

PUBLIC ACCOUNTABILITY COMMITTEE
**INQUIRY INTO THE IMPACT OF THE
CBD AND SOUTH EAST LIGHT RAIL
PROJECT**



QUESTIONS ON NOTICE
ALSTOM RESPONSE

ALSTOM TRANSPORT AUSTRALIA PTY LTD
ABN 68 165 157 451

QUESTION 1:

The Hon. GREG DONNELLY: How many spaces will there be available for wheelchairs on the set?

Mr COXON: I am sorry—I do not have that detail to hand. I will have to take that on notice, and I will come back to you. There is an area for wheelchairs. I just do not know the precise number of wheelchairs that can fit in it.

ANSWER:

There are six wheelchair spaces per LRV, i.e. 12 per coupled LRV.

QUESTION 2:

The Hon. GREG DONNELLY: Are there specific seating provisions for people with a physically disability or the elderly or is it a case that all seats are essentially universal and you grab what you can get?

Mr COXON: Yes, I believe there are specific areas for disabled access and seating capability.

ANSWER:

There are four Courtesy seats per LRV i.e. eight per coupled LRV

QUESTION 3:

The Hon. GREG DONNELLY: That is fine. With respect to the links, the 66 metres, what is the difference—if there is one—in the noise generated by the operation of the light rail? Obviously if you had it in a single configuration of 33 metres it would produce a noise of some volume. If you double that, how is that calculated? Is it able to be calculated and compared to a single set?

Mr COXON: Yes. We have a noise model. We have to operate the light rail vehicles within the constraints set by the project and by the Department of Planning and Environment, and that is a noise guarantee.

With respect to the noise differential between whether it is running a single or coupled version, I would have to take that question on notice.

ANSWER:

As each unit of the coupled LRV is identical, the coupled LRV has the same noise level as a single LRV. However, the time during which the noise is heard is doubled when compared with a single unit.

The coupled configuration is taken into account in the noise model used to ensure the LRV meets the Planning Approval Requirements. Recent tests using the physical LRV have confirmed LRV noise levels are below those used in the model. This confirms the LRV's meet the DPE noise requirements.

QUESTIONS 4& 5

The Hon. GREG DONNELLY: With respect to the fully loaded 66-metre Citadis, with its passengers and anything it might be carrying and the actual total weight, if I give you questions on notice can they be answered? All those calculations presumably are available and have been done?

Mr COXON: Sorry, you would like to know—

The Hon. GREG DONNELLY: The weights of the unladen and the laden?

Mr COXON: Oh, yes, okay. I will take those on notice. I can provide that information. If I understand clearly, you would like to know what the weight of the unloaded vehicle is and the loaded vehicle?

The Hon. GREG DONNELLY: Yes.

Mr COXON: At full capacity?

The Hon. GREG DONNELLY: Yes, at full capacity.

Mr COXON: At full capacity. Okay, I will take that on notice.

The Hon. TREVOR KHAN: That would be a standard sort of thing that is done in all these exercises, would it not?

Mr COXON: Yes, that is part of the calculation.

The Hon. TREVOR KHAN: You are not going to be calculating for us?

Mr COXON: That is right—no, no. I just do not have that information available with me today but clearly when we designed the system and the power requirements for the system we have taken into account the traction system, the weight of the vehicle loaded.

The Hon. TREVOR KHAN: Sure.

The CHAIR: You will take that question on notice?

Mr COXON: Yes.

ANSWER:

The unloaded weight of each LRV is 45,696 kg

The fully loaded weight of each LRV is 69,883 kg

QUESTION 6:

The Hon. COURTNEY HOUSSOS: Would that require upgrades on the inner west line along that particular part in terms of power?

Mr COXON: There are some upgrades. I am not familiar with all the details. I can take that on notice to give you the information if there are any upgrades required. I do not think they are substantial and if they are, they are already part of the project scope.:

ANSWER:

In terms of power this depends on the number of LRV's running on the IWLR, currently there are no upgrades required.

QUESTION 7:

The Hon. GREG DONNELLY: With respect to the Citadis X05, what is the steepest incline that a fully loaded set could mount?

Mr COXON: Much steeper than they are currently. I think it is around six or eight degrees. I will take the point on notice if I can, because I cannot be 100 per cent sure, but it is much steeper than the gradients we have.

ANSWER:

The Citadis X05 safely operates at inclines of 7.5% which is above SLR requirements.

QUESTION 8:

The Hon. GREG DONNELLY: When do you expect to start the commissioning of all of them concurrently together?

Mr COXON: I would have to take that on notice in terms of the final leg of the zone. I think it is after the middle of 2019. The last leg at the moment planned will be the Kingsford leg. That one I will have to take it on notice when we are planning to start that. I cannot recall.

ANSWER:

As indicted in the September 2018 DPPR; Start of full line dynamic testing: Feb 4th, 2020

QUESTION 9:

The Hon. GREG DONNELLY: When you will be starting the commissioning of the full length for both Circular Quay to Randwick and Circular Quay to Kensington? Are you taking that on notice?

