

2012/13 Work Programme

Published June 2012

Contents

Exe	cutive Summary	1
	Introduction and Purpose of this Report	
2	The Work Programme is Flexible	3
3	The Projects Have Been Prioritised	3
4	Work Programme Tables Reflect Priorities and Intended Completion Date	4
5	Summary Work Programme Tables	5
6	Key Implementation Projects	9
7	Top Priority Market Development Projects for 2012/13	10
8	Other Priority Projects for Completion in 2012/13	13
9	Other Priority Projects for Completion in 2013/14 and Out-years	18
10	Future Projects	24
11	Current Advisory Group Projects	26
12	Organisational Development Projects	27
Glo	ssary of abbreviations and terms	31

Executive Summary

The Authority work programme is an internal programme of projects that it intends to complete or progress during the 2012/13 financial year.

The work programme provides indicative information about projects as at the beginning of the financial year (1 July 2012). The Authority is flexible and responsive in its management of its work programme. In the normal course of events it is anticipated that reprioritisation will be required during the year, for example as the information available about specific project develops. The Authority will review and update its work programme on a regular basis, and will publish summary reports on progress on a quarterly basis.

The key output-related projects the Authority intends to complete¹ in the year ending 30 June 2013 are summarised in the table on the following page. Details are provided in the body of this document.

In the case of Code or market facilitation measure (MFM) projects, 'completion' means completion of the Code amendment or Authority approval of the MFM, not completion of implementation.

724196-1 1 of 31 Published June 2012

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#	Project name	Approx. % complete as at 1 June 2012	Existing or new project for 2012/13	Consulted on in appropriations consultation	Initial assessment of project size	Initial assessment of net public benefit
	Table A: Key systems implementation projects					
A1	Scarcity pricing - implementation	15%	Existing	Yes	Medium	Medium
A2	Demand side bidding and forecasting (DSBF) – implementation ²	90%	Existing	Yes	Small	NA
А3	Locational price risk management - implementation	60%	Existing	Yes	Large	High
A4	Metering (Part 10) – implementation	60%	Existing	Yes	Large	High
	Table B: Top priority market development projects					
B1	Under-frequency management: AUFLS exemptions	25%	Existing	Yes	Medium	Medium
B2	Frequency regulation: multiple frequency keepers (MFK)	30%	Existing	Yes	Large	High
В3	Under-frequency management project including AUFLS technical review	30%	Existing	Yes	Medium	Medium
B4	Settlement and prudential security review	50%	Existing	Yes	Medium	High
B5	Wholesale market information	75%	Existing	Yes	Small	Medium
В6	Retailer default provisions	65%	Existing	Yes	Medium	Medium
B7	Consumer switching fund (top priority project that continues into 2013/14)	40%	Existing	Yes	Large	High
В8	Transmission pricing investigation	75%	Existing	Yes	Large	High
В9	Review of UTS provisions	30%	Existing	Yes	Medium	High
B10	Hedge market development	20%	Existing	Yes	Small	High
B11	Improving pricing efficiency when a generator is pivotal	10%	New	No	Medium	High

² Dispatchable demand is to follow completion of the DSBF project.

1 Introduction and Purpose of this Report

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

- 1.2 The Authority consulted on its proposed appropriations and work priorities from 29 November 2011 to 9 January 2012. The resulting proposed appropriations were provided to the Minister in February 2012 and subsequently approved. The appropriations were included in the Estimates tabled in the house on 24 May, and the 2012–2015 Statement of Intent (SOI) tabled on 25 May 2012. Project-specific comments from submissions were addressed as part of development of this work programme.
- 1.3 Refinement of the work programme has also considered more recent developments, including the identification of ten key projects by the Board as listed in the SOI foreword, and a significant new project to address improving pricing efficiency when a generator is pivotal. These are the top priority projects in the attached work programme. Additional projects have been added since the appropriations and work priorities consultation process. These include new matters that have been identified, projects that have been split out from existing projects, and projects focused on improving internal systems and processes.

2 The Work Programme is Flexible

- 2.1 The work programme is an internal planning document. It provides indicative information about projects as at June 2012 and the progress intended by 30 June 2013. This work programme represents a full commitment of Authority staff resources and the available budget. Any changes to projects will therefore be carefully managed.
- 2.2 In the normal course of events it is anticipated that reprioritisation will be required during the year, for example as the information available about specific project develops, and new risks or issues come to the Authority's attention. The Authority will review and update its work programme on a regular basis, and intends to provide summary level reports on its progress on a quarterly basis.

3 The Projects Have Been Prioritised

3.1 Projects in the work programme have been selected and prioritised on the basis of expected net public benefit and the extent to which the Authority has already progressed projects. The key focus for the work programme is implementation of new matters from the Act, and completion of the top priority projects listed in the SOI (page 4 of the SOI). Second priority has been assigned to other key projects and priorities arising out of stakeholder feedback received in January, and subsequent Authority consideration of strategic priorities. These projects are considered to have potential to deliver substantial benefits in relation to the statutory objective. Third priority has been assigned to projects with significant stakeholder interest and/or considered to have potential to deliver significant benefits in relation to the statutory objective. These projects are the most likely to be re-prioritised should the need arise during the financial year. All other potential Code amendment and project proposals that warrant further consideration have been recorded as future projects. These are projects that are considered to have potential merit but cannot be resourced within this fiscal period.

