methodology review;
 - key ancillary services projects: phase 1 of the multiple frequency keepers, frequency keeper offer selection, and the AUFLS exemptions issue project; and
 - review of the UTS Code.

Important note regarding project deliverables for tables 7 to 9

It should be noted that for all projects the tables below are set out as if a Code amendment is required.

Projects may be ended or a different path decided upon at a number of points in the process, in particular after an initial investigation and CBA has been completed.

As it is not practical to set out a range of possible alternative paths in the tables, the Authority timetable is set as if Code amendment was required.

“Completion” in tables 7 to 9 means that Code amendments or market facilitation measures are completed, but does not necessarily indicate that implementation has been completed.

Table 7: Initiatives planned for completion in 2012/13

Project name	Primary priority area	New or existing
Half hour switching rules	Reducing barriers to entry	New
Clearing and settlement	Reducing barriers to entry	Existing
UTS provisions	Reducing barriers to entry	Existing
Market information: forward price curve	Improving market information and price signals	Existing
Improved market modelling of losses	Improving market information and price signals	New
Intermittent generation—asset owner performance obligations for under frequency and voltage	Improving market information and price signals	Existing
Transmission pricing	Operational efficiency	Existing
Under-frequency management and AUFLS	Operational efficiency	Existing
Gate closure	Operational efficiency	Existing
Retailer default provisions	Operational efficiency	Existing
Domestic contracting arrangements	Operational efficiency	Existing
AMI guidelines	Operational efficiency	Existing
Electronic Information Exchange Protocols	Operational efficiency	Existing
Constrained on costs	Operational efficiency	New
Frequency keeper offer selection	Operational efficiency	Existing
Security standards review and development	Operational efficiency	Existing
System security forecast	Operational efficiency	Existing
Review of system operator monthly reporting	Operational efficiency	Existing
Value of lost load	Operational efficiency	Existing

Table 8: Initiatives planned for completion in 2013/14

Project name	Primary priority area	New or existing
Locational price risk phase 2 (intra-island)—investigation and options	Reducing barriers to entry	New
Multiple frequency keepers phase 2 (island markets)	Reducing barriers to entry	Existing
Dispatchable demand phase 2 (conforming nodes)—investigation and design	Reducing barriers to entry	New
Purchase of power by retailers from small scale generation	Reducing barriers to entry	Existing
Pricing process improvement	Improving market information and price signals	Existing
Instantaneous reserves—cost allocation	Improving market information and price signals	New
Distribution pricing principles	Operational efficiency	Existing

Table 9: Initiatives planned for completion in 2014/15 or outyears

Project name	Primary priority area	New or existing
Short term hedge instruments	Improving market information and price signals	New
Ex ante pricing	Improving market information and price signals	New
Intermittent generation—Frequency keeping cost allocation	Improving market information and price signals	Existing
Instantaneous Reserves—cost information	Improving market information and price signals	New
Trading arrangements review (Part 13)	Operational efficiency	New
Grid reliability standards	Operational efficiency	Existing
Market response during management of extreme events	Operational efficiency	New
Grid owner offers review	Operational efficiency	New
Generator reserve offer algorithm	Operational efficiency	New
Maintenance of consumer service lines	Operational efficiency	New
Transmission: new connection process	Operational efficiency	New
Intermittent generation: market design	Operational efficiency	New
Must run dispatch auction	Operational efficiency	New

Project details

- D.28 This section sets out the Authority’s detailed proposals for projects for 2012/13 and out years.
- D.29 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 project develops.
- D.30 The tables that follow (tables 11 to 17) list the proposed projects using the project categories in table 10.

