

Compliance Plan for ARC Innovations MEP – 2021

Participants to Provide Accurate Information		
Non-compliance	Description	
<p>Audit Ref: 2.5</p> <p>With: Clause 11.2 and Clause 10.6</p> <p>From: 01-Mar-19</p> <p>To: 12-Nov-20</p>	<p>Some inaccurate registry records.</p> <p>The registry has not been updated as soon as practicable when certification was cancelled for 187 metering installations.</p> <p>Potential impact: Medium</p> <p>Actual impact: Low</p> <p>Audit history: Once</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>	
Audit risk rating	Rationale for audit risk rating	
Low	<p>Controls are recorded as moderate because there is room to improve processes.</p> <p>Very few of the registry related discrepancies have an impact on participants, customers or settlement. The only relevant ones in this regard are tariff related and there were only a small number. The audit risk rating is low.</p>	
Actions taken to resolve the issue		Completion date
<p>For some unknown reason, when we bulk cancelled the certification of 70,000 ICPs, 187 did not update to the Registry, this was around 0.002% that failed to update and no exceptions were received indicating there was an issue with our MEP repository. We have investigated this and were unable to find a clear reason why this happened, but we suspect it was something to do with pushing through such a large number. The 187 will have to be cancelled manually and will be done prior to recertification.</p>		17 Dec 21
Preventative actions taken to ensure no further issues will occur		Completion date
<p>We are not expecting to mass cancel metering installations again but in future, if large numbers of changes are required, we would do them in smaller batches of a couple of days to reduce the chance of uploading errors.</p>		17 Dec 21
		Identified

Changes to Registry Records		
Non-compliance	Description	
<p>Audit Ref: 4.10</p> <p>With: Clause 3 of Schedule 11.4</p> <p>From: 16-Dec-20</p> <p>To: 28-May-21</p>	<p>40 records updated on the registry later than 10 business days.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Multiple times</p> <p>Controls: Strong</p> <p>Breach risk rating: 1</p>	
Audit risk rating	Rationale for audit risk rating	
Low	<p>I have recorded the controls as strong in this area as ARCS has taken all steps it can to ensure updates are made in a timely manner.</p> <p>The impact on settlement and participants is minor; therefore, the audit risk rating is low.</p>	
Actions taken to resolve the issue		Completion date
The delay in updating the records in the registry was due to the distributor not notifying ARCS as MEP of the creation of new ICPs. We tried several times to work with the distributor to provide us with the ICP split information in a timely fashion. However, this has not been forthcoming, and we were only finding out about late updates when the retailer contacted us. We have been working with retailers to identify the ICP split and provide the paperwork in a timely fashion, allowing Registry updates within the required timeframes.		23 Nov 21
Preventative actions taken to ensure no further issues will occur		Completion date
<p>The 10-business day delay is a factor of back dating corrections and not due to late updates by the MEP. Arc Innovations is no longer installing Arc meters.</p> <p>As stated above, we have tried multiple times to work with the distributor to provide us information in a timely manner, but they are unwilling. We believe this project to split ICPs is completed now so do not expect any further issues.</p>		23 Nov 21
		Identified

MEP Response to Switch Notification		
Non-compliance	Description	
<p>Audit Ref: 6.1</p> <p>With: Clause 1(1) of Schedule 11.4</p> <p>From: 16-Dec-20</p> <p>To: 23-Feb-21</p>	<p>Nine late MN files.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: None</p> <p>Controls: Strong</p> <p>Breach risk rating: 1</p>	
Audit risk rating	Rationale for audit risk rating	
Low	<p>I have recorded the controls as strong in this area as ARCS has taken all steps it can to ensure updates are made in a timely manner.</p> <p>There was no impact; therefore, the audit risk rating is low.</p>	
Actions taken to resolve the issue		Completion date
As stated above, the reason for the late MN files was due to the distributor not notifying ARCS of the creation of new ICPs. ARCS has not been accepting MN files for some time now as they are redirected to NGCM to install EDM I meters. In the case of these ICP splits, we have to manually accept MN requests but will only do so once we know the reason behind the request.		23 Nov 21
Preventative actions taken to ensure no further issues will occur		Completion date
<p>The 10-business day delay is a factor of back dating corrections and not due to late updates by the MEP. Arc Innovations is no longer installing Arc meters.</p> <p>As stated above, we have tried multiple times to work with the distributor to provide us information in a timely manner, but they are unwilling. We believe this project to split ICPs is completed now so do not expect any further issues.</p>		23 Nov 21
		Identified

