Compliance plan for Auckland Transport DUML Audit – 2018

Non-compliance	Description
Audit Ref: 2.1 With: From: 01-Jun-17 To: 30-Apr-18	4 ICPs with DUML reconciled without a database. Over submission because of dimming being used. The impact on submission is unknown. The wattage report is adjusted outside of RAMM specifically in relation to the LED light values this is resulting in an estimated under submission of 1,169,418.59 kWh if the wattages in RAMM are correct. The database accuracy is assessed to be 99.6% indicating an estimated over submission of 213,200 kWh per annum if the database was used for submission without the current LED light adjustments being made. Incorrect ballasts recorded in RAMM indicate an over submission of an estimated 546,518.44 kWh per annum (excluding LED lights which are being adjusted outside of RAMM as discussed in **sections 2.1** & **3.1**). 50 items of load with no light or wattage recorded. 206 items of load with an invalid light description. Potential impact: High Actual impact: Unknown Audit history: Twice Controls: Weak Breach risk rating: 9
Audit risk rating	**Rationale for audit risk rating**
High	The controls are rated as weak due to the inaccuracies and discrepancies found. The audit risk rating is high due to the kWh hours.

Actions taken to resolve the issue	Completion date	Remedial action status

4 ICPs with DUML reconciled without a database Contact will work with AT to identify via field audit whether the lights associated with these ICPs are included in the DUML database against a different ICP number. It is likely that the lights associated with these ICPs are being counted twice as this is what had occurred with 3 other ICPs Contact and AT investigated in 2017. ***Over submission because of dimming being used*** The current regulations around unmetered loads do not cater for the concept of dynamic dimming which results in over submission of energy volumes as a consequence. AT and Contact have committed to working together to find a solution to for this issue either by the creation and approval of a dynamic profile or a rule change to treat the central management system operating these lights as a 'virtual' HHR meter. ***The wattage report is adjusted outside of RAMM*** The adjustments made to the wattage report to Contact outside of RAMM appear to be an attempt to adjust the connect load values in recognition that RAMM has a number of inaccurate light types populated that would result in an overstatement of load. AT have committed to conducting a full field audit of the entire light population – the outcome of this full field audit will remove the need for this practice ***The database accuracy is assessed to be 99.6%*** AT have committed to conducting a full field audit of the entire light population – the outcome of this full field audit will improve further the database accuracy. ***Incorrect ballasts recorded in RAMM*** Contact will work with AT to identify and correct these in conjunction with the full field audit of their entire streetlight population. This two pronged approach is expected improved the population of ballast values in a relatively short period of time. ***50 items of load with no light or wattage recorded*** AT have committed to conducting a full field audit of the entire light population – the outcome of this full field audit will improve further the database accuracy. ***206 items of load with an invalid light description*** AT have committed to conducting a full field audit of the entire light population – the outcome of this full field audit will improve further the database accuracy	Aug 2018 Dec 2018 Oct 2018 Oct 2018 Oct 2018 Oct 2018 Oct 2018	Investigating
Preventative actions taken to ensure no further issues will occur	**Completion date**	

ICP Identifier	
Non-compliance	**Description**
Audit Ref: 2.2 With: 11(2)(a) and (aa) of Schedule 15.3 From: Unknown To: 30-Apr-18	4 ICPs with no database associated to record the ICP against each item of load. Potential impact: High Actual impact: High Audit history: Twice Controls: Weak Breach risk rating: 9
Audit risk rating	**Rationale for audit risk rating**
High	The controls are rated as weak as there is no database for four ICPs. The audit risk is rated as high as this equates to 129,629.75 kWh per annum.