Table 10: Project categories

Tables	Comment
1. Implementation and review projects	Completing implementation of the new matters in s42(2) of the Act is being given high priority. The table also covers other projects where design and Code amendment work is scheduled to be completed by the end of 2011/12 and there is a material amount of implementation work in 2012/13.
2. Key projects: 2012/13	Key projects where Code or market facilitation deliverables are expected to be completed in 2012/13. Addresses key priorities, including completion of key existing projects and new priorities identified through development of the Path to CRE.
3. Second priority projects: 2012/13	Second priority projects where Code or market facilitation deliverables are expected to be completed in 2012/13. Includes completion of existing projects and new priorities identified through development of the Path to CRE.
4. Key projects: 2013/14 and outyears	Key projects where Code or market facilitation deliverables are <u>not</u> expected to be completed in 2012/13.
5. Second priority projects: 2013/14 and outyears	Second priority projects where Code or market facilitation deliverables are <u>not</u> expected to be completed in 2012/13.
6. Research projects	Areas where the Authority plans to carry out general research in order to consider whether further investigation and policy work, education or information projects are justified.
7. Future projects	These are projects that have merit but are scheduled for initiation after the 2012/13 year.

Coordination with the system operator

- D.31 Coordination is required with the system operator (SO) to manage progress across a range of projects. SO input is required either for Code development purposes, or for implementation. The coordination effort spans a range of matters including the level of detail required to initiate implementation planning, capacity, and timing of other initiatives (such as the implementation of pole 3 of the HVDC). Authority staff work closely with the SO to develop an agreed timetable and process for managing these initiatives. The ongoing process of coordinating affected projects may impact the prioritisation and timing of Authority projects.
- D.32 Where possible, indicative dates are provided for projects involving SO input, however it should be noted that detailed planning is required by the Authority and SO before more definitive timetables are completed. These will be advised in relation to specific projects, once available.

Notes to the project tables

- D.33 These notes apply to all project tables below (tables 11 to 17).
- D.34 **Project milestones**—The project tables below include milestones covering the 2012–2015 period, and in some cases beyond that period.
- D.35 **Project size key**—This addresses the overall estimate of project size, including direct Authority costs and staff time and level of consultant input from 2012/13 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).
- D.36 **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. The investigation and 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 11 to 17

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 CBA has been completed.

It is not practical to set out the range of possible alternative paths for each projects in the following tables. The Authority has set out the potential process and timetable as if 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.

1. Implementation and review projects

- D.37 The table below addresses existing projects that are at the implementation stage in 2012/13.
- D.38 Completing implementation is required for a number of the new matters in section 42(2) of the Act. These projects are being given high priority. Not all section 42 projects require a material implementation effort by the Authority and are not therefore covered in the table (implementation effort may still be required of participants). These include the Customer Compensation Scheme (CCS), More Standardisation project, and Hedge Market Development project.
- D.39 Information about all of the section 42 reports is available in the Authority's completion report to the Minister, which is available at: www.ea.govt.nz/our-work/programmes/priority-projects/
- D.40 The table below also covers other projects where design and Code amendment work is scheduled to be completed by the end of 2011/12, and there is a material amount of implementation work in 2012/13.
- D.41 Resources will also be allocated to completing post-implementation reviews for major projects in 2013/14 and 2014/15.

Table 11: Information about implementation and review of section 42 projects

Implementation and review: Core project information		
Project name	Description	2012/13 milestones
Scarcity pricing (s42(2)(b))	Implementing the scarcity pricing Code amendments	Complete scarcity pricing implementation by June 2013
Stress testing (s42(2)(b))	Stress testing (risk management disclosure)—implementation March 2012	Monitor and review stress testing
Locational price risk management: phase 1 – inter-island FTRs (s42(2)(c))	Implementation of inter-island FTRs to assist parties to manage spot price risks created by transmission congestion	Complete implementation - trading to commence October 2012 Commence monitoring from implementation
Dispatchable demand (DD): phase 1 implementation – non-conforming load (s42(2)(d))	Implementing DD Code to facilitate greater demand-side participation in the wholesale market, enabling demand to be dispatched in a similar way to generation—for nodes where bids are required	Complete implementation by June 2013
Demand-side bidding and forecasting (DSBF) implementation (s42(2)(d))	Implementing DSBF Code to facilitate greater demand-side participation in the wholesale market—making it easier for large electricity users to respond actively to wholesale market conditions. NB go live expected 26 June 2012	Monitoring and review
Metering review (Part 10) implementation	Completion of implementation of the Part 10 Code amended in 2011/12	Complete implementation by June 2013

2. Key projects for 2012/13

- D.42 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 projects where Code or market facilitation deliverables are expected to be completed in 2012/13. These include completion of key existing projects and new priorities identified through development of the Path to CRE.
- D.43 The table below sets out key projects where Code or market facilitation deliverables are expected to be completed in 2012/13.

