

# Rail Electrification and Extension from Papakura to Pukekohe Updates

## Glossary

Auckland Council	(AC)
Auckland Electrified Area	(AEA)
Auckland Plan	(AP)
Auckland Transport	(AT)
Construcciones y Auxiliar de Ferrocarriles	(CAF)
Diesel Multiple Unit	(DMU)
Electric Multiple Unit	(EMU)
KiwiRail Group	(KRG)
New Zealand Transport Agency	(NZTA)
North Auckland Line	(NAL)
North Island Main Trunk Line	(NIMT)
Onehunga Branch Line	(OBL)
Regional Land Transport Programme	(RLTP)
Rapid Transit Network	(RTN)

## Executive Summary

### Item 1: Auckland Rail Electrification Update

AT and KRG are currently undertaking preparatory works for electrification of the Auckland Rail Network between Papakura and Swanson Stations, with the first EMU services being tested and commissioned from September 2013. The target is for EMU passenger services to be introduced from December 2013, initially on the OBL. The remainder of the EMU fleet will be introduced in stages until the full fleet is in service under current programme timelines in mid-2016.

The electrification projects can be grouped as follows:

- a) **Installation and commissioning of electrification infrastructure:** overhead wires, gantries, earthing of stations, etc., primary responsibility with KRG.
- b) **Station and depot infrastructure:** preparation for electrification includes construction of an EMU depot at Wiri, upgrading of a number of existing stations to a common standard, construction of a new station at Parnell, ensuring sufficient stabling for the EMU fleet. Responsibility is primarily with AT;
- c) **Procurement of new EMU fleet:** Including operational transitioning from the existing DMU and diesel locomotives to the new EMUs. Responsibility rests with AT.
- d) **Operational readiness for electrification:** Training of staff, train drivers and contractors for working within an electrified environment, agreement on responsibility for maintaining electrification assets, agreement on safety provisions for public and contractors, communications with the public and other stakeholders. Responsibility is jointly AT and KRG, with significant input from Veolia.

The focus of this report is on projects (a) and (b) above.

Whilst overall progress is on target to date, the complexities inherent in the delivery and operational transition to an electrified service mean that the risks remain high. In particular this relates to the dependencies between projects undertaken by both AT and KRG.

## Item 2: Electrification Extension from Papakura to Pukekohe

The current rail electrification project is planned to terminate at Papakura, with diesel shuttle services to run between Papakura and Pukekohe every 30 minutes. Electrification of the rail network between Papakura and Pukekohe is a named project in the draft AP, with an indicative timing of 2021 to 2040.

An opportunity exists to reduce the overall cost of this project by implementing it within the next few years and thus taking advantage of the expertise and resources available at the end of the current electrification project. A small number of additional EMUs would be required and it is also likely that these would be cheaper to purchase now, by extending the existing contract, than to order them at a later date.

Significant benefit would also be realised through the reduction in operating costs by replacing the diesel shuttle services with EMUs

A number of options have been examined with the indicative preferred option having a preliminary estimate of \$100m and a BCR of 3.9.

Further work is required to confirm these preliminary figures, to analyse potential to achieve NZTA subsidy and to assess the input on priority projects within the current LTP that would need to be deferred should this project be included. The intention is to report back to the Board on completion of this work.

Drury and Paerata have been identified as potential station sites along this route, attracting new passengers and providing an opportunity to rationalise bus services in this area

In parallel, the options for rail services between Swanson and Waitakere will also need to be reviewed and assessed as these are also proposed to operate as diesel shuttles post-electrification.

## Recommendations

It is recommended that the Board:

- i). Receive the report
- ii). Approves development of a detailed cost report and work programme and report back to the Board.

## Item 1: Auckland Rail Electrification Update

### Strategic Context

Electrification of the Auckland rail network is a priority project for AT and KRG with the first EMU services being tested and commissioned from September 2013.