Provision of Registry Information			
Non-compliance	Description		
<p>Audit Ref: 6.2</p> <p>With: Clause 7 (1), (2) and (3) of Schedule 11.4</p> <p>From: 01-Dec-20</p> <p>To: 06-Sep-21</p>	<p>Some registry records incomplete or incorrect.</p> <p>Potential impact: Medium</p> <p>Actual impact: Low</p> <p>Audit history: Multiple times</p> <p>Controls: Strong</p> <p>Breach risk rating: 1</p>		
Audit risk rating	Rationale for audit risk rating		
Low	<p>I have recorded the controls as strong in this area. The number of discrepancies is very small.</p> <p>Very few of the discrepancies have an impact on participants, customers or settlement. The only relevant ones in this regard are tariff related and there were only a small number. The audit risk rating is low.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>We have increased the maximum interrogation cycle for our Gen 2 controllers to 30 days to match the Gen 1 controllers, and to align with our automated AMI flagging process.</p> <p>A very small number of ICPs did not cancel in the registry when we did our bulk cancellation, these will be cancelled manually.</p> <p>There appears to be an increase from last audit in control devices not populated, this cannot be as these are non-AMI (legacy) meters and we have not installed any of these for a couple of years, in fact the number should be dropping with the displacement of Arc metering installations.</p>		Ongoing	Investigating
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>No new occurrences will occur as we are not installing any Arc metering going forward. These numbers will slowly reduce as meters are displaced with other meter types.</p>		Ongoing	

Correction of Errors in Registry		
Non-compliance	Description	
Audit Ref: 6.3 With: Clause 6 of Schedule 11.4 From: 01-Dec-20 To: 06-Sep-21	Discrepancies not resolved within 5 business days. Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2	
Audit risk rating	Rationale for audit risk rating	
Low	I have recorded the controls as moderate in this area. There are still a small number of areas where improvement can be made. Very few of the discrepancies have an impact on participants, customers or settlement. The only relevant ones in this regard are tariff related and there were only a small number. The audit risk rating is low.	
Actions taken to resolve the issue		Completion date
In the previous two audits we were compliant in this area however there has been some backdating going on this audit period mainly due to the ICP splits being conducted by a distributor. Every month we run reconciliation between the Arc systems and the registry and strive to correct any differences within the 5-day requirement, however from time to time we are unable to meet these timeframes. We will continue to review this to ensure we are compliant.		Ongoing
Preventative actions taken to ensure no further issues will occur		Completion date
We will continue to review this process to ensure we are compliant.		Ongoing
		Identified

Cancellation of Certification		
Non-compliance	Description	
<p>Audit Ref: 6.4</p> <p>With: Clause 20 of Schedule 10.7</p> <p>From: 01-Dec-20</p> <p>To: 06-Sep-21</p>	<p>Certification cancelled and registry not updated for:</p> <p>186 Category 1 metering installations, and</p> <p>1 Category 2 metering installation.</p> <p>Potential impact: Medium</p> <p>Actual impact: Low</p> <p>Audit history: Multiple times</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>	
Audit risk rating	Rationale for audit risk rating	
Low	<p>I have recorded the controls as moderate because the registry has been updated for the majority of metering installations.</p> <p>The impact on settlement and participants is minor; therefore, the audit risk rating is low.</p>	
Actions taken to resolve the issue		Completion date
<p>For some unknown reason, when we bulk cancelled the certification of 70,000 ICPs, 187 did not update to the Registry, this was around 0.002% that failed to update and no exceptions were received indicating there was an issue with our MEP repository. We have investigated this and were unable to find a clear reason why this happened, but we suspect it was something to do with pushing through such a large number. The 187 will have to be cancelled manually and will be done prior to recertification.</p>		17 Dec 21
Preventative actions taken to ensure no further issues will occur		Completion date
<p>We are not expecting to mass cancel metering installations again but in future, if large numbers of changes are required, we would do them in smaller batches of a couple of days to reduce the chance of uploading errors.</p>		17 Dec 21
		Investigating

