Operational Review of Metering and Related Registry Processes

Consultation proposal for Code amendment

Submissions close: 5pm, Tuesday 13 November 2018

4 September 2018

Contents

1 What you need to know to make a submission

What this consultation paper is about

1.1 The purpose of this consultation paper is to consult with interested parties on a set of proposed changes to Part 10 and Part 11 of the Electricity Industry Participation Code (Code). These proposed changes follow on from an issues paper we released in July 2017.[1] Many of these issues were previously identified by industry participants.

1.2 Part 10 regulates how metering installations are used to accurately measure and record electricity conveyed. This promotes the accurate clearing and settlement of the wholesale electricity market. Part 11 regulates the management of information in the registry of installation control points (ICPs) and the switching of ICPs between traders.

1.3 The proposed changes to Parts 10 and 11 address a number of operational problems that impede the efficient operation of the electricity industry. Fixing these problems will further the Electricity Authority's (Authority) statutory objective.

1.4 Section 39(1) of the Electricity Industry Act 2010 (Act) requires the Authority to consult on any proposed amendment to the Code and the corresponding regulatory statement. The regulatory statement must include a statement of the objectives of the proposed amendment, an evaluation of the proposed amendment's costs and benefits, and an evaluation of alternative means of achieving the proposed amendment's objectives.

1.5 Under section 39(3)(a) of the Act, if the Authority is satisfied a proposed amendment is technical and non-controversial, the Authority need not provide a regulatory statement or consult on the proposed amendment. The Authority considers that five of the 33 proposals in the Operational Review of Metering and Related Registry Processes are technical and non-controversial. Therefore, we have not provided a regulatory statement for them. Although we are not required to consult on the technical and non-controversial changes, we invite comment on all proposals in the Operational Review of Metering and Related Registry Processes.

How to make a submission

1.6 The Authority's preference is to receive feedback via our online consultation platform. In this platform, each of the issues in Table 1 (below) has a separate form for feedback, and general feedback on the consultation and issues from Tables 2 and 3 are grouped into a single form each. If you do not have access to the platform, an electronic copy (Microsoft Word) in the format shown in Appendix D is available on our website.

1.7 Submissions in electronic form should be emailed to submissions@ea.govt.nz with "*Operational Review of Metering and Related Registry Processes*" in the subject line.

1.8 If you cannot send your submission electronically, post one hard copy to either of the addresses below, or fax it to 04 460 8879.

[1] https://www.ea.govt.nz/development/work-programme/operational-efficiencies/operational-review-of-metering-and-related-registry-processes/.

Postal address	Physical address
Submissions Electricity Authority PO Box 10041 Wellington 6143	Submissions Electricity Authority Level 7, ASB Bank Tower 2 Hunter Street Wellington

1.9 Please note we want to publish all submissions we receive. If you consider that we should not publish any part of your submission, please

(a) Indicate which part should not be published

(b) Explain why you consider we should not publish that part

(c) Provide a version of your submission that we can publish (if we agree not to publish your full submission).

1.10 If you indicate there is part of your submission that should not be published, we will discuss with you before deciding whether to not publish that part of your submission.

1.11 However, please note that all submissions we receive, including any parts that we do not publish, can be requested under the Official Information Act 1982. This means we would be required to release material that we did not publish unless good reason existed under the Official Information Act to withhold it. We would normally consult with you before releasing any material that you said should not be published.

When to make a submission

1.12 Please deliver your submissions by **5pm** on Tuesday **13 November 2018**.

1.13 We will acknowledge receipt of all submissions electronically. Please contact the Submissions' Administrator if you do not receive electronic acknowledgement of your submission within two business days.

2 Operational Review of Metering and Related Registry Processes

This paper follows an issues paper published in 2017

2.1 This consultation paper follows on from an issues paper we released in July 2017.[2] The issues paper sought feedback on a number of issues that related primarily to Part 10. Many of these issues had been previously identified by industry participants. Industry participants also identified additional issues as a result of the issues paper.

2.2 We have considered the submissions we received on the July 2017 paper. From this review of submissions, we now propose a number of changes to the Code.

2.3 We have not proposed a Code change for every issue identified in last year's issues paper and/or in submissions on that paper. In some instances, we consider that amending the Code is not necessary to resolve the identified issue and we have explained our reasons. In four instances we wish to investigate the issue further, and so have not included these four issues in this omnibus consultation. Please refer to Table 4.

We expect the proposed changes will further our objective

2.4 The proposed Code changes are intended to:

(a) clarify participants' obligations, leading to increased participant compliance at lower cost

(b) remove from the Code some outdated, ineffective, or obsolete metering-related requirements on participants

(c) ensure the Code's metering-related provisions are not inhibiting innovation in metering technology and related services.