Actions taken to resolve the issue	Completion date	Remedial action status
4 ICPs with DUML reconciled without a database Contact will work with AT to identify via field audit whether the lights associated with these ICPs are included in the DUML database against a different ICP number. It is likely that the lights associated with these ICPs are being counted twice as this is what had occurred with 3 other ICPs Contact and AT investigated in 2017.	Aug 2018	Investigating
Preventative actions taken to ensure no further issues will occur	**Completion date**	

Location of each item of load	
Non-compliance	**Description**
Audit Ref: 2.3 With: 11(2)(b) of Schedule 15.3 From: Unknown To: 30-Apr-18	4 ICPs with no database associated. 54 items of load with insufficient details recorded to locate these. Potential impact: High Actual impact: High Audit history: Twice Controls: Weak Breach risk rating: 9
Audit risk rating	**Rationale for audit risk rating**
High	The controls are rated as weak as there is no database for four ICPs, but the location was recorded for all but 54 items of load. The audit risk is rated as high as this equates to 129,629.75 kWh per annum.

Actions taken to resolve the issue	Completion date	Remedial action status
4 ICPs with DUML reconciled without a database Contact will work with AT to identify via field audit whether the lights associated with these ICPs are included in the DUML database against a different ICP number. It is likely that the lights associated with these ICPs are being counted twice as this is what had occurred with 3 other ICPs Contact and AT investigated in 2017. ***54 items of load with insufficient location details*** AT have committed to conducting a full field audit of the entire light population – the outcome of this full field audit will improve further the database accuracy	Aug 2018 Oct 2018	Investigating
Preventative actions taken to ensure no further issues will occur	**Completion date**	

Description and capacity of load	
Non-compliance	**Description**
Audit Ref: 2.4 With: 11(2)(c) and (d) of Schedule 15.3 From: 01-Jun-17 To: 30-Apr-18	4 ICPs with no database associated. 50 items of load with no light or wattage recorded. 206 items of load with an invalid light description. Potential impact: Low Actual impact: Low Audit history: Twice Controls: Moderate Breach risk rating:
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are rated as moderate as the majority of the load is recorded in the RAMM database. The audit risk rating is low as the volume of lights represents less than 1% of the overall lights in the database.

Actions taken to resolve the issue	Completion date	Remedial action status
4 ICPs with DUML reconciled without a database Contact will work with AT to identify via field audit whether the lights associated with these ICPs are included in the DUML database against a different ICP number. It is likely that the lights associated with these ICPs are being counted twice as this is what had occurred with 3 other ICPs Contact and AT investigated in 2017. ***50 items of load with no light or wattage recorded*** AT have committed to conducting a full field audit of the entire light population – the outcome of this full field audit will improve further the database accuracy. ***206 items of load with an invalid light description*** AT have committed to conducting a full field audit of the entire light population – the outcome of this full field audit will improve further the database accuracy [Participant comment]	Aug 2018 Oct 2018 Oct 2018]	Investigating
Preventative actions taken to ensure no further issues will occur	**Completion date**	

All load recorded in database	
Non-compliance	**Description**
Audit Ref: 2.5 With: 11(2A) of Schedule 15.3 From: 01-Jun-17 To: 30-Apr-18	4 ICPs with no database. Not all load recorded in the database (51 additional lights found or 5% of the load sampled). Potential impact: High Actual impact: High Audit history: Twice Controls: Weak Breach risk rating: 9
Audit risk rating	**Rationale for audit risk rating**
High	The controls are rated as weak due to the four ICPs with no database and the volume of additional lights found in the field. The audit risk rating is high as the level of inaccuracy found for this large database has a major impact on reconciliation.

Actions taken to resolve the issue	Completion date	Remedial action status
4 ICPs with DUML reconciled without a database Contact will work with AT to identify via field audit whether the lights associated with these ICPs are included in the DUML database against a different ICP number. It is likely that the lights associated with these ICPs are being counted twice as this is what had occurred with 3 other ICPs Contact and AT investigated in 2017. ***The database accuracy is assessed to be 99.6%*** AT have committed to conducting a full field audit of the entire light population – the outcome of this full field audit will improve further the database accuracy.	Aug 2018 Oct 2018	Investigating
Preventative actions taken to ensure no further issues will occur	**Completion date**	