### Current Status

#### a) Installation and commissioning of electrification infrastructure

In order to mitigate the interface risk associated with the dependent project being delivered by AT and KRG a crucial requirement is clear communication between the organisations and a joint approach to the management of the electrification programme, along with close engagement with Veolia and CAF as key stakeholders. A joint programme of works (Attachment 1) has been prepared that illustrates the dependencies between the electrification projects and provides a tool for management of the interface risks. Any risks or issues that are likely to threaten the overall delivery of the electrification

programme will be escalated to a joint Auckland Electrification Steering Group to provide senior-level strategic decision making to complement existing tactical discussions ongoing at the project level.

At the project level, the bridge raising works have reached an advanced stage, with all expected to be complete by early May 2012. This includes jointly-funded projects such as Orakei Road bridge and the Ellerslie Station upgrade involving KRG, AT and NZTA.

KRG's installation of electrification infrastructure is underway, with signalling largely complete, gantry mast foundations installed across large sections of the rail network and overhead lines in place on the OBL and NAL from Swanson through to Henderson. Earthing and bonding of rail stations is currently underway on the same lines, close to completion on the OBL and in progress at stations from Swanson through to Kingsland on the NAL.

## **b) Station and depot infrastructure**

Track realignment works have been largely completed over the Christmas rail shutdown at the site of the future Parnell station and have been started at Papakura. Station upgrades are at detailed design phase at other key stations, with construction tenders being issued in April 2012 for the initial series of projects including Mt Albert, Onehunga, Remuera, Greenlane, Penrose and Otahuhu stations, as well as for the continuation of Papakura.

## **Key Risks**

Key risks are detailed in the appendices and generally vary between green and amber 'traffic light' risk status (Attachment 2). However, the many dependencies between the various electrification projects are significant and as there are a significant number of amber risks identified the overall risk to delivery has been rated as high.

The principle mitigation strategy for managing these dependencies is the proactive management of a joint AT/KRG/CAF/Veolia programme linking the various projects and allowing exploration of options should one or more projects be delayed or accelerated. This programme has been developed in a draft form and AT is awaiting further information from KRG confirming programmes for a number of key projects, principally the programmes for the signalling, traction and electrification screening.

The programme will be used by AT and KRG to jointly manage the delivery of Auckland electrification and inform the escalation of risks and issues to a joint strategic forum for discussion and decision making.

## **Next Steps**

The programme to complete all electrification traction and earthing and bonding work before commissioning in August 2013 remains challenging.

- a) Installation and commissioning of electrification infrastructure:** Before individual sections of the network can be commissioned for testing, electrification screens need to be in place on associated pedestrian and road bridges. The electrification screens are at detailed design stage

The first line to be tested will be the OBL, indicatively planned by KRG for April 2012 (awaiting confirmation of programmed activities from KRG). The OBL does not have any bridges, so screening is not required. The NAL from Swanson through to Penrose via Newmarket will be the next to be tested, indicatively planned for June 2012, by which time the electrification screens need to be in place. Once the overhead lines are in place and commissioned, all station activities on these lines will take place in a live environment which requires significant levels of additional training for the workforce.

**b) Station infrastructure:** NZTA subsidy has been approved for Onehunga, Remuera and Penrose stations and further approvals are expected later in March 2012. Detailed design is underway for Papakura and Mt Albert stations, with Swanson to follow shortly. Parnell detailed design will commence once NZTA subsidy approval has been confirmed. Tenders will be invited for Greenlane, Onehunga, Otahuhu, Penrose and Remuera stations later in March 2012. A further four stations are planned for a full upgrade in the 2012/13 financial year along with an upgrade of lighting and CCTV at a further five stations.

**c) Operational readiness for electrification:**

The remaining AT AEA Awareness training is expected to be completed prior to commissioning of the OBL in April, which will ensure no disruption in the upgrade of Onehunga station or regular maintenance activities.

AT Infrastructure, AT Operations, EMU Depot Team, EMU Project Team and KRG meet regularly to discuss the interface between the two organisations and the implications arising from electrification. As well as coordination of upgrade projects, agreement on responsibility for replacement and maintenance of the new electrification assets – transformers, earth terminals, screens – is ongoing. Similarly, there are unique safety implications at some stations – e.g. canopies of heritage buildings potentially encroaching into the electrified zone - that will need specific agreement between both organisations on the best remedy. Issues requiring escalation will be referred to the joint AEP forum for resolution as required.