Table 12: Information about proposed key projects where Code or market facilitation deliverables are expected to be completed in 2012/13

Key projects for 2012/13: Core project information					Initial Assessment	
Project name	Description	2012/13 milestones	2013/14 milestones	2014/15 and outyear milestones	Project size	Net public benefit
ANCILLARY SERVICES PROJECTS						
Under-frequency management	Existing (priority 3 in 2011/12) Implementation of an optimal mix of products and system operator tools to manage under-frequency events including Automatic Under-frequency Load Shedding (AUFLS)	Complete Code amendments System operator implements system changes/tools	New products implemented	Complete post implementation review in 2014/15	Small	High
Multiple frequency keepers	Existing (priority 2 in 2011/12) Developing frequency control systems that enable frequency keeping services to be simultaneously procured from multiple sources Phase 1 – practical implementation – implementing of a centralised frequency control system by the system operator. Includes continuing input from industry stakeholder group Phase 2 – market implementation – potential access to HVDC creation of a national frequency keeping market and extension to co-optimisation with energy and instantaneous reserves. Includes continuing input from industry stakeholder group	Complete phase 1: - System operator completes system changes/tools. - Complete modified ancillary services contracts	Complete phase 2 Code amendments	Complete phase 2 implementation	Medium	High
Frequency keeper offer selection	Existing Remove constrained on/off payments within the frequency keeping band	Complete Code amendments	-	-	Small	Medium

Key projects for 2012/13: Core project information					Initial Assessment	
Project name	Description	2012/13 milestones	2013/14 milestones	2014/15 and outyear milestones	Project size	Net public benefit
OTHER KEY PROJECTS						
Transmission pricing investigation	Existing (priority 2 in 2011/12) Review of options for the allocation methodology for transmission costs	Complete Code amendments	-		Large	High
Hedge market development	New Monitoring industry progress and developing further initiatives to improve the hedge market, including potential market-making cap contracts	Complete investigation and CBA Market facilitation measures or Code amendment	-	-	Small	High
AUFLS Code change (exemption issue)	Existing Addressing the current exemptions, which expire in September 2012. Code amendments have been consulted on but put on hold in relation to wider AUFLS work (NB high consequence leads to high CBA assessment)	Exemptions addressed	-	-	Small	High
Clearing and settlement	Existing (priority 2 in 2011/12) Review of the settlement and prudential security arrangements in the wholesale market Code (Part 14) WAG recommendations to Board expected in 2011/12	Complete Code amendments	Complete implementation	Complete post implementation review (2015/16)	Medium	High
Review of UTS provisions (if not completed in 2011/12)	Existing (priority 2 in 2011/12) Project to review Part 5 of the Code: UTS provisions and remedies The review covers: <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 	Complete Code amendments	-	-	Medium	High

Key projects for 2012/13: Core project information					Initial Assessment	
Project name	Description	2012/13 milestones	2013/14 milestones	2014/15 and outyear milestones	Project size	Net public benefit
Retailer default provisions	Existing Review of arrangements for managing retailer default. RAG recommendations to Board expected in 2011/12	Complete Code amendments	Complete implementation	-	Medium	Medium

3. Second priority projects for 2012/13

D.44 The table below sets out second priority projects where Code or market facilitation deliverables are expected to be completed in 2012/13. This includes completion of existing projects and new priorities identified through development of the Path to CRE.