Tracking of load change	
Non-compliance	**Description**
Audit Ref: 2.6 With: 11(3) of Schedule 11.3 From: 01-Jun-17 To: 30-Apr-18	4 ICPs with no database associated. New streetlights not captured in RAMM when they are electrically connected. Festive lighting not recorded in RAMM but is being reconciled. Potential impact: High Actual impact: Unknown Audit history: Twice Controls: Moderate Breach risk rating: 6
Audit risk rating	**Rationale for audit risk rating**
High	Controls will mitigate risk most of the time but there is room for errors to occur. I cannot calculate the kWh value for the new subdivisions, but due to Auckland Transports DUML size and the new developments occurring I believe the audit risk rating to be high.

Actions taken to resolve the issue	Completion date	Remedial action status
4 ICPs with DUML reconciled without a database Contact will work with AT to identify via field audit whether the lights associated with these ICPs are included in the DUML database against a different ICP number. It is likely that the lights associated with these ICPs are being counted twice as this is what had occurred with 3 other ICPs Contact and AT investigated in 2017.	Aug 2018	Investigating
New streetlights not captured in RAMM when they are electrically connected Once AT complete their LED roll out, Contact will work with AT around processes for new connection streetlight population and management – it is likely that AT's SLV central controller can ensure these new lights are non operational until vested to the council	2019	
Festive lighting not recorded in RAMM but is being reconciled Contact will work with AT regarding what is the best mechanism to ensure festive lights are accounted for within their RAMM database	Dec 2018	
Preventative actions taken to ensure no further issues will occur	**Completion date**	

Audit trail			
Non-compliance	**Description**		
Audit Ref: 2.7 With: 11(4) of Schedule 15.3 From: Unknown To: 30-Apr-18	4 ICPs with no database and therefore no audit trail. Potential impact: High Actual impact: High Audit history: Twice Controls: Moderate Breach risk rating: 6		
Audit risk rating	**Rationale for audit risk rating**		
High	The controls are rated as weak as there is no database for four ICPs. The audit risk is rated as high as this equates to 129,629.75 kWh per annum.		
Actions taken to resolve the issue		**Completion date**	**Remedial action status**
4 ICPs with DUML reconciled without a database Contact will work with AT to identify via field audit whether the lights associated with these ICPs are included in the DUML database against a different ICP number. It is likely that the lights associated with these ICPs are being counted twice as this is what had occurred with 3 other ICPs Contact and AT investigated in 2017.		Aug 2018	Investigating
Preventative actions taken to ensure no further issues will occur		**Completion date**	

Database accuracy			
Non-compliance	**Description**		
Audit Ref: 3.1 With: Clause 15.2 and 15.37B(b) From: 01-Jun-17 To: 30-Apr-18	4 ICPs with DUML no database. The database accuracy is assessed to be 99.6% indicating an estimated over submission of 213,200 kWh per annum. Incorrect ballasts recorded in RAMM indicate over submission of an estimated 546,518.44 kWh per annum (excluding LED lights which are being adjusted outside of RAMM as discussed in **sections 2.1** & **3.2**). 50 items of load with no light or wattage recorded. 206 items of load with an invalid light description. Potential impact: High Actual impact: High Audit history: Twice Controls: Weak Breach risk rating: 9		
Audit risk rating	**Rationale for audit risk rating**		
High	The controls are rated as weak, as the incorrect ballasts have been reported for two years and not yet corrected. The impact is assessed to be high, based on the kWh differences described above.		
Actions taken to resolve the issue		**Completion date**	**Remedial action status**