Certification and Maintenance		
Non-compliance	Description	
<p>Audit Ref: 7.1</p> <p>With: Clause 10.38 (a), clause 1 and clause 15 of Schedule 10.7</p> <p>From: 01-Mar-19</p> <p>To: 06-Sep-21</p>	<p>Certification is cancelled or expired for 70,501 Category 1 and 493 Category 2 metering installations.</p> <p>Potential impact: High</p> <p>Actual impact: High</p> <p>Audit history: Multiple times</p> <p>Controls: Weak</p> <p>Breach risk rating: 9</p>	
Audit risk rating	Rationale for audit risk rating	
High	<p>I have recorded the controls as weak, because the issues leading to cancelled certification have been present for many years and the controls were not sufficient to identify them.</p> <p>The impact on settlement, participants and customers is high because approximately 15,000 ICPs are settled as HHR and the HHR data is not accurate to within +/- 2.5%. HHR settlement is inaccurate for each HHR interval and consumers purchasing electricity based on the spot price will not be paying the correct amount for each HHR interval.</p>	
Actions taken to resolve the issue		Completion date
<p>These can be split into two camps for discussion.</p> <p>2,014 legacy metering (ARCM) is part of Vector metering's 'Fantail' project where we are working with some retailers to find new solutions to addressing these installations that have access or health and safety issues.</p> <p>The remaining approximate 69,000 ICPs recently had their certification cancelled due to issues discovered in a previous audit. The category 1 ICPs are being recertified using a statistical sampling process, this is underway and is expected to be completed by the end of March 2022.</p> <p>Category 2 ICPs are being displaced with priority as part of the Arc displacement program, this process will take longer due to less available cat 2 technicians. The displacement project is currently displacing in excess of 150 metering installations per day.</p>		31 May 22
Preventative actions taken to ensure no further issues will occur		Completion date
<p>We do not expect any further cancellations in addition to the current ones which will mostly be resolved early next year.</p> <p>Bulk of Arc meter displacements will be completed next year with a small tail to clean up into 2023.</p>		31 May 22
		Remedial action status
		Identified

Active and Reactive Capability		
Non-compliance	Description	
<p>Audit Ref: 7.3</p> <p>With: Clause 10.37(1) and 10.37(2)(a)</p> <p>From: 01-Mar-19</p> <p>To: 06-Sep-21</p>	<p>Generation 1 Category 2 meters not capable of measuring and recording reactive energy.</p> <p>Potential impact: None</p> <p>Actual impact: None</p> <p>Audit history: Twice previously</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>	
Audit risk rating	Rationale for audit risk rating	
Low	<p>The controls are recorded as moderate because they mitigate risk most of the time but there is room for improvement.</p> <p>There doesn't appear to be any impact, therefore the audit risk rating is low.</p>	
Actions taken to resolve the issue		Completion date
<p>Arc Innovations have never been asked to provide reactive energy and if we were asked, we would displace these meters with EDM I smart meters capable of complying with this clause.</p> <p>Whilst we accept this non-compliance our only way to comply is to displace all our Cat 2 meters which we are currently doing.</p>		30 Jun 22
Preventative actions taken to ensure no further issues will occur		Completion date
Displacing Arc Cat 2 metering is prioritized as part of the Arc displacement program.		30 Jun 22
		Identified

Timekeeping Requirements		
Non-compliance	Description	
Audit Ref: 7.10 With: Clause 23 of Schedule 10.7 From: 01-Dec-20 To: 06-Sep-21	30 ICPs with time clocks that are not monitored every 12 months. Potential impact: Low Actual impact: Low Audit history: Once previously Controls: None Breach risk rating: 5	
Audit risk rating	Rationale for audit risk rating	
Low	There isn't a process in place to check the time setting on these meters, therefore the controls are recorded as none. The impact on settlement and participants could be minor; therefore, the audit risk rating is low.	
Actions taken to resolve the issue		Completion date
Process will be put in place and where monitoring is required, a job will be raised to displace the Arc meter and replace with a EDMl smart meter. For the 30, they are already cancelled, and we will look at getting these displaced as quickly as possible.		Ongoing
Preventative actions taken to ensure no further issues will occur		Completion date
Run monitoring each month and displace metering prior to 12 months so installation remains compliant.		Ongoing

Interim Certification		
Non-compliance	Description	
<p>Audit Ref: 7.19</p> <p>With: Clause 18 of Schedule 10.7</p> <p>From: 01-Apr-15</p> <p>To: 06-Sep-21</p>	<p>1,781 ICPs with expired interim certification.</p> <p>Potential impact: High</p> <p>Actual impact: Medium</p> <p>Audit history: Multiple times</p> <p>Controls: Moderate</p> <p>Breach risk rating: 4</p>	
Audit risk rating	Rationale for audit risk rating	
Medium	<p>I have recorded the controls as moderate in this area because certification has been expired for five years for these ICPs.</p> <p>The impact on settlement is recorded as moderate because of the increased likelihood of failure or inaccuracy for metering installations with expired certification, therefore the audit risk rating is medium.</p>	
Actions taken to resolve the issue		Completion date
We are finding many barriers to upgrading these older meters, we share this information with the EA on a regular basis. The majority of the expired metering installations stated above are in the Central Hawkes Bay region and are being addressed by the Fantail project, where we are working with some retailers to identify new ways to address old issues.		Ongoing
Preventative actions taken to ensure no further issues will occur		Completion date
This is an ongoing process and we are looking into previous blockers and how we can tackle these jobs with successful outcomes.		Ongoing
		Identified