724196-1 3 of 31 Published June 2012

4 Work Programme Tables Reflect Priorities and Intended Completion Date

4.1 The work programme is set out in a series of tables as summarised below.

Focus	Work programme tables	Comment
2012/13 focus	Table A—Key Implementation projects	Addresses key systems implementation projects—section 42 matters and Part 10.
	Table B—Top Priority Market Development Projects	Ten top priority projects as listed in the foreword of the Statement of Intent (page 4 of the SOI) plus the project to improve pricing efficiency when a generator is pivotal.
	Table C—Other Projects for Completion in 2012/13	These are projects where the Authority expects to complete Code development or implementation, as applicable, in 2012/13.
		Projects include:
		 priority 2: significant projects, including Code development projects that have already been commenced and are considered to have the potential to deliver substantial benefits in relation to the Authority's objective; and
		 priority 3: projects that have merit and are able to be resourced in the first instance, but may need to be reprioritised later.
2013/14 and beyond focus	Table D—Other Projects for Completion in 2013/14 or Out-years	These are projects where the Authority expects to complete Code development or implementation, as applicable, in 2013/14 or later. Projects include priority 2 and 3 as above.
	Table E—Future Projects	Projects that will not proceed unless resources become available. Will require initial scoping and cost benefit assessment before proceeding.
Advisory group focus	Table F—Current Advisory Group Projects	Projects included in tables B – D that are currently being progressed by advisory groups. Potential advisory group projects for 2012/13 are to be discussed with the groups in July and this table will be updated once the projects have been agreed.
Internal focus	Table G—Organisational development projects	Existing and planned projects that are being carried out for organisation development purposes.

Published June 2012 4 of 31 724196-1

5 Summary Work Programme Tables

5.1 This section includes summary tables for the work programme. Details are provided in the sections that follow (section 6 to 12).

#	Project name	Approx. % complete as at 1 June 2012	Existing or new project for 2012/13	Consulted on in appropriations consultation	Initial assessment of project size	Initial assessment of net public benefit
	Table A: Key systems implementation projects					
A1	Scarcity pricing - implementation	15%	Existing	Yes	Medium	Medium
A2	Demand side bidding and forecasting (DSBF) – implementation ³	90%	Existing	Yes	Small	NA
А3	Locational price risk management - implementation	60%	Existing	Yes	Large	High
A4	Metering (Part 10) – implementation	60%	Existing	Yes	Large	High
	Table B: Top priority market development projects					
B1	Under-frequency management: AUFLS exemptions	25%	Existing	Yes	Medium	Medium
B2	Frequency regulation: multiple frequency keepers (MFK)	30%	Existing	Yes	Large	High
В3	Under-frequency management project including AUFLS technical review	30%	Existing	Yes	Medium	Medium
B4	Settlement and prudential security review	50%	Existing	Yes	Medium	High
B5	Wholesale market information	75%	Existing	Yes	Small	Medium
В6	Retailer default provisions	65%	Existing	Yes	Medium	Medium
B7	Consumer switching fund (top priority project that continues into 2013/14)	40%	Existing	Yes	Large	High
В8	Transmission pricing investigation	75%	Existing	Yes	Large	High
В9	Review of UTS provisions	30%	Existing	Yes	Medium	High
B10	Hedge market development	20%	Existing	Yes	Small	High
B11	Improving pricing efficiency when a generator is pivotal	10%	New	No	Medium	High

724196-1 5 of 31 Published June 2012

Dispatchable demand is to follow completion of the DSBF project.

#	Project name	Approx. % complete as at 1 June 2012	Existing or new project for 2012/13	Consulted on in appropriations consultation	Initial assessment of project size	Initial assessment of net public benefit
	Table C: Other priority projects for completion in 2012/13					
C1	Allocation of constrained-on costs	0%	New	Yes	Small	Low
C2	Distribution pricing review	20%	Existing	Yes	Medium	Medium
C3	Grid configuration arrangements	35%	New	Yes	Small	Low
C4	Research project - scarcity pricing	5%	New	Yes	Small	NA
C5	Value of lost load (VoLL)	60%	Existing	Yes	Medium	High
C6	Wholesale information trading system (WITS) strategy	85%	New	Yes	Small	Medium
C7	Asset owner performance obligations (AOPOs): fault ride-though	75%	Existing	Yes	Small	Medium
C8	Definition of trader under the Act	20%	Existing	No	Small	Low
C9	Domestic contracting arrangements - 2012 alignment assessment	55%	Existing	Yes	Small	Low
C10	Electronic information exchange protocols (EIEPs)	70%	Existing	Yes	Small	Medium
C11	Frequency regulation: frequency keeping (FK) constrained on/off	0%	Existing	Yes	Small	Medium
C12	Frequency regulation: review normal frequency band and AOPOs	30%	Existing	Yes	Small	Medium
C13	Metering - advanced metering policy implementation project	70%	Existing	Yes	Small	Medium
C14	Review of service provider agreement (excluding SOSPA)	55%	Existing	Yes	Medium	NA
C15	System operation alignment review	15%	New	No	Medium	NA
C16	Review of security standards - Part 7	65%	Existing	Yes	Medium	Low
C17	System operator monthly reporting	70%	Existing	Yes	Small	NA
C18	Under-frequency management: AUFLS standard review	50%	Existing	Yes	Medium	Medium
C19	Demand side bidding and forecasting - impact review	0%	New	Yes	Small	Low
C20	2012 winter review	0%	New	Yes	Small	Low
C21	Review of the Consultation Charter	0%	New	No	Small	NA
C22	Review of advisory group terms of reference	0%	New	No	Small	NA
C23	Asset owner performance obligations (AOPOs): under-frequency rules	0%	Existing	Yes	Small	Medium
C24	Operational review of Part 6	50%	Existing	No	Small	Low
C25	Closure review of the Reserve Energy Scheme	0%	New	No	Small	Low
C26	Technical year in review (separate from assessment of market performance)	0%	New	Yes	Medium	Low
C27	Compliance framework review project	20%	New	No	Small	NA
C28	Force majeure Code provisions review	35%	New	No	Small	Low