## Communications

Two weeks prior to testing and livening of the OBL KRG are planning a public communications campaign. AT Communications are currently engaging with KRG to agree messaging and produce these communications jointly.

## Item 2: Electrification Extension from Papakura to Pukekohe

### Strategic Context

The draft AP identifies Pukekohe as one of the eight growth areas that are a priority for (page 33) planning and investment in the short term. Pukekohe is classified as a Satellite which is an urban settlement that is significant in servicing a wide rural catchment. Satellites such as Pukekohe are identified as the focus for growth in the rural areas.

The AP also identifies the RTN extending along the existing railway line as far as Pukekohe indicating that a higher frequency train service is planned for Pukekohe in the future. Transport projects for the next three decades are listed in the draft AP and include electrification of rail to Pukekohe as a named project in the second and third decade (2021 to 2040).

Drury is shown as a town centre on the electrified railway line but is not one of the first priority areas for the draft AP. Drury is between Papakura and Pukekohe, but does not currently have a functioning railway station. Any consideration of improvements between Papakura and Pukekohe needs to also consider the benefits and costs of reopening the Drury Station.

## Background

### Options Analysed

A preliminary business case has been prepared based on NZTA's Economic Evaluation Manual to determine the benefit/cost ratio of extending the electrified rail network to Pukekohe. Several options have been assessed as follows (service frequencies mentioned are peak period):

- **Do Minimum** – Electrification terminates at Papakura and diesel shuttles run between Papakura and Pukekohe (existing plan – a diesel shuttle every 30 minutes)
- **Option 1** – Build Drury station (no service or electrification changes)
- **Option 2** - Electrify to Pukekohe (no new stations or changes to services)
- **Option 3** - Electrify to Pukekohe and build Drury station (no service changes)
- **Option 4** - Electrify to Drury only, an electric train every 10 minutes to Drury, and a diesel shuttle every 30 minutes to Pukekohe
- **Option 5** - Electrify to Pukekohe and build Drury station, an electric train every 10 minutes to Drury and every 30 minutes to Pukekohe
- **Option 6** - Electrify to Pukekohe and build Drury station, an electric train every 10 minutes to Pukekohe
- **Option 7** - Electrify to Pukekohe with an electric train every 10 minutes, do not open Drury station

The proposed upgrade of Pukekohe is included as part of this proposed scope of works. The station upgrade at Pukekohe includes a dedicated park and ride facility, cycle parking and improving connections to adjacent bus services.

### Benefits / Cost Analysis

The preliminary BCR for Option 5 is 2.9 and rises to 3.9 if Paerata station is constructed (see option 5+P)

Further detailed analysis will be presented to the board as it becomes available.

#### Option BCR/Cost summary table

*(Note: Indicative cost information is based on the current electrification project, the recently signed tender for providing new EMU's and the current rail station upgrading programme)*

OPTION	DESCRIPTION	COST (\$m)	BCR
1	Existing plus Drury, no electrification	6m	n/a
2	Existing frequency plus electrify to Pukekohe	92m	1.2
3	Existing frequency plus electrify to Pukekohe plus Drury station	<b>98m</b>	1.5
4	Electrify to Drury and a train every 10 min to Drury	<b>31m</b>	0.7
5	Electrify to Pukekohe with a train every 30 min, plus a train every 10 min to Drury	<b>98m</b>	2.9
5L	Option 5 delayed to 2020	<b>147m</b>	1.2
5 + P	Option 5 plus Paerata station	<b>100m</b>	3.9
6	Electrify to Pukekohe, a train every 10 min, plus Drury station	<b>125m</b>	1.1
7	Electrify to Pukekohe, a train every 10 min, NO Drury	<b>119m</b>	0.8

The present value of costs for option 5 is \$23.4m. While the capital cost is over \$98m, there is a significant off setting operating cost saving due to replacing diesels by EMUs and this amounts to around \$6m p.a. from the opening year until the end of the 30-year evaluation period in 2044.