Table 13: Information about proposed second priority projects expected to be completed in 2012/13

Second priority projects for 2012/13: Core project information					Initial Assessment	
Project name	Description	2012/13 milestones	2013/14 milestones	2014/15 and outyear milestones	Project size	Net public benefit
Gate closure	Existing (priority 3 in 2011/12) Review Code to allow participants to adjust bids and offers closer to the start of the trading period – allows more efficient use of generation and demand side resources	Finalise system operator investigation Complete Code amendments	Complete implementation	Complete post implementation review in 2015/16	Small	High
AMI guidelines	Existing Guidelines to be reviewed and updated in accordance with Part 10 changes and technical and operational changes	Complete and publish updated guidelines by December 2012	-	-	Medium	High
Authority data availability	Existing Making tools and data more accessible to industry participants, other interested parties, and the public in general. Includes Authority Data warehouse and EMI initiatives (initial data warehouse and EMI available by January 2012)	Extension of EMI to include capability to model medium- and long-term system operation and capital investment	Data visualisation and monitoring tools published as part of EMI /Data warehouse	Further development TBA	Large	High

Second priority projects for 2012/13: Core project information					Initial Assessment	
Project name	Description	2012/13 milestones	2013/14 milestones	2014/15 and outyear milestones	Project size	Net public benefit
Consumer education	<p>New</p> <p>Educate the general public about trade-offs (e.g. reliability vs. cost) and benefits that are delivered through a competitive market and resilience of the industry to adverse events</p>	<p>Hedge market booklet— information on spot price risk and mechanisms for managing that risk</p> <p>Fact sheets / '1 on the market', videos of markets and offer behaviour, update of <i>Electricity in New Zealand</i></p>	Ongoing development	Ongoing development	Medium	Medium
Participant education	<p>New</p> <p>Educate participants on the operation of the Code, with specific focus on new areas of Code development</p> <p>Includes:</p> <ul style="list-style-type: none"> • Refresh existing and complete new Guidelines to facilitate market operational knowledge • Subject specific industry fora • Alignment with compliance conference 	<p>Guidelines – how to be a retailer, how to be a generator, switching arrangements, how to complete stress test reporting, how to participate in dispatchable demand, how to participate in the FTR market</p>	<p>Guidelines – secondary networks, distributed un-metered load</p> <p>Refresh existing guidelines</p>	Ongoing development and refresh programme	Medium	Medium
Market information: forward price curve	<p>Existing (priority 2 in 2011/12)</p> <p>Amendments to the Code (or market facilitation initiatives) to improve information relating to the forward price curve, such as potential access to snow pack data, gas storage, coal storage, hedge position. WAG recommendations to Board possible in 2011/12</p>	Complete Code amendments	Complete implementation	Complete post implementation review (2015/16)	Small	Medium
Improved market modelling of losses	<p>New</p> <p>Improve the representation of losses in the system operator's scheduling, pricing and dispatch model (SPD) – provides for a lower cost market solution</p>	<p>Finalise system operator investigation</p> <p>Complete Code amendments</p>	Complete implementation	Complete post implementation review in 2015/16	Small	Medium

Second priority projects for 2012/13: Core project information					Initial Assessment	
Project name	Description	2012/13 milestones	2013/14 milestones	2014/15 and outyear milestones	Project size	Net public benefit
Intermittent generation: common quality	Existing (priority 2 and 3 in 2011/12) A range of initiatives to allow wind generation to be successfully integrated into the New Zealand electricity system (Fault ride through and normal frequency AOPOs expected to be completed in 2011/12)	Complete consultation and Code amendments and implement asset owner performance obligations for under-frequency and voltage		Complete consultation and Code amendments frequency keeping cost allocation.	Small	Medium
Electronic Information Exchange Protocols (EIEPs)	Existing Finalising the EIEPs work from 2011/12, if not completed in that year	Complete consultation and implementation Commence ongoing monitoring (BAU)			Small	Medium
Purchase of power by retailers from small scale generation	Existing Review of electricity regulatory barriers to investment in small scale distributed generation (under 10kW) (RAG project in 2011/12)	Complete investigation and CBA Complete options analysis and design Complete Code amendments	Complete implementation	-	Small	Low
Domestic contracting arrangements	Existing Monitoring: Alignment review commencing June 2012 on how the industry has applied the current minimum terms and conditions for domestic contracts Review: 2011/12 RAG project looking at Terms and Conditions consistency with the statutory objective and potential for alignment with medically dependent and vulnerable consumer guidelines. Development of contracting arrangements for conveyance agreements. RAG recommendations to Board expected in 2011/12	Monitoring: Complete review and decide whether further action is required, e.g. Code amendment Complete Code amendments Review: Complete Code amendments	Complete implementation	-	Small	Low
Extend Consumer Guarantees Act indemnity to Transpower	New Distributors are already required to indemnify retailers for breaches of the Consumer Guarantees Act. Consideration of extending this requirement to Transpower	Complete investigation and CBA Consult on and finalise Code amendment Implement	-	-	Small	Low