#	Project name	Approx. % complete as at 1 June 2012	Existing or new project for 2012/13	Consulted on in appropriations consultation	Initial assessment of project size	Initial assessment of net public benefit
	Table D: Projects for completion in 2013/14 and out-years					
D1	More standardisation programme - impact review	0%	New	Yes	Small	Low
D2	Research project - efficiency of system operator arrangements	0%	New	Yes	Medium	Low
D3	Alternative funding arrangements investigation	0%	New	No	Small	NA
D4	Dispatchable demand (DD): phase 2 – conforming load	0%	New	Yes	Medium	Medium
D5	Improving forecast and settlement prices	0%	New	Yes	High	High
D6	Improvements to existing spot pricing process	0%	New	Yes	Medium	Medium
D7	Locational price risk management: phase 2 – within-island basis risk (WIBR)	0%	New	Yes	Medium	High
D8	Research project - distribution company arrangements	0%	New	Yes	Medium	NA
D9	Potential research project - low fixed charges (TBC)	0%	New	Yes	Medium	NA
D10	Review of half hour switching rules	0%	Existing	Yes	Small	High
D11	Frequency regulation: National market for frequency keeping	0%	Existing	Yes	Small	Medium
D12	Review of UTS provisions-implementation	0%	Existing	Yes	Small	NA
D13	Under-frequency management - AUFLS market development	20%	Existing	Yes	Small	Medium
D14	Participant education	0%	New	Yes	Small	Medium
D15	Consumer education	0%	New	Yes	Small	Medium
D16	Breakdown of customer billings	0%	New	No	Small	Low
D17	Domestic contracting arrangements	0%	Existing	Yes	Small	Low
D18	Review: extending the Consumer Guarantees Act indemnity to Transpower	0%	New	Yes	Small	Low
D19	Improved market modelling of losses	0%	New	Yes	Small	Medium
D20	Instantaneous reserve cost allocation methodology	0%	Existing	Yes	Small	Low
D21	Instantaneous reserve national market	0%	Existing	Yes	Medium	High
D22	Offer and dispatch Code development	0%	Existing	Yes	Medium	High
D23	Review of use of profiles	0%	New	No	Small	Low
D24	Under-frequency management - instantaneous reserve AOPOs	0%	Existing	Yes	Small	Low

Notes to the project tables

These notes apply to all project tables below.

(a) Overall performance standard for 2012/13—the project tables below include key milestones or deliverables for the 2012/13 year. It should be noted that for all relevant projects the milestones have been set out as if a Code amendment is required. Projects may be ended or a different path decided upon (such as market facilitation measures) at a number of points in the process, in particular after an initial investigation and cost benefit analysis (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.

- (b) **Project size key**—this addresses the overall estimate of project size, including direct Authority costs and staff time and level of consultant input. 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).
- (c) **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.

6 Key Implementation Projects

- 6.1 The table below addresses key existing projects that are at the implementation stage in 2012/13.
- 6.2 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. 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/
- 6.3 The table below also covers the Metering (Part 10) implementation work in 2012/13.
- Resources will also be allocated to completing post-implementation reviews for major projects in 2013/14 and 2014/15.

Table A: Key system implementation projects

#	Team	Name	Project description	Overall performance standard for 2012/13	Initial assessment of project size	Initial assessment of net public benefit
A1	Operations Development	Scarcity pricing-implementation	Implementation of s42 changes. Capital project.	- Complete go-live by 30 June 2013.	Medium	Medium
A2	Operations Development	Demand side bidding and forecasting (DSBF) - implementation	Section 42 implementation project. Capital project.	 Should be finished by 30 June 2012, but potentially some post completion actions required. 	Small	NA
A3	Operations Development	Locational price risk management - implementation	Section 42 implementation project. Capital project.	- Go-live date: 1 May 2013.	Large	High
A4	Operations Development	Metering (Part 10) - implementation	Operating costs include some Registry costs, data clean-up, and testing. Capital project.	- Complete implementation by June 2013.	Large	High
A5	Operations Development	Dispatchable demand – implementation NB not being completed in 2012/13.	Section s42 implementation project. Capital project.	 A go-live date of 30 June 2013 was adopted in the Code amendment pending detailed planning by the system operator. The system operator had indicated at the time that the go-live date may be as late as 30 June 2015. 		High

724196-1 9 of 31 Published June 2012

7 Top Priority Market Development Projects for 2012/13

7.1 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 Statement of Intent.

Table B: Information about top priority market development projects

#	Team	Name	Project description	Overall performance standard for 2012/13	Initial assessment of project size	Initial assessment of net public benefit
B1	Operations Development	Under-frequency management: automatic under-frequency load shedding (AUFLS) exemptions	Project to clarify AUFLS requirements for exemptions and alternatives (ie dispensations, equivalence). Also includes processing exemption applications, if required.	 SOI 1. Complete clarification Code amendments for exemptions dispensations, and equivalence codes. Implementation to follow. 	Medium	Medium
B2	Operations Development	Frequency regulation: multiple frequency keepers (MFK)	Develop a system to coordinate multiple frequency keepers, along the lines of an automatic governor control (AGC) system but tailored to New Zealand requirements (e.g. block dispatch). NB currently can only be provided by one generator in each half hour period in each island.	 SOI 2. Complete Code amendment by June 2013. Multiple frequency keeper Code in place by June 2013. 1-2 year implementation period to enable all current FK parties to put systems in place to participate. 	Large	High
В3	Operations Development	Under-frequency management (UFM) project including AUFLS technical review	Review of all under frequency management tools, including verifying modelling formats. ⁴	 SOI 3. Complete collective review of AUFLS and published by system operator by June 2012. Code amendment proposals to be provided by the system operator by September 2012. Code amendments - timetable to be determined by October 2012. 	Medium	Medium

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Overall event management comment: some components i.e. AUFLS block sizing and trigger points, will be progressed in conjunction with the AUFLS review work carried out by the system operator.