The present value of benefits from option 5 is \$68.7m. Allowing for both peak and inter peak periods, the total annual new passengers give benefits of \$6m per annum in 2016.



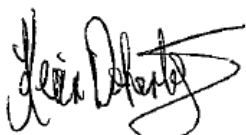
## Next Steps

- Review additional EMU requirement and incorporate into the business case
- Refinement of costs and benefits within the business case
- Review the impact of including the project within the LTP on other project programming and assess the likelihood of this achieving NZTA subsidy.

## Attachments

**Attachment 1** – AEP Integrated programme

**Attachment 2** – Workstream Update - February 2012

<b>WRITTEN BY</b>	Nick Seymour <b>Project Director Rail/Ferry Improvements</b>	
<b>RECOMMENDED by</b>	Claire Stewart <b>Corporate Manager Special Projects</b>  Kevin Doherty <b>Chief Infrastructure Officer</b>	 
<b>APPROVED FOR SUBMISSION by</b>	David Warburton <b>Chief Executive</b>	

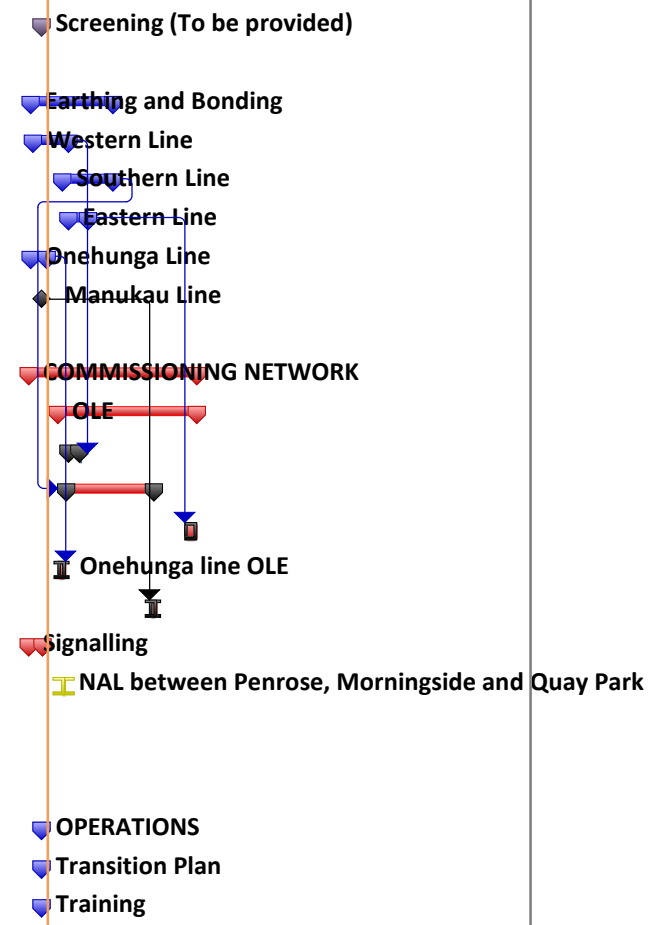
ID	Task Name	Duration	Start	Finish	2011		2012		2013		2014		2015		2016		2017		2018	
					S	J	M	S	J	M	S	J	M	S	J	M	S	J	M	S
1	<b>EMU's</b>	<b>251.2 wks?</b>	<b>Fri 30/09/11</b>	<b>Sun 24/07/16</b>																
2	<b>Delivery and Commissioning</b>	<b>251.2 wks</b>	<b>Fri 30/09/11</b>	<b>Sun 24/07/16</b>																
3	1st EMU manufacture	87.2 wks	Fri 30/09/11	Fri 31/05/13																
4	EMUs 2 thru 57 Manufacture	164.2 wks	Fri 7/09/12	Fri 30/10/15																
5	Delivery of 1st EMU	0 days	Tue 30/07/13	Tue 30/07/13																
6	1st EMU Testing and Commissioning on Site	9 wks	Tue 30/07/13	Mon 30/09/13																