Second priority projects for 2012/13: Core project information					Initial Assessment	
Project name	Description	2012/13 milestones	2013/14 milestones	2014/15 and outyear milestones	Project size	Net public benefit
Half-hour switching rules	New Review of half-hour switching rules that will remove barriers to the switching of half-hour AMI – including consideration of a Code amendment proposal from Trustpower Exemptions have been granted to Genesis Energy, which expire in 2012	Complete investigation and CBA Complete Code amendments Complete implementation	Monitor effectiveness of changes	-	Small	High
Constrained-on costs	New Review the calculation and allocation of constrained-on costs to ensure efficiency (Code amendment proposal from the system operator)	Complete investigation and CBA Complete Code amendments	Complete implementation	-	Small	Low
System security forecast	New Review the need for a system security forecast to be produced by the system operator	Complete Code amendments	-	-	Small	Medium
Security standards review and development	Existing Review of the security standards in Part 7 of the Code. Specifically consideration of the creation of a summer security standard and reviewing the winter standards	Complete Code amendments	-	-	Small	Low
System operator monthly reporting	New Review value of system operator monthly reporting to industry	Complete Code amendments	-	-	Small	Low
Value of unserved energy - Value of lost load (VoLL)	Existing A review of the appropriateness of the current unserved energy (USE) value	Consult on and complete Code amendments		-	Medium	TBA

4. Key projects for 2013/14 and outyears

D.45 The table below sets out key projects in line with the Authority’s statutory objective and Path to CRE priority areas, where Code amendments or market facilitation measures are not expected to be completed in 2012/13.

Table 14: Information about proposed key projects for 2013/14 and outyears

Key projects for 2013/14 and outyears: Core project information					Initial Assessment	
Project name	Description	2012/13 milestones	2013/14 milestones	2014/15 and outyear milestones	Project size	Net public benefit
Locational price risk management: phase 2 – intra-island solution	New Introduction of a solution to intra-island price risk to assist parties to manage spot price risks created by transmission congestion	Complete investigation and CBA Complete options analysis and design	Complete Code amendments	Complete implementation	Medium	High
Ex ante final pricing	New Investigating the potential to finalise spot prices immediately prior to, during, or immediately after the trading period. Improved real-time price certainty to participants in the market leading to increased resource availability such as demand response and last resort generation	Complete investigation and CBA	Complete options analysis and design	Complete Code amendments Complete implementation in 2015/16	Large	High
Dispatchable demand (DD): phase 2 – conforming load	New Facilitating greater demand-side participation in the wholesale market – for nodes where centralised load forecasts are used rather than bids	Complete investigation and CBA Complete options analysis and design	Complete Code amendments	Complete implementation	Medium	Medium
Distribution pricing principles: review	Existing Review commencing March 2012 on how the industry has applied the distribution pricing principles	Complete review and decide whether further action is required, e.g. Code amendment Complete investigation and CBA Complete options analysis and design	Complete Code amendments Complete implementation	-	Medium	Medium
Instantaneous Reserves (IR) cost allocation	New First principles review of IR cost allocation. Determine if current method is efficient. Complete Code amendments and implementation if required	Complete investigation and CBA Complete options analysis and design	Complete Code amendments, Complete implementation	-	Small	TBD

5. Second priority projects for 2013/14 and outyears

D.46 The table below sets out second priority projects where Code or market facilitation deliverables are not expected to be completed in 2012/13.