Electronic Interrogation of Metering Installations			
Non-compliance	Description		
Audit Ref: 10.5 With: Clause 8(2)(a) of Schedule 10.6 From: 01-Dec-20 To: 06-Sep-21	Registry maximum interrogation cycle exceeded for a number of meters. Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	I have recorded the controls as moderate as there is a process in place to in place to change the AMI flag to "N" if data cannot be collected, but the threshold used does not meet the requirements for meters with an interrogation cycle of one day. The impact on settlement and participants is minor; therefore, the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
We have changed the maximum interrogation cycle for our Gen 2 controllers to 30 days, this will now match that of the Gen 1 controllers. We now fully comply with the requirement to ensure any non-communicating metering installations have their AMI flag set to 'N' within 25% of their max interrogation cycle, if the communications cannot be restored prior. Because our entire fleet has cancelled certification at the moment, there is no requirement to cancel any certifications because of this.		23 Nov 21	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
Non-compliance cleared and all Arc smart metering set to 30 days max interrogation cycle in line with our new automated system. This will not occur again.		23 Nov 21	

Time Errors for Metering Installations		
Non-compliance	Description	
<p>Audit Ref: 10.7</p> <p>With: Clause 8(4) of Schedule 10.6</p> <p>From: 01-Dec-20</p> <p>To: 06-Sep-21</p>	<p>299 examples of clock errors outside the allowable thresholds in the most recent reports.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Multiple times</p> <p>Controls: Strong</p> <p>Breach risk rating: 1</p>	
Audit risk rating	Rationale for audit risk rating	
Low	<p>The controls are recorded as strong because interrogation is attempted daily, and clock errors are addressed during all interrogations.</p> <p>The impact on settlement and participants is minor; therefore, the audit risk rating is low.</p>	
Actions taken to resolve the issue		Completion date
<p>All clock errors are corrected during the interrogation and if they are outside the 'Code' limits, they are reported to each Retailer. Our internal thresholds are set lower than the limits stated in the Code, i.e. +/- 5 Secs Cat 2 & +/- 15 Secs Cat 1. Clock errors that repeatedly or excessively exceed the limits set out in the Code are investigated by our technical team. The team will attempt a manual correction, and if unsuccessful, will replace the device. We have reduced the period between the identification of these errors and their investigation.</p>		Ongoing
Preventative actions taken to ensure no further issues will occur		Completion date
<p>Our time correction is predominantly automated. We have begun a full fleet replacement program which will address this non-compliance.</p>		2023
		Identified

Investigation of AMI interrogation failures		
Non-compliance	Description	
<p>Audit Ref: 10.12</p> <p>With: Clause 8(11), 8(12) and 8(13) of Schedule 10.6</p> <p>From: 01-Feb-21</p> <p>To: 31-Aug-21</p>	<p>Reporting and processes not in place to resolve interrogation issues or change the AMI flag to "N" at 25% of the MIC or 30 days.</p> <p>Requirement to complete an interrogation of meters within 25% of maximum interrogation cycle not met for meters with a maximum interrogation cycle of 1 day.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: None</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>	
Audit risk rating	Rationale for audit risk rating	
Low	<p>The controls are recorded as moderate as reporting had been put in place at the time of the audit, but the threshold used does not meet the requirements for meters with an interrogation cycle of one day.</p> <p>The impact on settlement and participants is minor; therefore, the audit risk rating is low.</p>	
Actions taken to resolve the issue		Completion date
<p>We have changed the maximum interrogation cycle for our Gen 2 controllers to 30 days, this will now match that of the Gen 1 controllers. We now fully comply with the requirement to ensure any non-communicating metering installations have their AMI flag set to 'N' within 25% of their max interrogation cycle, if the communications cannot be restored prior.</p> <p>Because our entire fleet has cancelled certification at the moment, there is no requirement to cancel any certifications because of this.</p>		23 Nov 21
Preventative actions taken to ensure no further issues will occur		Completion date
<p>Non-compliance cleared and all Arc smart metering set to 30 days max interrogation cycle in line with our new automated system. This will not occur again.</p>		23 Nov 21
		Cleared