7	Delivery of EMUs 2 thru 57	152 wks	Tue 27/08/13	Sun 24/07/16																
8	Other Deliverables	223.2 wks	Fri 21/10/11	Fri 29/01/16																
9	<b>Commissioning on Network</b>	<b>0.2 wks?</b>	<b>Mon 30/09/13</b>	<b>Tue 1/10/13</b>																
10	To be developed																			
11																				
12	<b>INFRASTRUCTURE</b>	<b>145 wks?</b>	<b>Mon 17/01/11</b>	<b>Fri 25/10/13</b>																
13	<b>Bridge works (list)</b>	<b>32.8 wks?</b>	<b>Tue 11/10/11</b>	<b>Fri 25/05/12</b>																
20																				
21	<b>STATIONS</b>	<b>117.2 wks?</b>	<b>Fri 1/04/11</b>	<b>Fri 28/06/13</b>																
22	<b>Swanson Station and PnR</b>	<b>87.2 wks</b>	<b>Fri 1/04/11</b>	<b>Fri 30/11/12</b>																
27	<b>Mt Albert Station</b>	<b>83 wks?</b>	<b>Fri 1/04/11</b>	<b>Thu 1/11/12</b>																
33	<b>Onehunga Station platform ext.</b>	<b>30.6 wks</b>	<b>Tue 1/11/11</b>	<b>Thu 31/05/12</b>																
37	<b>Remuera Station</b>	<b>30.4 wks</b>	<b>Thu 1/12/11</b>	<b>Fri 29/06/12</b>																
41	<b>Greenlane Station</b>	<b>34.6 wks</b>	<b>Thu 1/12/11</b>	<b>Mon 30/07/12</b>																
45	<b>Penrose Station</b>	<b>39.2 wks</b>	<b>Thu 1/12/11</b>	<b>Thu 30/08/12</b>																
49	<b>Westfield (Future TBC)</b>	<b>65.2 wks</b>	<b>Thu 1/12/11</b>	<b>Thu 28/02/13</b>																
54	<b>Otahuhu</b>	<b>30.6 wks</b>	<b>Tue 1/11/11</b>	<b>Thu 31/05/12</b>																
59	<b>Puhinui</b>	<b>43.4 wks</b>	<b>Thu 1/12/11</b>	<b>Fri 28/09/12</b>																
64	<b>Parnell</b>	<b>78 wks</b>	<b>Mon 2/01/12</b>	<b>Fri 28/06/13</b>																