4 ICPs with DUML reconciled without a database Contact will work with AT to identify via field audit whether the lights associated with these ICPs are included in the DUML database against a different ICP number. It is likely that the lights associated with these ICPs are being counted twice as this is what had occurred with 3 other ICPs Contact and AT investigated in 2017. ***The database accuracy is assessed to be 99.6%*** AT have committed to conducting a full field audit of the entire light population – the outcome of this full field audit will improve further the database accuracy. ***Incorrect ballasts recorded in RAMM*** Contact will work with AT to identify and correct these in conjunction with the full field audit of their entire streetlight population. This two pronged approach is expected improved the population of ballast values in a relatively short period of time. ***50 items of load with no light or wattage recorded*** AT have committed to conducting a full field audit of the entire light population – the outcome of this full field audit will improve further the database accuracy. ***206 items of load with an invalid light description*** AT have committed to conducting a full field audit of the entire light population – the outcome of this full field audit will improve further the database accuracy	Aug 2018 Oct 2018 Oct 2018 Oct 2018 Oct 2018	Investigating
Preventative actions taken to ensure no further issues will occur	**Completion date**	

Non-compliance	Description
Audit Ref: 3.2 With: 15.37B(c) From: 01-Apr-18 To: 31-May-18	4 ICPs with DUML reconciled without a database. Incorrect profile of RPS HHR applied to 46 ICPs Over submission because of dimming being used. The impact on submission is unknown. The wattage report is adjusted outside of RAMM specifically in relation to the LED light values this is resulting in an estimated under submission of 1,169,418.59 kWh if the wattages in RAMM are correct. The database accuracy is assessed to be 99.6% indicating an estimated over submission of 213,200 kWh per annum if the database was used for submission without the current LED light adjustments being made. Incorrect ballasts recorded in RAMM indicate an over submission of an estimated 546,518.44 kWh per annum (excluding LED lights which are being adjusted outside of RAMM as discussed in **sections 2.1** & **3.1**). 50 items of load with no light or wattage recorded. 206 items of load with an invalid light description. Potential impact: High Actual impact: Unknown Audit history: None Controls: Weak Breach risk rating:
Audit risk rating	**Rationale for audit risk rating**
High	The controls are rated as weak due to the inaccuracies and discrepancies found. The audit risk rating is high as it has no material impact on submission.

Actions taken to resolve the issue	Completion date	Remedial action status

4 ICPs with DUML reconciled without a database Contact will work with AT to identify via field audit whether the lights associated with these ICPs are included in the DUML database against a different ICP number. It is likely that the lights associated with these ICPs are being counted twice as this is what had occurred with 3 other ICPs Contact and AT investigated in 2017.	Aug 2018	Choose an item.
Incorrect profile The incorrect profile on the registry issue is a result of a system defect – currently a fix is underway to prevent this issue from occurring. A manual work around is currently in place to update the registry where required	July 2018	
Over submission because of dimming being used The current regulations around unmetered loads do not cater for the concept of dynamic dimming which results in over submission of energy volumes as a consequence. AT and Contact have committed to working together to find a solution to for this issue either by the creation and approval of a dynamic profile or a rule change to treat the central management system operating these lights as a 'virtual' HHR meter.	Dec 2018	
The wattage report is adjusted outside of RAMM The adjustments made to the wattage report to Contact outside of RAMM appear to be an attempt to adjust the connect load values in recognition that RAMM has a number of inaccurate light types populated that would result in an overstatement of load. AT have committed to conducting a full field audit of the entire light population – the outcome of this full field audit will remove the need for this practice	Oct 2018	
The database accuracy is assessed to be 99.6% AT have committed to conducting a full field audit of the entire light population – the outcome of this full field audit will improve further the database accuracy.	Oct 2018	
Incorrect ballasts recorded in RAMM Contact will work with AT to identify and correct these in conjunction with the full field audit of their entire streetlight population. This two pronged approach is expected improved the population of ballast values in a relatively short period of time.	Oct 2018	
50 items of load with no light or wattage recorded AT have committed to conducting a full field audit of the entire light population – the outcome of this full field audit will improve further the database accuracy.	Oct 2018	
206 items of load with an invalid light description AT have committed to conducting a full field audit of the entire light population – the outcome of this full field audit will improve further the database accuracy		

Preventative actions taken to ensure no further issues will occur	Completion date	