2.5 As discussed in section 3, we expect these changes will promote our statutory objective, particularly by promoting the efficient operation of the electricity industry.

We have set out our proposed resolution of the issues in three appendices

2.6 We have set out our proposed resolution of the issues related to Part 10 in three appendices, as follows:

(a) Appendix A: Code amendment proposals that require a regulatory statement

(b) Appendix B: Code amendment proposals that are technical and non-controversial, which do not require a regulatory statement

(c) Appendix C: Issues that we propose to resolve without a Code amendment.

2.7 Tables 1—3 below list the issues that we propose to address via one of the three options listed above.

2.8 Most of the proposed Code amendment proposals address a discrete issue, but in some places proposed changes intersect or overlap. Because each proposal stands on its own, some may proceed while others may not. Showing the drafting changes separately

[2] https://www.ea.govt.nz/development/work-programme/operational-efficiencies/operational-review-of-metering-and-related-registry-processes/.

allows submitters to assess how each proposed amendment would affect Code obligations.

Table 1: Code amendment proposals requiring a regulatory statement

Reference number	Topic	Page
001	Electrically disconnecting other traders' ICPs	
002	Prohibition of net metering	
003	Recovering certification costs	
004	Distributor NSP information notifications to reconciliation manager	
005	Like-for-like replacements and consultation	
006	Metering issue resolution timing	
007	Minimum voltage requirements	
008	Prevailing load checks	
009	ISO 9001 sync with class B ATH application period	
010	Selected component recertification	
011	Raw meter data and compensation factors	
012	Monitoring of event logs	
013	Raw meter data output test	
014	HHR certification and interrogation cycles	
015	Comparative recertification	
016	Error calculations at certification	
017	Application of error compensation	
018	Certification validity periods	
019	Measuring transformers and burdens	
020	Alternative certification for POC to the grid	
021	Obsolete sticker removal	
022	Inspection periods	

Reference number	Topic	Page
023	Combining certification stickers	
024	NSP decommissioning timeframes	
025	MEP updates of HHR/NHH and AMI flags	
026	Excluding non-market-related meter registers	
027	Meter resealing by traders	
028	Meter bridging	

Table 2: Technical and non-controversial Code amendment proposals

Reference number	Topic	Page
029	Reconciliation manager file format specifications	
030	Distributor notifying reconciliation manager of new NSPs	
031	Content of interrogation logs	
032	Automatic cancellation of metering certification	
033	Measuring transformer terminology	

Table 3: Issues proposed to be addressed without a Code amendment

Reference number	Topic	Page
034	Certification of metering installations and trading	
035	Designating and Metering Network Interconnection Points	
036	Alternative load checks after component recertification	
037	Regulating metering used for non-reconciliation purposes	
038	Daylight savings and time switches	
039	Metering records	
040	In-situ recertification	

Table 4: Issues the Authority is investigating further

Reference	Topic
MEP assuming responsibility	Issues with how and when an MEP takes responsibility for an ICP, and the timing of traders' MEP notifications to the registry.
Initial energisation date necessity	Issues with distributors populating the registry with the correct initial electrical connection date.
NHH decimal places	Issues with how decimal places in raw meter data are managed.
MEP change of ownership	Issues with MEPs wanting to arrange for an orderly exit from the electricity market.
Main switch checks	Safety checking and sealing main switches as part of metering installation certification
Alternative load checks after component recertification	Whether prevailing load checks or an alternative process can be uses in situations where no changes have been made to wiring, configuration, or multipliers.

3 Assessment of the costs and benefits of the proposed Code amendments

We have prepared a single cost benefit analysis for all of the proposals

3.1 Many of the Code amendment proposals in this paper have the same, or similar, costs. Similarly, many of the proposals have the same or similar benefits. Therefore, we have undertaken one cost-benefit analysis (CBA) for all the Code amendment proposals that require a regulatory statement. This is set out here.

We have prepared a qualitative CBA

3.2 We have undertaken a qualitative assessment of the expected benefits and costs of the proposals. We have compared the proposals against the status quo arrangements. We have undertaken a qualitative CBA because it has not been practicable for us to obtain sufficiently robust information on which to base a quantitative CBA. We welcome such information from submitters.

Assessment of proposals' costs

3.3 We expect the majority of proposals would impose relatively minor costs on industry participants, when compared with the status quo arrangements.