Project: AEP Programme v02 13 F Date: Tue 14/02/12	Task		External Milestone	◆	Manual Summary Rollup	
	Split		Inactive Task	□	Manual Summary	
	Milestone	◆	Inactive Milestone	◇	Start-only	
	Summary		Inactive Summary	□	Finish-only	
	Project Summary		Manual Task		Deadline	
	External Tasks		Duration-only		Progress	





ID	Task Name	Duration	Start	Finish	2011		2012		2013		2014		2015		2016		2017		2018	
					S	J	M	S	J	M	S	J	M	S	J	M	S	J	M	S
185																				
186	Screening (To be provided)	0.2 wks?	Tue 24/01/12	Tue 24/01/12																
188																				
189	Earthing and Bonding	39.8 wks?	Mon 19/12/11	Thu 20/09/12																
190	Western Line	17.2 wks?	Mon 26/12/11	Mon 23/04/12																
207	Southern Line	24.6 wks	Tue 3/04/12	Thu 20/09/12																
225	Eastern Line	9.6 wks	Tue 24/04/12	Thu 28/06/12																
231	Onehunga Line	8 wks	Mon 19/12/11	Fri 10/02/12																
235	Manukau Line	0 wks	Tue 24/01/12	Tue 24/01/12																
237																				
238	COMMISSIONING NETWORK	81 wks?	Mon 12/12/11	Fri 28/06/13																
239	OLE	67 wks	Mon 19/03/12	Fri 28/06/13																
240	Western Line OLE	5.2 wks	Tue 24/04/12	Tue 29/05/12																
242	Southern line OLE	42.2 wks	Mon 16/04/12	Mon 4/02/13																
247	Eastern line OLE	6 wks	Mon 20/05/13	Fri 28/06/13																
248	Onehunga line OLE	4 wks	Mon 19/03/12	Fri 13/04/12																
249	Manukau line OLE	3.8 wks	Mon 21/01/13	Thu 14/02/13																
250	Signalling	7 wks	Mon 12/12/11	Fri 27/01/12																
257	NAL between Penrose, Morningside and Quay Park	0.6 wks	Fri 6/04/12	Tue 10/04/12																
258	put in other signalling blocks																			
259																				
260	OPERATIONS	0.2 wks	Tue 24/01/12	Tue 24/01/12																
261	Transition Plan	0.2 wks	Tue 24/01/12	Tue 24/01/12																
263	Training	0.2 wks	Tue 24/01/12	Tue 24/01/12																





















Project: AEP Programme v02 13 F  
Date: Tue 14/02/12

Task		External Milestone		Manual Summary Rollup	
Split		Inactive Task		Manual Summary	
Milestone		Inactive Milestone		Start-only	
Summary		Inactive Summary		Finish-only	
Project Summary		Manual Task		Deadline	
External Tasks		Duration-only		Progress	







ID	Task Name	Duration	Start	Finish	2011		2012			2013			2014			2015			2016			2017			201
					S	J	M	S	J	M	S	J	M	S	J	M	S	J	M	S	J	M	S	J	M
265	<b>Inter-agency agreements</b>	<b>0.2 wks</b>	<b>Tue 24/01/12</b>	<b>Tue 24/01/12</b>																					
266	<b>Construction</b>	<b>0.2 wks</b>	<b>Tue 24/01/12</b>	<b>Tue 24/01/12</b>																					
268	<b>Ownership</b>	<b>0.2 wks</b>	<b>Tue 24/01/12</b>	<b>Tue 24/01/12</b>																					
270	<b>Operations</b>	<b>0.2 wks</b>	<b>Tue 24/01/12</b>	<b>Tue 24/01/12</b>																					
272	<b>Electricity supply agreement</b>	<b>0.2 wks</b>	<b>Tue 24/01/12</b>	<b>Tue 24/01/12</b>																					
274																									
275																									
276	<b>COMMUNICATIONS</b>	<b>0.2 wks</b>	<b>Tue 24/01/12</b>	<b>Tue 24/01/12</b>																					
278	<b>POLITICAL</b>	<b>0.2 wks</b>	<b>Tue 24/01/12</b>	<b>Tue 24/01/12</b>																					
280	<b>VEOLIA INTERFACE</b>	<b>0.2 wks</b>	<b>Tue 24/01/12</b>	<b>Tue 24/01/12</b>																					





Project: AEP Programme v02 13 F  
Date: Tue 14/02/12






Task		External Milestone		Manual Summary Rollup	
Split		Inactive Task		Manual Summary	
Milestone		Inactive Milestone		Start-only	
Summary		Inactive Summary		Finish-only	
Project Summary		Manual Task		Deadline	
External Tasks		Duration-only		Progress	