Table 15: Information about proposed second priority projects for 2013/14 and outyears

Second priority projects for 2013/14 and outyears: Core project information					Initial Assessment	
Project name	Description	2012/13 milestones	2013/14 milestones	2014/15 and outyear milestones	Project size	Net public benefit
Market information: WITS enhancements	New Preparing a medium- to long-term strategy to develop the wholesale information trading system (WITS). Specifically with a view to capturing the needs of smaller and new entrant market participants such as demand aggregators, financial intermediaries, and non-participants	Develop report specification for WITS development and complete CBA	Complete implementation	-	Small	Medium
Pricing process improvement	Existing Improving the process by which prices are established, including: <ul style="list-style-type: none"> clarifying the inputs into final prices, including high spring washer; making the pricing Code more understandable; and reviewing provisional price situations (potentially accounting for delays due to stand alone dispatch) NB may be affected by ex ante final prices project	Complete options analysis and design, if not completed in 2011/12 Complete post implementation review of the interim period price Code amendment	Complete Code amendments Complete implementation	Complete post implementation review in 2015/16	Small	Medium
Short-term hedge instruments	New Consider the need for a short-term market for hedge instruments (e.g. day-ahead)	Initiate investigation and CBA	Complete investigation and CBA	Complete market facilitation measures / Code amendments	Small	Low
Trading arrangements (Part 13) review	New Review the Code relating to trading. Includes scheduling, dispatch, pricing, information and information disclosure	Commence investigation	Complete investigation and CBA	Complete Code amendments	Large	Medium

6. Research projects

D.47 The table below sets out research projects have been identified that are areas where the Authority plans to carry out general research in order to consider whether further investigation and policy work, education or information projects are justified.

Table 16: Information about proposed research projects

Research projects: Core project information			
Project name	Description	2012/13 milestones	2013/14 milestones
Scarcity pricing research	New Carry out research into the potential used of model-based approaches to scarcity pricing, for example the setting and application of price floors during PCCs (consideration of price floors that are dynamic rather than fixed)	Research completed	Model development
Distribution company arrangements	New Review efficiency of distribution network company arrangements	Research completed	-
Low-user fixed charges	New Review the low-user fixed charge regulations	Research completed	Complete
Efficiency of system operator arrangements	New Review service provider arrangements relating to system coordination and related market services.	Research completed	Complete

7. Future projects

D.48 The table below lists projects that have had an initial assessment as having merit but are scheduled for initiation after the 2012/13 year.

Table 17: Information about proposed future projects

Future projects: Core project information					Initial Assessment	
Project name	Description	2012/13 milestones	2013/14 milestones	2014/15 and outyear milestones	Project size	Net public benefit
Market response during management of extreme events	New Preparation of mechanism (e.g. guidelines or Code amendment) to provide for the market to continue to operate and produce efficient market outcomes during an extreme event	-	Complete investigation and CBA	Complete options analysis and design	Medium	Medium
Review of the Grid Reliability Standard (GRS)	Existing The GRS are a set of standards against which the reliability performance of the existing grid (or future developments to it) can be assessed. A review of the GRS was signalled to stakeholders when this Code was initially made in 2005	-	Initiate review	Complete review	Medium	Low
Grid owner offer review	New Review the Code provisions relating to grid owner offers (13.33)	-	Complete investigation and CBA	Complete options analysis and design	Small	Low
Generator reserve offer algorithm	New Review the generator reserve offer algorithm	-	Complete investigation and CBA	Complete options analysis and design	Small	Low
Instantaneous reserve (IR) cost information	New Add to the Code the necessary requirements to ensure that the system operator receives the information necessary to correctly allocate IR costs	-	Complete investigation and CBA	Complete options analysis and design	Small	Low
Maintenance of consumer service lines	New Addressing the consumer service line ownership issue. There is a need to look at the issues and possible long term solutions.	-	Complete investigation and CBA Complete issues and options	Complete Code amendment / recommendation for Act amendment Complete implementation	Small	Low
Transmission: New Connection process	New Investigating and considering options for regulating the process and requirements for new connections to the grid	-	Complete investigation and CBA Complete issues and options	Complete Code amendment Complete implementation	Small	Low