3.4 Table 5 summarises our qualitative assessment of the proposals' costs.

Table 5: Assessment of proposals' costs

Material costs
1. Cost on participants for the installation of burden resistors in metering installations.
Minor costs
1. Updating procedures (ATHs, distributors, MEPs, and traders) and template certification reports (ATHs only) 2. Minor process change cost for MEPs if their methodology for calculating recoverable certification costs was inconsistent with the methodology set out in Proposal 004 (Recovering certification costs) 3. Relatively minor operational cost for MEPs who mistakenly do not currently consult with the relevant trader and/or distributor when making a like-for-like replacement of a metering component 4. Relatively minor ongoing operational cost for some MEPs and reconciliation participants who mistakenly do not currently review event logs for metering installations they are responsible for. 5. Some one-off costs for MEPs who need to recertify metering installations on the rare occasions that fail the raw meter data comparison test. 6. Occasional very minor cost for ATHs to note, in the certification report for a metering installation, the reason for a shorter validity period. 7. Very minor ongoing cost for ATHs to remove or obscure an obsolete certification sticker at a metering installation when the ATH is attaching a new certification sticker to the metering installation 8. Relatively minor cost on MEPs to change their processes to ensure the HHR/NHH and AMI flags in the registry are updated within 30 days of a change in the status of the metering installation.

Assessment of proposals' benefits

3.5 We expect the majority of proposals would deliver relatively minor benefits, when compared with the status quo arrangements.

3.6 Table 6 summarises our qualitative assessment of the proposals' benefits.

Table 6: Assessment of proposals' benefits

Material benefits
Material benefits relating to competition in the electricity industry
1. Reducing the transaction costs that a retailer may face in determining whether it can offer services to a potential customer at an ICP
Material benefits relating to the efficient operation of the electricity industry

1. Improving the accuracy of submission information, which would lead to more accurate reconciliation and wholesale market settlement, and more accurate invoicing of participants and consumers
2. Reducing participants', and the Authority's, audit and compliance costs
3. Removing an unnecessary cost for MEPs, arising from their obligation to record metering data in the registry that is not used for reconciliation and settlement of the wholesale electricity market
4. Removing an unnecessary cost for traders, arising from their billing systems managing the additional metering data recorded in the registry
5. Removing unnecessary costs on participants, and ultimately consumers, arising from the unnecessary displacement, or duplication, of metering installations at points of connection where a distributor wishes to bill consumers directly using information that traders' systems cannot accommodate.

Minor benefits

Minor benefits relating to competition in the electricity industry

1. Reducing transaction costs faced by retailers and consumers during the switching of electrically disconnected ICPs
2. Ensuring that traders always receive raw meter data from import and export metering in a format that allows for flexibility in the design of consumer products.

Minor benefits relating to reliable supply by the electricity industry

1. Facilitating the timely electrical connection of consumers
2. Reducing the number of times traders electrically disconnect consumers that are not the traders' customers
3. Helping ensure consumers' metering installations are fit-for-purpose for their connection type.

Minor benefits relating to the efficient operation of the electricity industry

1. Reducing transaction costs faced by retailers and consumers during the switching of electrically disconnected ICPs
2. Ensuring a trader or distributor that electrically disconnected a responsible trader's customer would be required under the Code to reconnect the customer. This would avoid the potential for unnecessary transaction costs on the responsible trader and its customer, if the party at fault did not reconnect the customer
3. Helping to ensure consumers pay for the services they use from, and/or the costs they impose on, the New Zealand electricity market
4. Making the Code easier to understand thereby reducing participants' cost of transacting in the electricity market
5. Making it easier for MEPs to calculate the certification costs payable by an MEP taking responsibility for a metering installation
6. Helping to ensure MEPs consider other participants' needs when changing existing metering installations
7. Promoting the timely resolution of metering issues, thereby minimising adverse effects on customers and unaccounted for electricity in the wholesale electricity market
8. Making it easier for participants to understand the testing requirements for metering components
9. Helping ensure the appropriate tests are performed, in order to have accurate