## Workstream Update



Month: February 2012

Workstream		Area	Update from last month	Status	Focus for next month	Responsibility	When
AEP Combined Programme	1.1	Overall programme document	Draft comprehensive programme prepared, confidence level on some KRG programmes lower than desired.		Incorporate feedback on format, improve ability to track dependencies, run scenarios.	Joint: Kevin Doherty/Murray Hood	30 March 2012
	1.2	AT Projects	Information obtained and included in programme		Ensure regular updates from projects	AT: Kevin Doherty/Murray Hood	Ongoing
	1.3	KRG Projects	Some information received and included in programme. No recent updates received on the following project programmes: <ul style="list-style-type: none"> <li>• Traction Installation</li> <li>• Signalling</li> <li>• Electrification Screening</li> </ul> Some Earthing & Bonding info outstanding.		Obtain updated programmes for the outstanding information. Until this information is received, AT project decisions based on the programme can have low confidence only, increasing the risk that At projects are adversely affected.	KRG: Kevin Doherty/Murray Hood	15 March 2012
Bridge Raising Works	2.1	Road Bridges	Majority of physical works were completed over December/January block of line. Few significant AEP risks remain.		End April completion for Orakei Rd, Mountain Rd, Morrin Rd and Mt Wellington bridges.	Joint: Kevin Doherty/Rick Walden/Murray Hood	30 April 2012
	2.2	Station Footbridges	Majority of physical works were completed over December/January block of line. Few significant AEP risks remain. Otahuhu South footbridge complete.		End April completion for Puhinui and Orakei Station footbridges.	KRG: Kevin Doherty/Rick Walden/Murray Hood	30 April 2012
	2.3	Ellerslie SH1 Widening	Combined NZTA/AT/KRG project including AEP bridge raising. Bridge raising complete and only station-related and passenger access works remain.		End March completion for all but lift tower works. Lift towers complete by end April 2012	Joint: Kevin Doherty/Rick Walden/Murray Hood	30 April 2012

Workstream		Area	Update from last month	Status	Focus for next month	Responsibility	When
Installation of AEP Traction Equipment and Signalling	3.1	Signalling	AT understands that the majority of signalling work is now complete excluding Wiri to Papakura.		Wiri-Papakura signalling has been delayed from the Easter block of line to June 2012. No impact on AEP expected, however AT currently has no visibility of a recent programme and particularly when testing is scheduled.	KRG: Kevin Doherty/Rick Walden/Murray Hood	15 March 2012
	3.2	Traction	Progress has been good to date, with half of mast foundations installed and overhead lines up on Onehunga line and Swanson to Henderson.		AT has no current visibility of traction programme and understands that the KRG contractor is having difficulty meeting the AEP timetable. Rescheduling of works could have an adverse impact on AT projects, e.g. station upgrades.	KRG: Kevin Doherty/Rick Walden/Murray Hood	15 March 2012
	3.3	Commissioning	Commissioning of the overhead line has been scheduled for Easter for the Onehunga Line and June for the NAL Swanson to Penrose. AT is awaiting information from KRG on dates for other lines.		More certainty on future commissioning dates is required. AT working with KRG to obtain comprehensive programme.	KRG: Kevin Doherty/Rick Walden/Murray Hood	15 March 2012
Installation of Earthing, Bonding and Screening Equipment	4.1	Earthing & Bonding	Bonding works at an advanced state on Onehunga Line and underway at NAL stations between Swanson and Kingsland. AT has appointed an electrical engineer to provide independent assurance on KRG's E&B methodology.		Completion of initial report for AT on KRG E&B methodology. AT has limited visibility of KRG E&B timetable and is seeking further information given the challenging timetable. Earthing works expected to be complete before April on Onehunga Line and before June on NAL Penrose to Swanson.	KRG: Kevin Doherty/Rick Walden/Murray Hood	31 March 2012