Future projects: Core project information					Initial Assessment	
Project name	Description	2012/13 milestones	2013/14 milestones	2014/15 and outyear milestones	Project size	Net public benefit
Intermittent generation: market design	New Consider further development of market mechanisms to address expected increases in levels of wind generation (taking into consideration that higher priority work to review the gate closure period may be sufficient in the short- to medium-term)	-	-	Complete investigation and CBA Complete options analysis and design	Medium	Medium
Must-run dispatch auction review (MRDA)	New Review the MRDA process (related to the intermittent generation: market design project)	-	-	Complete investigation and CBA Complete options analysis and design	Small	Low

Appendix E Proposed EECA Priorities

- E.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

- E.2 Prior to the Electricity Industry Act 2010 (Act), the Electricity Commission (Commission) had a levy-funded appropriation to further one of its principal objectives - to promote and facilitate the efficient use of electricity.
- E.3 In 2007, Cabinet approved an annual appropriation of up to \$17.5 million for the development of electricity efficiency programmes.
- E.4 From 1 November 2010, section 128 (3) (c) of the Act provides for electricity levy funding of EECA functions in relation to the encouragement, promotion, and support of electricity efficiency.
- E.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.
- E.6 This year, EECA is proposing a levy spend of \$15.5 million, up from \$13 million last year, to gain significant electricity efficiency savings, the key difference being the spending on electrical products performance standards. 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.

Electricity efficiency programme design and performance

- E.7 The 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.

- E.8 Investment in cost-effective electricity efficiency measures benefits electricity consumers by directly reducing costs and indirectly keeping downward pressure on electricity prices. The investment in efficiency also provides a better economic return than investment in new generation and transmission assets and, by reducing peak demand, assists security of electricity supply.
- E.9 With an investment of \$46 million since 2006, the levy-funded electricity efficiency programmes are estimated to have provided the following benefits (as at 30 June 2011):
- (a) Electricity savings of 638 GWh per annum
 - (b) Peak demand reduction of 274 MW
 - (c) Present value of savings estimated at \$430 million (valuing savings at 8.5 cents per kWh)
 - (d) Average levy cost of electricity savings of less than 2 cents per kWh, compared to the estimated marginal cost of new generation at 10 cents per kWh⁴.

EECA electricity efficiency programme priorities

- E.10 EECA takes its responsibilities for custodianship and use of levy payers' fund very seriously. The focus for 2012/13 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.
- E.11 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
 - (d) Standards and labelling for electrical equipment and appliances
- E.12 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
 - (d) Budget constraints and investment capital prioritisation

⁴ Based on medium term hedge trades on the ASX with an allowance for transmission losses.

E.13 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.

E.14 The priority programme areas for 2012/13 included in EECA’s levy appropriation proposal are outlined in the table below.

Programme	Description	Proposed 2012/13 funding from levy (\$ million)
Efficient lighting product and systems	<ul style="list-style-type: none"> • Providing financial incentives, by way of targeted subsidies to address barriers around the high upfront cost of efficient lighting technology. • Training programmes to increase capability and expertise in efficient lighting products and design—covering lighting engineers, electricians and retail staff. • Providing information, standards, labelling and education to encourage uptake of efficient lighting technologies 	5.5
Commercial Buildings—heating, ventilation, air conditioning and refrigeration efficiency	<ul style="list-style-type: none"> • Building the capability of energy specialists, facilities managers, real estate agents and valuers to advise, recognise and implement improvements in commercial buildings and businesses. • 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. • Providing information, standards, labelling and funding incentives to commercial building owners to uptake economic opportunities. 	4.5
Industrial motors and motor systems	<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 repair/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 minimum energy performance standards for certain pumps and fans. 	3.0
Electrical equipment regulation, labelling and compliance	<ul style="list-style-type: none"> • Developing new specifications for identified products with potential for significant energy savings • 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 specifications developed in 2011/12. Focus on education and information to ensure products newly brought into the programme meet required standards. 	2.5
Total of all levy-funded efficiency activities		15.5

- E.15 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.
- E.16 Consequently, 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 2012/13, 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.