#	Team	Name	Project description	Overall performance standard for 2012/13	Initial assessment of project size	Initial assessment of net public benefit
B4	Market Design	Settlement and prudential security review	On-going improvements to clearing and settlement parts of the Code. May include: - variable prudential security; - review of acceptable forms of security; - review of clearing and settlement process; and - settlement of islanded embedded generation. WAG project.	 SOI 4. 2012/13: Finalise WAG recommendations to the Board. Publish any subsequent WAG discussion paper, summary of submissions, etc. Publish consultation paper on Code amendments and CBA. Possibly second round of Authority consultation. 2013/14: Complete Code amendment. 	Medium	High
B5	Market Design	Wholesale market information	Amendments to the Code (or other initiatives) to improve information available to market participants, eg access to snow pack data, improved access to WITS for wider range of participants. WAG project.	 SOI 5. Finalise WAG recommendations to the Board. Publish any subsequent WAG discussion paper, summary of submissions, etc. Publish consultation paper on Code amendments and CBA. Complete Code amendment. Transfer to Operations Development for implementation. 	Small	Medium
B6	Market Design	Retailer default provisions	Identify arrangements to ensure an orderly resolution of a retailer default situation when a retailer becomes insolvent or discontinues service (e.g. exits the market). RAG project.	SOI 6. - Complete Code amendment, if necessary. - No implementation project expected.	Medium	Medium
B7	Market Design	Consumer switching fund	On-going delivery of consumer switching output class (continues into 2013/14).	SOI 7 SOI pages 25–26: impact measures and output performance measures.	Large	High

724196-1 11 of 31 Published June 2012

#	Team	Name	Project description	Overall performance standard for 2012/13	Initial assessment of project size	Initial assessment of net public benefit
B8	Market Design	Transmission pricing investigation	Completion of review of transmission pricing - involves changes to schedule 12.4. A need to review subpart 4 of part 12 has been identified.	SOI 8. - Complete transmission pricing methodology Code amendment. - Handover to BAU for on-going monitoring.	Large	High
B9	Market Design	Review of UTS provisions	Project to review Parts 1 and 5 of the Code: UTS provisions and remedies. The review covers: - 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.	SOI 9 Consultation completed Code amendments made.	Medium	High
B10	Market Design	Hedge market development	Monitoring industry progress and developing further initiatives to improve the hedge market. Includes education material on the hedge market.	SOI 10. - Continue to undertake information paper reports analysing market performance and outlining revised initiatives. - Performing CBA of proposed market facilitation measures or Code amendments. - Hedge market booklet—information on spot price risk and mechanisms for managing that risk.	Small	High
B11	Market Design	Improving pricing efficiency when a generator is pivotal	New for 2012/13: consider options to bring more confidence that prices during pivotal situations are consistent with prices in a workably competitive market.	 Initial report - investigation, issues/options paper to Board. Further steps to be determined based on initial report. 	Medium	High

8 Other Priority Projects for Completion in 2012/13

8.1 The table below sets out second and third 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 Statement of Intent and work programme.

Table C: Information about second and third priority projects for completion in 2012/13

#	Team	Name	Project description	Priority 2012/13	Overall performance standard for 2012/13	Initial assessment of project size	Initial assessment of net public benefit
C1	Market Design	Allocation of constrained-on costs	New for 2012/13: Review the calculation and allocation of constrained-on costs to ensure efficiency (Code amendment proposal from the system operator).	2 - High priority	 Complete investigation of problem. Prepare consultation paper on preferred option, with CBA and any required Code amendments. Transition to Operations Development team for implementation. 	Small	Low
C2	Market Design	Distribution pricing review	Review of distributors' alignment with Distribution pricing principles and information disclosure guidelines - to start following a decision on an economic and decision-making framework.	2 - High priority	- Complete review (project will end).	Medium	Medium
C3	Market Design	Grid configuration arrangements	New for 2012/13: assess efficient grid configuration arrangements. Involves changes to subpart 6 of part 12.	2 - High priority	- Complete Code amendment follow up process (confirm/not confirm).	Small	Low
C4	Market Design	Research project - scarcity pricing	New for 2012/13: carry out research into the potential for model-based approaches to scarcity pricing, for example the setting and application of price floors during public conservation campaigns (PCCs) (consideration of price floors that are dynamic rather than fixed).	2 - High priority	 Research project completed. Key findings passed on to improving real-time spot pricing project and sensitive prices review 	Small	NA
C5	Market Design	Value of lost load (VoLL)	Completion of review of value of lost load. Output will be useful for transmission and distribution purposes - involves changes to subpart 3 of part 12. This work has implications for scarcity pricing and AUFLS.	2 - High priority	- Complete project - Code amendment.	Medium	High

724196-1 13 of 31 Published June 2012

#	Team	Name	Project description	Priority 2012/13	Overall performance standard for 2012/13	Initial assessment of project size	Initial assessment of net public benefit
C6	Market Design	Wholesale information trading system (WITS) strategy	New for 2012/13: 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.	2 - High priority	 Prepare WITS strategy document and obtain Board approval to progress. Develop project plan for implementation. Transition to Operations Development team for implementation. 	Small	Medium
C7	Operations Development	Asset owner performance obligations (AOPOs): fault ride-though	Review of low voltage fault ride-through AOPOs to determine if fit for purpose with changing generation mix (ie significant wind generation).	2 - High priority	Decision on whether re-consultation is required August/September 2012.Completion by June 2013.	Small	Medium
C8	Operations Development	Definition of trader under the Act	Address the issue of the introduction of financial traders and a review of type 2 retailers.	2 - High priority	- Project to be scoped and costed - ASAP.- New definition in place by June 2013.	Small	Low
C9	Operations Development		Review of retailer alignment with standard terms and conditions. Second (and final) review at two years after implementation. Results to be used in reviewing retail contracting arrangements over July-August.	2 - High priority	- Publish report by December 2012.	Small	Low
C10	Operations Development	Electronic information exchange protocols (EIEPs)	Review and update of EIEPs.	2 - High priority	 Results of consultation reported to Board on 1 August 2012. Second consultation for mandating EIEPs - to take place in August. Final recommendation to the Board by January 2013. Implementation target 1 April 2013 (prior to Part 10 go-live). 	Small	Medium
C11	Operations Development	Frequency regulation: frequency keeping (FK) constrained on/off	Removal of constrained on/off from the FK selection methodology and from the FK cost allocation. Includes initial investigation.	2 - High priority	- Complete Code amendment by June 2013.	Small	Medium