metering installations

10. Reducing the cost and instances of errors associated with calibrating metering components
11. Reducing unnecessary duplication of effort between MEPs and reconciliation participants around the reviewing of metering event logs
12. Helping ensure ATHs undertake a raw meter data output test appropriately, thereby better ensuring the accuracy of the metering installation being tested
13. Reducing testing costs for some ATHs because of a simplification of the raw meter data output test for electronic meters
14. Ensuring a check to validate the accuracy of volume information provided to the reconciliation manager is performed
15. Removing the possibility of participants incurring unnecessary transaction costs associated with an ATH wrongly using alternative certification for a metering installation at an NSP
16. Improving the accuracy of metering installations by clarifying what is needed to correctly calculate the error of the metering installation
17. Removing the possibility of participants applying error compensation to metering installations that are not at a point of connection to the grid
18. Reducing the possibility of an electronic meter failing because of there being an extended period of time between when the meter was certified and when it was installed
19. Helping ensure metering installations with measuring transformers are accurate by clarifying ATHs' obligations in regard to the treatment of the in-service burden during the certification of a measuring transformer and metering installation
20. Removing an impossible obligation on ATHs to certify measuring transformers in a test laboratory
21. Reducing the number of consumer queries that retailers and the Authority receive, by reducing confusion for consumers about whether their metering installation is certified, and therefore is accurately recording electricity quantities
22. Helping ensure ATHs undertake inspections of category 1 metering installations appropriately and in a timely manner, thereby better ensuring the ongoing accuracy of the metering installation
23. Lowering the cost of certifying metering components and metering installations
24. Establishing clear requirements in the Code around the restoration of communications between an AMI meter and an MEP's back office
25. Reducing the cost faced by some traders in winning customers, by avoiding the need for them to replace a potential customer's metering installation(s)
26. Reducing unaccounted for electricity, thereby improving the accuracy of wholesale market settlement and customer invoicing.

Source: Electricity Authority

3.7 The primary economic benefit identified above is a reduction in transaction costs across the electricity industry. This is a productive efficiency benefit.

3.8 Having said this, by improving the clarity and operation of the Code, the proposed amendments could also deliver dynamic efficiency benefits. A clear, predictable, and up-to-date set of industry rules is good regulatory practice, and can facilitate increased participation in the electricity markets. This in turn might be expected to facilitate all three

limbs of the Authority's statutory objective, and provide both static and dynamic efficiency benefits to the economy.[3]

We believe the proposals will deliver a net benefit

3.9 Based on the qualitative assessment of costs and benefits, we consider the proposed Code amendments in this consultation paper will, in aggregate, deliver a net benefit.

3.10 We welcome submitters' feedback on our assessment of the costs and benefits of the proposals. In particular, we are interested in whether submitters consider any individual proposals do not have a net benefit.

3.11 Please see questions 5, 7, and 8 in Appendix D for specific questions on the costs and benefits of the proposals.

[3] Static economic efficiency benefits can be broken down into allocative and productive efficiency benefits. Allocative efficiency is achieved when the marginal value consumers place on a product or service equals the cost of producing that product/service, so that the total of individuals' welfare in the economy is maximised. Productive efficiency is achieved when products and services that consumers desire are produced at minimum cost to the economy. That is, the costs of production equal the minimum amount necessary to produce the output. A productive efficiency loss results if the costs of production are higher than this, because the additional resources used could instead be deployed productively elsewhere in the economy. Dynamic efficiency is achieved by firms having appropriate (efficient) incentives to innovate and invest in new products and services over time. This increases their productivity, including through developing new processes and business models, and lowers the relative cost of products and services over time.

Appendix A Code amendment proposals that require a regulatory statement

Appendix B Code amendment proposals that are technical and non-controversial

Appendix C Issues that we propose to resolve without a Code amendment

Appendix D Format for submissions

D.1 Please complete the table below for each proposed Code amendment requiring a regulatory statement. Only include those you wish to submit on.

Note: Please use table D2 to submit on technical and non-controversial proposals.

Operational Review of Metering and Related Registry Processes	
Submitter	
Proposal Reference	
Question 1: Do you agree with the Authority's problem definition? If not, why not?	
Question 2: Do you agree with the Authority's proposed solution? If not, why not?	
Question 3: Do you have any comments on the Authority's proposed Code drafting?	
Question 4: Do you agree with the objectives of the proposed amendment? If not, why not?	

Question 5: Do you agree the proposed amendment is preferable to any other alternatives that meet the objectives of the proposed amendment? If not, please explain your preferred option in terms consistent with the Authority's statutory objective in section 15 of the Electricity Industry Act 2010.

D.2 Please complete the table below if you wish to submit on the technical and non-controversial Code proposals in Appendix B.

Question 6: Do you have any comments on any of the technical/non-controversial changes? If so, please note which change and your comments.

D.3 Please complete the table below if you wish to submit on the CBA for the proposals that require a regulatory statement.

Question 7: Do you agree the costs and benefits identified are appropriately categorised? If you disagree, please provide reasons.
Question 8: Do you agree the benefits of the proposals in aggregate outweigh their costs? If you disagree, please provide reasons.

D.4 Please complete the table below if you wish to submit on the issues that we propose to resolve without a Code amendment.

Question 6: Do you require further clarification of any of the issues presented here? If so, please note which issues below and your questions.

Glossary of abbreviations and terms

Authority	Electricity Authority
Act	Electricity Industry Act 2010
Code	Electricity Industry Participation Code 2010