Programme funding

- E.17 Over the past three years the electricity efficiency programmes have been carefully developed and grown to keep pace with the market. The approach has been to conservatively lift investment and develop sound process and management to ensure sustained economic gains. It is intended to maintain that approach.
- E.18 The \$15.5 million of programme funding sought from the electricity levy is an increase of \$2.5 million from 2011/12 but is less than the \$17.5 million allowed by Cabinet. Proposed areas of activity are detailed in the table above. EECA believes there are credible economic opportunities to use the increased levy funding to build on the success to date in the following areas:
- (a) **Lighting:** Experience has shown that efficient lighting represents one of most cost effective opportunities to generate electricity savings. The focus to date on compact fluorescent lamps (CFL) in the residential sector has resulted in around 350 GWh of annual electricity savings at a cost of less than 0.5 c per kWh. In 2012/13 EECA intends to increase focus on the considerable untapped potential for efficient road lighting as well as lighting used by New Zealand businesses. This will be achieved by way of a combination of:
- (i) Increasing capability in the sector by way of focused training programmes for lighting engineers, council road lighting staff and commercial electricians.
 - (ii) Providing relevant and useful information and tools to allow businesses and councils to make better and more informed decisions about efficient lighting, in particular by increasing information focus on the technical and economic benefits of emerging highly efficient LED technology.
 - (iii) Providing information to homeowners on the energy saving benefits of lower energy lightbulbs.

- (iv) The judicious use of financial incentives to assist consumers to address the very real barrier of access to the upfront cost to implement lighting solutions which are efficient over time.
- (b) **Electrical product performance standards:** Minimum Energy Performance Standards (MEPS) and labelling programmes such as Mandatory Energy Performance Labelling (MEPL) and the Energy Star® run by EECA have helped to improve the efficiency of products and enabled consumers to choose products that use less energy.

Internationally recognised as the most cost effective way to improve energy efficiency, EECA has run a products programme since 2002 with cumulative annual savings to date of 3200 GWh at an estimated cost of 0.46 cents per kWh. Savings in 2010-2011 were 860 GWh. Specification changes made under the programme have a lasting, cumulative effect, with new products purchased in the future years continuing to offer these increased efficiencies. Products covered are both consumer and commercial/industrial focused, and underpin other EECA programmes by providing quality standards, such as motor replacement programmes, refrigerators and chillers and heat pumps. Activities include:

- (i) Developing new specifications where significant potential has been identified for products, for example computers, standby power fans, pumps and motors.
 - (ii) Providing information and product labelling to improve decision making when purchasing or replacing equipment.
 - (iii) Supporting businesses importing or manufacturing regulated products to meet product standards.
 - (iv) Ensuring the product specifications developed in 2011/12 are successfully implemented in the New Zealand market including televisions, external power supplies and commercial chillers.
- (c) **Capability:** Core to the objective of increasing 'natural' uptake of electricity efficiency measures and practices over time (and hence reducing the need for intervention by Government) is increasing capability in the sector. This means increasing awareness by consumers of electricity efficiency opportunities and benefits, and similarly increasing the amount and level of private sector expertise in developing and delivering electricity efficiency solutions. EECA intends to use part of the proposed increased levy funding to increase focus on capability training such as programmes already referred to in the lighting sector above, as well as:
 - (i) Training programmes for industrial users and service providers in the efficient design and operation of pump and fan systems.

- (ii) Commercial building sector electricity efficiency training aimed at energy specialists, facilities managers and stakeholders involved in the sale, lease and valuation of commercial buildings.
 - (d) **Information:** Contribution towards building on the success of the EECA website, the Rightlight information campaign, Mandatory Energy Performance Labelling (MEPL) and the Energy Star® campaign.
- E.19 All future programme activity, including the new focus areas described above, will continue to be built on rigorous business cases to ensure that levy payers' funds are used responsibly and to deliver cost effective electricity saving outcomes. It is estimated that the inclusion of the Products programme will reduce the effective cost to the levy by 0.2 cents /kWh next year across the entire programme.

Forecast performance

- E.20 By the end of 2012/13, EECA is forecasting:
- (a) Cumulative annual savings of 1,240 GWh;
 - (b) 510 MW reduction in peak demand;
 - (c) Present value of savings of around \$1.05 billion; and
 - (d) At a levy cost of less than 2 c per kWh.