#	Team	Name	Project description	Priority 2012/13	Overall performance standard for 2012/13	Initial assessment of project size	Initial assessment of net public benefit
C12	Operations Development	Frequency regulation: review normal frequency band and AOPOs	Review of the frequency keeping Hz band, MW band and related AOPO's to determine if fit for purpose. Investigation reports produced by the system operator in 2011. Further system operator investigation may be required - implications for software.	2 - High priority	 Investigation reports produced by the system operator in 2011. Develop Code amendment proposal for (1) frequency deviation targets, (2) time error standard, (3) minimum governor response, and (4) cost allocation related to (3). 	Small	Medium
C13	Operations Development	Metering - advanced metering policy implementation project	Publication of guidelines as necessary to facilitate advanced meters. Scope of this project is: - complete review of advanced metering interface (AMI) guidelines; and - consult on industry-agreed formats for exchanging AMI information.	2 - High priority	 Complete review of guidelines (post Part 10 review), consult on them and publish update. NB Current initiatives will be completed but there is the potential for on-going improvement initiatives - outside of scope of this project. 	Small	High
C14	Operations development	Review of service provider agreement (excluding the system operator service provider agreement (SOSPA))	Decision on renewal of market operation service provider agreements for next three year term.	2 - High priority	SOI page 40: - completing an analysis of market operation service provider performance reviews over the current term of the contracts and make a decision on whether to re-tender; and - if re-tendering of market operation services is required, carry out a best practice tender and selection process, including ensuring seamless handovers if new providers are selected.	Small	NA

724196-1 15 of 31 Published June 2012

#	Team	Name	Project description	Priority 2012/13	Overall performance standard for 2012/13	Initial assessment of project size	Initial assessment of net public benefit
C15	Operations Development	System operation alignment review	New for 2012/13: a wide ranging review of the SOSPA arrangements, including: - alignment of SOSPA objectives with s15 of the Electricity Industry Act 2010; - development of a wider range of performance measures; - addressing capital plan and spending arrangements; and - addressing the impact of fee changes on levy payers.	2 - High priority	- Complete review and update SOSPA, if required.	Medium	NA
C16	Operations Development	Review of security standards – Part 7	Review of the security standard in Part 7 of the Code. Review of winter energy and capacity standards and the creation of a summer security standard.	2 - High priority	 Analysis of winter security standards will be complete in 2011/12 period. Code amendment proposal will cross over into the 2012/13 period. Analysis for the new summer capacity standard will cross over into the 2012/13 period and a code amendment proposal will be consulted on in September/October 2012. 	Medium	Low
C17	Operations Development	System operator monthly reporting	A review of the value of system operator monthly reporting.	2 - High priority	- Complete minor Code amendment, if required.	Small	NA
C18	Operations Development	Under-frequency management: AUFLS standard review	A project in which the system operator will determine what events AUFLS are actually covering (part of the security policy review). Potential amendment to system operator policy statement and technical Codes. Linked to collective review project.	2 - High priority	 Potential Code amendments to system operator policy statement, security policy section, completed by 30 June 2013. 	Medium	Medium
C19	Market Performance	Demand side bidding and forecasting - impact review	Post implementation review of impacts and outcomes.	2 - High priority	- Complete report.	Small	Low
C20	Market Performance	2012 winter review	New for 2012/13: review of winter 2012.	2 - High priority	- Complete report.	Small	Low

#	Team	Name	Project description	Priority 2012/13	Overall performance standard for 2012/13	Initial assessment of project size	Initial assessment of net public benefit
C21	Legal and Compliance	Review of the Consultation Charter	Statement of Intent signals a move to six weeks of consultation.	2 - High priority	 Amend the Consultation Charter to increase the standard consultation period from four to six weeks. Complete review of Consultation Charter by 30 November 2012. 	Small	NA
C22	Market Design	Review of advisory group terms of reference	New for 2012/13: specifically addresses SOI strategic priority 5: Embedding and enhancing the effectiveness of advisory groups.	3 - Important	- SOI page 41: Complete a review of current Advisory Group arrangements and work to date, and assess opportunities for improvement in supporting the work of the Advisory Groups.	Small	NA
C23	Operations Development	Asset owner performance obligations (AOPOs): under-frequency rules	Review of under-frequency AOPO's to determine if fit for purpose with changing generation mix (ie significant wind generation).	3 - Important	 Initiate investigation into better Code clarity, with Code amendments to follow if required. Code amendments consulted on. Completion by June 2013. 	Small	Medium
C24	Operations Development	Operational review of Part 6	A review of Part 6 of the Code to address perceived low notification rates of DG, and approximately 40 operational issues identified since inception of the legislation in August 2007. This review excludes the pricing principles of Part 6, which is to be covered by the review of distribution pricing.	3 - Important	 Complete consultation August 2012. Code amendment recommendation to Board Oct 2012. Target effective date 1 April 2013. 	Small	Low
C25	Market Performance	Closure review of the Reserve Energy Scheme	New for 2012/13: complete a review of the Reserve Energy Scheme.	3 - Important	- Complete review.	Small	Low
C26	Market Performance	Technical year in review	New for 2012/13: technical document (separate from annual assessment).	3 - Important	- Technical document completed.	Medium	Low
C27	Legal and Compliance	Compliance framework review project	First principles review of the compliance framework - covers Act, Code and regulations. Excludes review of compliance philosophy.	3 - Important	- Complete the review.	Small	NA

724196-1 17 of 31 Published June 2012

#	Team	Name	Project description	Priority 2012/13	Overall performance standard for 2012/13		Initial assessment of net public benefit
C28	Legal and Compliance		New for 2012/13: initiated in 2011/12. To be completed in 2012/13.	3 - Important	 Draft consultation paper to 6 June Board meeting. Consultation June/July. Code amendment to Board September/October 2012. 	Small	Low

9 Other Priority Projects for Completion in 2013/14 and Out-years

9.1 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 D: Information about second and third priority projects for completion in 2013/14 and out-years

