Auckland Transport
An Auckland Council Organisation

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Rob Ford
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Dear Mr Ford

Local Government Official Information and Meetings Act 1987

CAS-168397-R5Y9G4

Thank you for contacting Auckland Transport (AT) on 6 December 2015 requesting information regarding proposed battery powered trains.

Auckland Transport's response to the specific questions raised is as follows:

What is the estimated cost associated with purchasing a new battery train and retrofitting an existing unit?

Battery powering Auckland's new EMUs to enable operations outside the electrified network is still under investigation but analysis completed so far is promising. Further engineering investigations are required to determine the most appropriate battery technology and how to integrate the battery and existing EMU systems for best control and operation. Delivering the required range and speed performance within mass and volume limitations, while maintaining fire safety and whole of life cost, isn't the easiest problem to solve.

When the work is further advanced accurate cost estimates will be undertaken and decisions made on whether retrofitting or building new vehicles provides the best outcome. Your request for this information is therefore declined under section 17(g) of the LGOIMA as the information requested is not held.

The total project cost including 57 x 3 car EMUs, depot, on-board signalling equipment and all associated activities was $630m. The price premium to include batteries and associated control equipment is somewhat difficult to predict due to the rapidly developing battery market which is experiencing cost reductions. Our current planning estimate is for a 20% cost premium.

Has testing of this technology succeeded?

AT is aware of a very successful battery EMU trial undertaken by Network Rail in the UK earlier last year that appears to have met or surpassed all the objectives set.

If the testing is not yet complete, when is it expected to be completed?

AT is currently still in the exploration stage. We need to determine battery technology and associated control systems, source the equipment, install and then test. At best this would be 6 months lead time but could extend to 12 or 18 months depending on how the process unfolds.

If the concept proves to be viable for Papakura to Pukekohe services AT considers the testing component will be relatively small in the context of the overall project, compared to detailed design and the lead time required for sourcing the correct equipment.

If the testing was successful, when is the estimated date of delivery?

For new EMUs the absolute minimum supply lead time would be two years from order placement, and any order placement is dependent on availability of funding which necessarily requires successful development of the technical solution and associated business case.

If the testing was unsuccessful, will full electrification to Pukekohe be brought forward?

The AT Strategy and Planning team regularly review the priority of rail developments including electrification extensions based on current usage, future demand modelling and available cost estimates.

We trust the above information has addressed the matters raised however, should you believe that we have not responded appropriately to your request, you have the right in accordance with section 27(3) of the LGOIMA to make a complaint to the Office of the Ombudsman to seek an investigation and review in regard to this matter.

If you have any further queries, please contact me on (09) 355 3553 during business hours, quoting Local Government Official Information request number CAS-168397-R5Y9G4.

Yours sincerely

Lloyd Major

EMU Project Director