

Reference number(s)	<b>002 - Prohibition of Net Metering</b>
Related Clause(s)	<p>New clause 10.13A – Metering installation must record imported electricity separately from exported electricity</p> <p>10.13(3) – Electricity conveyed</p> <p>10.24(b) and (c) – Responsibility for ensuring there is metering installation for ICP that is not also NSP</p> <p>4(2)(a) of Schedule 10.7 – Metering equipment provider obligations</p>
Problem definition	<p>“Net metering” is commonly used to refer to the practice of subtracting the volume of any electricity a consumer has generated from the volume of electricity the consumer has imported from the network. Net metering results in consumers being charged only for the net amount.</p> <p>The problem with net metering is that it obscures the full range of services used by a consumer and makes it difficult to charge the appropriate costs of each of the services.</p> <p>To give a practical example, if a consumer generates and exports to the network 5 kWh from their solar PV installation and consumes 5 kWh from the network in the same 30 minute period, the use of net metering will record zero consumption for the half hour. Therefore, the metering data will show the consumer using no services from the NZ electricity market in that half hour when clearly it has used several services, such as a backup service from the local network, transmission services from the national grid and energy from a generator. If charges for these services are based on metered consumption then net metering results in an under-charging for these services.</p> <p>Likewise, if a consumer has non half hour metering and generates 5 kWh during an off-peak electricity demand period, and consumes 5 kWh during a peak electricity demand period, in addition to the metered data recording zero, it will also not account for the difference in electricity spot prices between the peak and off-peak periods.</p> <p>The same situation applies at a multi-phase metering installation, if generation on one phase is subtracted from consumption on another phase:</p> <ul style="list-style-type: none"> <li>a) Instantaneously; or</li> <li>b) during a trading period; or</li> <li>c) in different trading periods.</li> </ul> <p>This subtraction will show the consumer using less (or no) services from the market, or mask spot price differences between trading periods.</p> <p>Therefore, net metering is not cost-reflective on an ICP basis. It results in consumers being unable to see the services they use from, or the costs</p>

	<p>they impose on the electricity market.</p> <p>Although several clauses of the Code<sup>1</sup> currently imply that an MEP must not use net metering when providing raw meter data to the trader responsible for the ICP, the Code does not specifically prohibit net metering. By contrast, clause 10.24(c) prohibits traders from using subtraction to determine submission information.</p>
<p>Proposal</p>	<p>The Authority proposes to amend the Code so that imported and exported electricity are separately metered and recorded for each phase at an ICP, thereby prohibiting net metering by prescribing how the MEP must meter export-capable ICPs.</p> <p>We also propose to amend the Code to clarify that, subject to one proviso, an MEP may, when preparing raw meter data that has been measured and recorded in a multi-phase metering installation:</p> <ul style="list-style-type: none"> <li>a) aggregate all import quantities for the different phases into one amount</li> <li>b) aggregate all export quantities for the different phases into another amount.</li> </ul> <p>The proviso is that any such aggregation must not combine import and export amounts.</p>
<p>Proposed Code amendment</p>	<p><b><u>10.13A Metering installation must record imported electricity separately from exported electricity</u></b></p> <p><b><u>(1) A metering equipment provider must, for each point of connection at which it is the metering equipment provider, ensure that if the metering installation is capable of importing and exporting electricity,—</u></b></p> <ul style="list-style-type: none"> <li><b><u>(a) the metering installation measures and records the imported electricity separately from the exported electricity; and</u></b></li> <li><b><u>(b) the metering installation measures and records the imported electricity and exported electricity separately for each connected phase if the metering installation contains multiple phases.</u></b></li> </ul> <p><b><u>(2) Despite subclause (1), if the metering installation contains multiple phases, the metering equipment provider for the metering installation—</u></b></p> <ul style="list-style-type: none"> <li><b><u>(a) may aggregate together the amounts of imported electricity recorded on different phases; or</u></b></li> <li><b><u>(b) may aggregate together the amounts of exported electricity recorded on different phases; but</u></b></li> <li><b><u>(c) must not aggregate together imported and exported electricity</u></b></li> </ul>

<sup>1</sup> Clauses 10.13(3) and 10.24(b) and (c), and clause 4(2)(a) of Schedule 10.7.

<b>Assessment of proposed Code amendment against section 32(1) of the Act</b>	<p>The proposed Code amendment is consistent with the Authority's statutory objective because it will contribute to the efficient operation of the electricity industry. It will help ensure that consumers pay for the services they use from, and/or the costs they impose on, the New Zealand electricity market. The proposal will also clarify the Code, by clearly prohibiting net metering rather than leaving industry participants to infer this from multiple clauses. This will lead to improved operational efficiency and reduced compliance costs for participants.</p> <p>Accordingly, the proposed amendment is also desirable to promote the efficient operation of the electricity industry in accordance with section 32(1)(c) of the Act.</p> <p>The proposed amendment may have a small positive benefit for competition, by ensuring that traders always receive raw meter data in a format that allows for flexibility in the design of consumer products.</p> <p>The amendment would have no effect on reliability.</p>
<b>Assessment against Code amendment principles</b>	The Authority is satisfied the proposed Code amendment is consistent with the Code amendment principles, to the extent they are relevant.
Principle 1: Lawfulness.	The proposed Code amendment is consistent with the Act, as discussed above in relation to the Authority's statutory objective and the requirements set out in section 32(1) of the Act.
Principle 2: Clearly Identified Efficiency Gain or Market or Regulatory Failure	The proposed amendment is consistent with principle 2 because it addresses an identified efficiency gain, which requires a Code amendment to resolve.
Principle 3: Quantitative Assessment	Please refer to the assessment of costs and benefits in section 3 of the consultation paper.
<b>Regulatory statement</b>	
Objectives of the proposed amendment	<p>To clarify the policy intent in the Code, currently spread over multiple clauses, that net metering is not permitted.</p> <p>To clarify how MEPs must measure and record electricity in multi-phase metering installations.</p>
Evaluation of the costs and benefits of the proposed amendment	Please refer to the assessment of costs and benefits in section 3 of the consultation paper.
Evaluation of alternative means of achieving the objectives of the proposed amendment	The Authority has not identified an alternative means of achieving the objectives of the proposed amendment.