#	Team	Name	Project description	Priority 2012/13	Overall performance standard for 2012/13	Initial assessment of project size	Initial assessment of net public benefit
D1	Market Performance	More standardisation programme - impact review	Post implementation review of impacts and outcomes.	2 - High priority	Initiate reviewComplete report in 2013/14.	Small	Low
D2	Market Performance	Research project - efficiency of system operator arrangements	New for 2012/13: review service provider arrangements relating to system coordination and related market services. Links to SOSPA review.	2 - High priority	- Complete report.	Meduim	Low
D3	Market Design	Alternative funding arrangements investigation	A review to consider possible alternative funding arrangements to determine whether there are more efficient means of funding specific Authority operations (eg service providers). NB if change is required, legislation will be required.		 Initial deliverable is a report on the merits of alternative means of funding the Authority's operational functions. Further steps to be determined. 		NA

#	Team	Name	Project description	Priority 2012/13	Overall performance standard for 2012/13	Initial assessment of project size	Initial assessment of net public benefit
D4		Dispatchable demand (DD): phase 2 – conforming load	New for 2012/13: Facilitating greater demand-side participation in the wholesale market – for nodes where centralised load forecasts are used rather than bids (conforming nodes).	2 - High priority	 Complete investigation and cost benefit assessmen. Complete options analysis and design. Consultation paper. 	Medium	Medium
D5	_	Improving forecast and settlement prices	New for 2012/13: Review of options to improve forecast and settlement prices, especially during periods of system stress. Related/ prerequisite work to do: eg address RAF to zero, infeasibilities, reserve shortage pricing. (Previously named: Ex-ante/real-time spot pricing.)	2 - High priority	 Undertake initial cost benefit assessment to consider whether to pursue. Dependent upon outcome of analysis, prepare detailed project plan, and scope of work for the system operator. Potentially develop pilot programmes, publishing alternative real-time prices that could be used for settlement. 	High	High
D6	_	Improvements to existing spot pricing process	New for 2012/13: changes to the existing spot pricing process, including: - improved modelling of constraints in scheduling, pricing and dispatch software; - wind generation inputs into final pricing; - infeasibility resolution improvement process; - time limit on the republication of final prices; and - interim pricing period deadline changes.	2 - High priority	 Finalisation of constraint softening concepts. Locational Price Risk Technical Group (LPRTG) advice on practicable options and preferred option. Prepare consultation on Code amendments and cost benefit assessment. 	Medium	Medium

724196-1 19 of 31 Published June 2012

#	Team	Name	Project description	Priority 2012/13	Overall performance standard for 2012/13	Initial assessment of project size	Initial assessment of net public benefit
D7	Market Design	Locational price risk management: phase 2 – within-island basis risk (WIBR)	New for 2012/13: introduction of a solution to assist parties to manage spot price risks within an island. Review allocation of any residual FTR and loss and constraint excess (LCE) revenue. Potential to also address any Code amendments for inter-island FTRs.	2 - High priority	 Finalise cost benefit assessment on residual LCE, and possibly picking work up again near the end of the financial year (depending upon the timing of TPM progress). Prepare and release consultation paper on preferred option and any required Code amendments for intra-island price risk. Transition intra-island price risk solution to Operations Development team for eventual implementation. 	Medium	High
D8	Market Design	Research project - distribution company arrangements	New for 2012/13: Research project to review the efficiency of distribution network company arrangements. Commitment made to consult on scope.	2 - High priority	 Draft scope and project outline. Further deliverables to be determined. 	Medium	NA
D9	Market Design	Potential research project - low fixed charges (TBC)	New for 2012/13: A potential research project looking into the effects on efficiency and competition of the Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004. Scope to be discussed with the Ministry of Economic Development.	2 - High priority	 Draft scope and project outline. Further deliverables to be determined. 	Medium	NA
D10	Operations Development	Review of half hour switching rules	Review of half hour switching rules - consideration of Trustpower rule change proposal.	2 - High priority	- Code amendments consulted on Completion in June 2013/14.	Small	High

#	Team	Name	Project description	Priority 2012/13	Overall performance standard for 2012/13	Initial assessment of project size	Initial assessment of net public benefit
D11	Operations Development	Frequency Regulation: National market for frequency keeping	Initial consideration of a national market for frequency keeping. Resource provided for national market Code / investigation of how to develop a national market.	2 - High priority	 Prerequisite is access to HVDC bi-pole control system and potentially round-power (Grid Owner). Timetable to be developed. Target is to have market set up and ready to go when control system is made available by Grid Owner. 	Small	Medium
D12	Operations Development	Review of UTS provisions-implementation	Implementation work to review and updated internal Authority procedures for management of UTS claims. Dependent on review of UTS provisions project.	2 - High priority	- Deliverables to be determined - dependent on review of UTS Code, which is on hold pending Genesis appeal.	Small	NA
D13	Operations Development	Under-frequency management - AUFLS market development	Investigate options for a move over time towards developing an AUFLS market.	2 - High priority	 Issues and options report to Board August/September 2012. Further steps dependent on issues and options report. 	Small	Medium
D14	Corporate Services	Participant education	New for 2012/13: Educate participants on the operation of the Code, with specific focus on new areas of Code development. Coordination / alignment / look and feel by Corporate with most input coming from teams. Includes: refresh existing and complete new Guidelines to facilitate market operational knowledge; subject specific industry fora; and alignment with compliance conference.		- SOI Page 41: completing implementation of the communication strategy developed in 2011/12 Implementation completed and content for Annual Report provided.	Small	Medium