Workstream		Area	Update from last month	Status	Focus for next month	Responsibility	When
	4.2	Electrification Screening	Bridge screening of overhead electrification equipment to prevent public access. KRG, AC and AT site visits on western line (Swanson – Grafton) to discuss locations of vertical screens. No programme has been shared with AT, so limited confidence on readiness for installation in June 2012 ahead of commissioning of the NAL Swanson – Penrose overhead line.		No screening required on Onehunga Line but will be needed for NAL Swanson – Penrose before June 2012. Screens currently at end of detailed design stage.	KRG: Kevin Doherty/Rick Walden/Murray Hood	31 March 2012
Station Upgrade Programme	5.1	Parnell Station	Track works initiated over December/January complete. Design work for station underway.		Continuation of station design and land discussions. Overall station construction expected to run to end 2013 but	AT: Kevin Doherty/Rick Walden	Ongoing
	5.2	2011/12 Upgrades	NZTA have approved funding for Remuera, Onehunga and Penrose stations, others remain under consideration. Detailed design work on Papakura, Swanson, Mt Albert stations underway and largely complete for Otahuhu, Greenlane, Penrose, Onehunga and Remuera.		Physical works tenders to be issued for Mt Albert, Onehunga, Otahuhu, Remuera, Penrose and Greenlane stations. Ongoing design work at Papakura and Swanson stations. Expected response from NZTA on outstanding funding by end March 2012.	AT: Kevin Doherty/Rick Walden	31 March 2012
	5.3	2012/13 Upgrades	Westfield, Te Mahia, Puhinui and Takanini stations planned, with funding application to NZTA		Ongoing discussions with NZTA, initiation of projects planned for July 2012.	AT: Kevin Doherty/Rick Walden	1 July 2012
	5.4	CCTV Upgrades	Installation of CCTV and lighting on extended platforms at 5 stations: Mt Eden, Papatoetoe, Orakei, Meadowbank and Glen Innes. No funding from NZTA approved to date.		Relatively low value works and limited impact if works take place once the overhead line is in place. Continued focus on obtaining NZTA funding.	AT: Kevin Doherty/Rick Walden	Ongoing

Workstream		Area	Update from last month	Status	Focus for next month	Responsibility	When
	5.5	Design-only Upgrades	Initial design-only funding application to NZTA on Drury and Pukekohe Stations rejected.		Discussion with NZTA to provide more information as required to secure funding.	AT: Kevin Doherty/Rick Walden	Ongoing
Training for the Auckland Electrified Area (AEA)	6.1	AT Staff and Contractors	AT rail project and key roading project staff completed training, infrastructure contractors trained.		Significant numbers of maintenance contractors remain to be trained. Priority list compiled with AT Operations and intention all training be complete before Onehunga Line commissioning in April 2013.	AT: Kevin Doherty/Rick Walden/Mark Lambert	31 March 2012
	6.2	Veolia Staff	Understood that all Veolia key staff have completed training.		Seek formal confirmation from KRG and Veolia that training is completed ahead of Onehunga Line commissioning.	AT/Veolia: Kevin Doherty/Rick Walden/Mark Lambert	31 March 2012
	6.3	KRG Staff and contractors	Understood that all KRG key staff and contractors have completed training.		Seek formal confirmation from KRG that training is completed ahead of Onehunga Line commissioning.	KRG: Kevin Doherty/Rick Walden/Murray Hood	31 March 2012
Coordination of Operational and Procedural Change	7.1	Agreement on Respective Responsibilities	Fortnightly discussions between AT and KRG underway to agree transitional issues so that post-electrification operations run smoothly.		<p>Considerable work to do still. Issues to be resolved are:</p> <ul style="list-style-type: none"> <li>• Maintenance and replacement responsibility for electrification assets.</li> <li>• Agreement on safety measures on stations</li> <li>• Understanding of needed methodology changes and cost implications for station maintenance, construction and work</li> </ul>	Joint: Kevin Doherty/Rick Walden/Murray Hood	30 June 2012

Workstream		Area	Update from last month	Status	Focus for next month	Responsibility	When
					near level crossings or rail bridges/		
Communications	8.1	Commissioning of the overhead line	KRG planning communications to public 2 weeks prior to Onehunga Line commissioning at Easter		Important that public communications are jointly created in future as AT stations will be primary point of contact between the public and electrified system.	Joint: Sharon Hunter/Jenni Austin	31 March 2012
Platform/Train Interface (PTI)	9.1	Platform length	There is a risk that trains will be too long for some of the existing 140m platforms. CAF 6-car EMUs are expected to be 144m in length and allowance must be made for stopping distance.		Confirmation of number of stations affected, cost to increase platform lengths and development of a strategy to address this – some can be lengthened as part of station upgrades, others may require specific works between now and August 2013.	Joint: Kevin Doherty/Rick Walden/Murray Hood	31 March 2012