

EA Submissions  
The Electricity Authority  
By email  
submissions@ea.govt.nz

4 November 2019

Dear Electricity Authority,

## **Code Review Programme number 4 - September 2019**

Thank you for the opportunity to submit in relation to the above Code Review.

Mercury supports the Authority's proposed amendments to the Code as part of Programme number 4 – September 2019.

We have only one submission to make in relation to 2019-13. We agree that the definitions of Generating Unit and Intermittent Generating Station should be broadened to enable new generating technologies to participate in the wholesale market. We strongly encourage the Authority to continue its works to capture new renewable generation and energy storage technology in the Code. In particular, we are keen to see further amendments that would permit the owner of a battery energy storage system to offer its injection capacity as a form of reserve response while idle, charging and partially-discharging.

At present, Mercury's 1MW/2MWh grid-connected battery at Southdown in Auckland is unable to offer its injectable reserves as it does not meet the definitions of either "partly loaded spinning reserve" or "tail water depressed reserve" under part 1 of the Code. Mercury would welcome the opportunity to work with the authority to develop the performance requirements and supporting Code amendments needed to allow this change.

Our submission is attached as an Appendix to this letter. Please don't hesitate to contact me at [jo.christie@mercury.co.nz](mailto:jo.christie@mercury.co.nz) or on 09 3086353 if you have any queries in relation to this submission.

Yours sincerely



Jo Christie  
**Regulatory Strategist**



## Appendix: Mercury Submissions

Reference	2019 – 13 Broadening the definitions of Generating Unit and Intermittent Generating Station
<b>Question 1: Do you agree with the Authority's problem definition? If not, why not?</b>	
<p>Mercury agrees with the Authority’s problem definition. The limitations of the current definitions are inhibiting new generating technologies from participating in the electricity spot market and ancillary service markets regulated by the Code.</p> <p>We agree with problem 1 definition of “generating unit” wherein the word “machine” creates uncertainty as to the types of generating plant that use sources of energy other than mechanical force to produce electricity.</p> <p>We agree with problem 2 definition of “intermittent generating station” that it excludes generating stations powered by variable resources other than wind – such as solar and wave energy.</p> <p>Mercury appreciates the work that the Authority has done to capture new renewable generation and energy storage technology in the Code. We would however like to see the Authority progress its work in relation to performance requirements and supporting Code amendments to allow the owner of a battery energy storage system to offer its injection capacity as a form of reserve response while idle, charging and partially-discharging. At present, Mercury’s 1MW/2MWh grid-connected battery at Southdown in Auckland is unable to offer its injectable reserves as it does not meet the definitions of either “partly loaded spinning reserve” or “tail water depressed reserve” under part 1 of the Code.</p> <p>We refer to the Electricity Authority Market Brief 29 May 2018 where the Authority indicated that this work was underway and to the Authority’s reference in this consultation paper at page 88 to work that is being progressed under the “Participation of new generating technologies in the wholesale market” project. Mercury is happy to assist with the change process, as required.</p>	
<b>Question 2: Do you agree with the Authority's proposed solution? If not, why not?</b>	
<p>The Authority has previously confirmed that battery energy storage can be treated as a generating unit for the purposes of offering energy under Part 13 of the Code (Market Brief 29 May 2018).</p> <p>We agree that amending Part 1 section 1.1 of the Code so that:</p> <ul style="list-style-type: none"> <li>a) the definition of a “generating unit” is “all equipment functioning together as a single entity to produce electricity” rather than “a machine that generates electricity” will provide certainty in relation to the status of battery energy storage; and</li> <li>b) the definition of “intermittent generating station” refers to a “generating station that relies on the supply of a variable resource” rather than simply a “wind generating station” will include other types of variable resources such as solar and wave energy.</li> </ul>	



**Question 3: Do you have any comments on the Authority's proposed Code drafting?**

Mercury has no comment on the Authority's proposed Code drafting.

**Question 4: Do you agree with the objectives of the proposed amendment? If not, why not?**

Mercury agrees with the objectives of the proposed amendment. New generating technologies must be enabled to participate in the electricity spot market and ancillary service markets.

**Question 5: Do you agree the benefits of the proposed amendment outweigh its costs? If not, why not?**

Mercury agrees that the proposed Code amendment would have a positive net benefit.

**Question 6: Do you agree the proposed amendment is preferable to the other options? 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.**

The Authority has not identified an alternative means of achieving the objectives therefore Mercury has no comment.