724196-1 21 of 31 Published June 2012

#	Team	Name	Project description	Priority 2012/13	Overall performance standard for 2012/13	Initial assessment of project size	Initial assessment of net public benefit
D15	Corporate Services	Consumer education	New for 2012/13: 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. Led by Corporate with input from other teams.	2 - High priority	 SOI Page 41: completing implementation of the communication strategy developed in 2011/12. Implementation completed and content for Annual Report provided. 	Small	Medium
D16	Market Design	Breakdown of customer billings	New for 2012/13: Review whether there should be mandatory disclosure of the component parts of customer electricity bills.	3 - Important	- Provide a recommendation to the Board on whether MFM or Code changes are required to give effect to more transparency.	Small	Low
D17	Market Design	Domestic contracting arrangements	Consideration of suite of arrangements for consumer and distributor/retailer relationship, including MDC and VDC. RAG project.	3 - Important	 Scope completed. Further deliverables to be to be determined. 	Small	Low
D18	Market Design	Review: extending the Consumer Guarantees Act indemnity to Transpower	New for 2012/13: Review whether the Consumer Guarantees Act indemnity obligations on lines companies should be extended to Transpower.	3 - Important	 Scope and project outline being developed. Complete Code amendment, if necessary (2013/14). No implementation for the Authority. 	Small	Low
D19	Market Design	Improved market modelling of losses	New for 2012/13: improve the representation of losses in the system operator's scheduling, pricing and dispatch model (SPD) – provides for a lower cost market solution.	3 - Important	 Complete investigation of problem. Prepare consultation paper on preferred option, with cost benefit assessment and any required Code amendments. Transition to Operations Development for implementation. 	Small	Medium
D20	Market Design	Instantaneous reserve cost allocation methodology	Review of the instantaneous reserve cost allocation methodology.	3 - Important	- To be determined.	Small	Medium

#	Team	Name	Project description	Priority 2012/13	Overall performance standard for 2012/13	Initial assessment of project size	Initial assessment of net public benefit
D21	Market Design	Instantaneous reserve national market	New for 2012/13: Instantaneous reserve national market (HVDC transfer). Allows transfer of reserves from one island to the other via the HVDC. Dependent on HVDC bi-pole control systems being fully in service.	3 - Important	Project to start late in the 2012/13 year: - Cost estimate for implementation provided by system operator. - Cost benefit assessment prepared. - Consultation paper prepared.	Medium	High
D22	Market Design	Offer and dispatch Code development	Improve the offer and dispatch rules to improve operational efficiency, eg: review of gate closure - potential further work; reserve offers; and other Code amendment proposals.	3 - Important	- Complete gate closure feasibility study.	Medium	High
D23	Operations Development	Review of use of profiles	Review of the extent of use of profiles and whether they are being efficiently applied. Initial work will be required to investigate extent of the issue.	3 - Important	- Complete initial investigation.	Small	Low
D24	Operations Development	Under-frequency management - instantaneous reserve	Review of instantaneous reserve cost allocation methodology.	3 - Important	 If resources available, initiate a first principles review of instantaneous reserves. Code to follow, if required - timetable to be determined by review. 	Small	Low

724196-1 23 of 31 Published June 2012

10 Future Projects

10.1 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 E: Information about proposed future projects

#	Team	Name	Project description
E1	Operations Development	Asset Owner Performance Obligations: voltage rules	Review of voltage AOPO's to determine if fit for purpose with changing generation mix (ie significant wind generation).
E2	Operations Development	CQ Development plan - further items	Extensive list of possible initiatives as listed in the Common Quality Development Plan - not prioritised or costed.
E3	Operations Development	Credible event management: under voltage management	Review appropriateness of the Code for under-voltages during events.
E4	Market Performance	Dispatchable demand - post implementation review	Post implementation review of impacts and outcomes.
E5	Operations Development	Frequency Regulation: Frequency keeping cost allocation	Project purpose is to allow anticipated wind generation to be successfully integrated into the New Zealand electricity system over the next five-10 years. Phase 3: FK cost allocations, AOPO/dispensation/equivalence review.
E6	Operations Development	Guidelines for secondary networks - network extensions & customer networks	Development of arrangements for network extensions and the establishment of compliance requirements.
E7	Market Performance	Locational price risk management- impact review	Post implementation review of impacts and outcomes.
E8	Market Performance	Metering - Part 10 -impact review	Post implementation review of impacts and outcomes.
E10	Operations Development	Optimisation of non-technical distribution losses	Develop recommendations for the management, minimisation and allocation of non-technical distribution losses, and monitor uptake of recommendations Production of a discussion document for consultation that includes: (a) establishing the current and likely 'business as usual' position. (b) research the technology and techniques that can be adopted. (c) identifying the potential improvements that could be achieved. (d) identifying the options available to the EC for providing appropriate incentives for improved losses management. (e) identifying and proposing performance benchmarks, measurement systems and reporting. [Link to Minimisation of technical losses project]

#	Team	Name	Project description
E11	Operations development	Pre-certification stage investigation	Board requested project to facilitate new entrant retailers - look at Board discretion around period for new retailers to gain certification. Potentially able to be addressed as a minor code amendment.
E12	Operations Development	Responsibility for maintenance of consumer service lines	Scope the work that may be required to establish a project to investigate options resolve the consumer service line ownership issue. The Commission published an information paper providing some guidance on how to determine ownership on a case by case basis, however there is a need to look at the issues and possible long term solutions There is a question about whether this is a broader policy issue that needs to be dealt with by MED.
E13	Market Design	Review of Part 12	This picks up connection process, (subpart 2 of part 12), benchmark agreements, GRS, and other areas
E14	Market Performance	Scarcity pricing-impact review	Post implementation review of impacts and outcomes
E15	Market Design	Short-term hedge instruments	Consider the need for a short-term market for hedge instruments (e.g. day-ahead)
E16	Operations Development	TPM: monitoring issues and audit, if required	BAU follow up and Authority-commissioned external audit of Transpower's application of the TPM. NB no Authority-commissioned external audit planned until new TPM in place and operating.
E17	Market Design	Trading arrangements (Part 13) review	Review the Code relating to trading. Includes scheduling, dispatch, pricing, information and information disclosure.

724196-1 25 of 31 Published June 2012

11 Current Advisory Group Projects

- 11.1 These are projects that are currently being undertaken by advisory groups. These projects are also listed in tables B D.
- 11.2 Potential advisory group projects for 2012/13 are to be discussed with the groups in July and this table will be updated once the projects have been agreed.

Table F: Current advisory group projects

Advisory Group	Project name	Project description
RAG	Retailer default provisions	Identify arrangements to ensure an orderly resolution of a retailer default situation when a retailer becomes insolvent or discontinues service (e.g. exits the market).
RAG	Domestic contracting arrangements	Consideration of suite of arrangements for consumer and distributor/retailer relationship, including MDC and VDC.
WAG	Settlement and prudential security review	Clearing and settlement / WAG Settlement and Prudential security review On-going improvements to clearing and settlement parts of the Code.
WAG	Wholesale market information	Amendments to the Code (or other initiatives) to improve information available to market participants. E.g. access to snow pack data, improved access to WITS for wider range of participants.

12 Organisational Development Projects

12.1 The table below addresses existing and planned projects that are being carried out for organisation development purposes. These projects do not have a direct net public benefit and are included in the work programme as they are key projects to enable the effective and efficient operation of the Authority.

Table G: Information about organisational development projects

#	Team	Name	Project description	Priority 2012/13	Overall performance standard for 2012/13	Initial assessment of project size
G1	Development	Implementation of Operations Development process review	Implementation of the review carried out in 2011/12. Initial step is workflow tool.	2 - High priority	 SOI Page 42: completing implementation of the review of operational development systems and processes. Implementation programme will flow out of the review to be completed by the end of the 2011/12 year. Request for proposal (RFP), including specification, being developed for workflow tool - to be released July, closing end of July. Further steps dependent on RFP results. 	Small
G2		Service provider (NZX) hardware refresh	Capital project - to update and replace NZX service provider hardware (owned by the Authority).	2 - High priority	- To be completed by 14 October 2013.	Small
G3	Corporate Services	Path to World Class	Completing the organisational development strategy.	2 - High priority	- SOI page 41: completing the Authority's organisational development strategy to improve organisational performance to achieve the vision of being a world class electricity regulator.	Medium
G4	Corporate Services	Data warehouse	Project to enable market monitoring and analysis function. Data strategy document developed re publication of data in accessible formats for participants via a web based database server encompassing query and visualisation facilities.	2 - High priority	- Measured by each data source being migrated to the data warehouse and being accessible to staff.	Small

724196-1 27 of 31 Published June 2012

#	Team	Name	Project description	Priority 2012/13	Overall performance standard for 2012/13	Initial assessment of project size
G5	Corporate Services	Programme Management Office	Establishment of Virtual PMO (terms of reference completed 2011/12). Development of project management policy, tools and practice.	2 - High priority	- Set out roadmap to achieving desired future state (best practice).	Small
G6	Corporate Services	Website review and refresh	Review to ensure website is fit for purpose.	2 - High priority	Project plan and budget approved - July 2012.Complete and launch new website - June 2013.	Medium
G7	Corporate Services	Non-Financial performance information	Ensuring system and processes in place for reporting against non-financial performance information in the SOI. Includes ensuring OAG and Audit NZ requirements are met (e.g. AG4 standard).	2 - High priority	- Documented support for all non-financial reporting for 2012/13 Annual Report.	Small
G8	Corporate Services	Enhancements to work programme reporting	Work with business units to refine work programme development and reporting process and systems. Specifically to ensure streamlined / aligned reporting tools.	2 - High priority	Improved internal planning and reporting tools - enable meeting Audit NZ requirements for non-financial performance information - rating of "good" or "very good".	Small
G9	Corporate Services	Improvements to Code Amendment Register	Improving the register tool and processes. Improving knowledge of and compliance with processes to support the Register. Ensuring that proposals are assessed and acted upon appropriately.	3 - Important	 Quarterly update rounds completed. Six monthly updates published that are accurate. 	Small
G10	Corporate Services	Improvements to Contracts Register	Improving the register tool and processes. Improving knowledge of and compliance with processes to support the register. Improving the accuracy and timeliness of data in the register.	3 – Important	- Register is up to date and accurate reports are available on demand.	Small

#	Team	Name	Project description	Priority 2012/13	Overall performance standard for 2012/13	Initial assessment of project size
G11	Corporate Services	Knowledge and Records management enhancements	Project work to ensure that the Authority moves towards required practice for knowledge management, record keeping and archiving.	3 - Important	 Achieve at least minimum compliance with Public Records Act requirements as measured by audit process. Classification tidy up completed and implemented. 	Small
G12	Corporate Services	Information systems strategic plan	Part of organisational development strategy (Path to world class): complete "roadmap" plan of information technology requirements for "future state" (5 years).	2 - High priority	- Information systems strategic plan completed.	Small
			Includes systems and hardware for the Authority and service providers (excluding system operator).			
G13	Corporate Services	Communications Strategy	Implementation of the strategy completed in 2011/12.	2 - High priority	- SOI Page 41: completing implementation of the communication strategy developed in 2011/12.	Small
	Implementation	Implementation	Aligns with consumer and participant education programmes (see table D: D14 and D15).		 Implementation completed and content for Annual Report provided. 	
G14	Corporate Services	2013/14 appropriations consultation	Business as usual consultation process plus address ensuring all appropriate inputs are assessed prior to consultation - specifically addressing the system operator capital-related costs identified in 2012–2015 Statement of Intent.	2 - High priority	- Appropriations consultation completed and report provided to the Minister by 31 December 2012.	Small
G15	Legal and Compliance	Refresh participants register	A project to refresh contents of register to ensure it is up to date and accurate.	2 - High priority	- Refresh of register completed.	Small
			NB is not business as usual maintenance of register or a review of the format and scope of the register.			

724196-1 29 of 31 Published June 2012

Glossary of abbreviations and terms

AGC	Automatic governor control
AMI	Advanced metering interface
AOPOs	Asset owner performance obligations
AUFLS	Automatic under-frequency load shedding
Authority	Electricity Authority
Act	Electricity Industry Act 2010
AGC	Automatic governor control
СВА	Cost benefit analysis
Code	Electricity Industry Participation Code 2010
EIEPs	Electronic information exchange protocols
FK	Frequency keeping
MFK	Multiple frequency keepers
PCC	Public conservation campaign
MFM	Market facilitation measures
Regulations	Electricity Industry (Enforcement) Regulations 2010
RAG	Retail Advisory Group
RFP	Request for proposal
SOSPA	System operator service provider agreement
UFM	Under-frequency management
VoLL	Value of lost load
WAG	Wholesale Advisory Group
WITS	Wholesale information trading system

724196-1 31 of 31 Published June 2012