Mr COXON: Yes.

ANSWER:

As indicted in the September 2018 DPPR; start of full line dynamic testing: Feb 4th, 2020.

QUESTIONS 10 & 11

The Hon. COURTNEY HOUSSOS: Which cities in the world do operate at six per square metre?

Mr COXON: I would have to take that on notice. They can—I do not know which ones do. All the trams have the capability to operate to six people per square metre. I do not know how many of them have been designed for six people per square metre, if that is your question.

The Hon. COURTNEY HOUSSOS: My question was: You referred to other places around the world that operate where there are six persons per square metre.

Mr COXON: I said that you can increase the capacity to six people per square metre.

The Hon. SHAYNE MALLARD: But to be clear, what you are supplying is for four—that is the specification.

Mr COXON: That is the specification, yes, but the space is a space, a square metre is a square metre. If more people want to—

The Hon. TREVOR KHAN: It is a fairly universal size, a square metre.

Mr COXON: A square metre, yes.

The Hon. COURTNEY HOUSSOS: But could you provide us on notice if there is anywhere around the world where they do operate as standard six people—

Mr COXON: As a standard capacity basis, yes, I will take that on notice.

ANSWER:

From our understanding, typical high density cities in countries such as Japan and Hong-Kong operate above 4p/m² on a usual basis.

QUESTION 12:

The CHAIR: Could you table a timetable for the completion dates for each of those sections?

Mr COXON: Yes, I will take that on notice.

ANSWER:

As indicted in September 2018 DPPR: May 2019 for Zone Randwick, Sept 2019 for Zone Surry Hills, November 2019 for Zone CBD and February 2020 for Zone Kingsford

QUESTION 13:

The CHAIR: What is the deadline for that completion date?

Mr COXON: We will start the middle of next year.

The CHAIR: When is it concluded?

Mr COXON: It should conclude the middle of next year. I am happy to take that on notice as part of the commissioning program you asked for.

The CHAIR: You seem to be a long way from the middle of next year with the amount of work that needs to be done.

Mr COXON: On the Randwick line?

The CHAIR: On all the lines?

Mr COXON: I am not talking about all the lines, no. I thought the question was with respect to the Randwick line.

The CHAIR: No, the whole line.

ANSWER:

As indicted in September 2018 DPPR: Deadline for Randwick Zone T&C completion is May 2019

QUESTION 14:

The Hon. GREG DONNELLY: How many doors on each side of the double configuration? If you are not sure, take it on notice.

Mr COXON: I will take it on notice. I can tell you they are all double doors. I cannot recall whether there are three or four on the side. We have a few vehicles at the Randwick depot and we can confirm that.

ANSWER:

There are six double doors per side per LRV i.e. 12 double doors per side per coupled LRV

QUESTION 15:

The Hon. COURTNEY HOUSSOS: Around the world where you do operate the systems, how many normally operate in each direction each hour?

Mr COXON: That depends on the requirements of the system. I think this project is similar to other projects around the world. I am happy to take that on notice and give you a comparison of the headways of different systems which we have designed around the world.

ANSWER:

In terms of headway, the average, based on more than 60 lines operated worldwide, is slightly below 4 min, a typical range would be from 3 to 8 mins.

QUESTION 16:

The Hon. TREVOR KHAN: Do you have an understanding now as to what work is going to happen at the Randwick stabling yards, as opposed to the heavy maintenance yards?

Mr COXON: Yes. The light maintenance will take place at the Randwick depot, so the cleaning and inspections will take place at the Randwick depot. And the heavy maintenance, for example the wheel grinding as the wheels start to wear down, that will take place at Rozelle, Lilyfield, the heavy maintenance depot.

The Hon. TREVOR KHAN: What is light maintenance?

Mr COXON: The cleaning, the inspections, the electrical inspection. I am happy to take that on notice to give you a definitive description of the light and heavy maintenance.

ANSWER:

Light maintenance includes cleaning, visual check; sand refill and minor defect rectification, as opposed to heavy maintenance (collision repair, wheel reprofiling, etc...) The light maintenance activities are not considered noisy.

QUESTION 17:

The Hon. TREVOR KHAN: Will that go on not only during the day but also at night?

Mr COXON: I am not sure today. I will take that on notice. I am not clear of what the exact maintenance plan is, as to whether or not there will be a night shift to do that maintenance as well. You mean in both locations?

The Hon. TREVOR KHAN: Yes.

ANSWER:

If needed, some heavy maintenance will take place at night in Lillyfield. At Randwick, priority is given to the daytime maintenance activities. In general, light maintenance activities are not noisy and will at all times be compliant with Planning requirements.

QUESTION 18:

The Hon. TREVOR KHAN: Clearly, from what we have heard from some of the residents, this stabling

yard backs on to residential accommodation, so it is of interest to all members of this Committee to know what you are going to be doing there in the middle of the night.

Mr COXON: Yes. I think it will be minimal but I will come back with the details on that.

The CHAIR: You can take that on notice.

The Hon. COURTNEY HOUSSOS: You noted that residents had raised the issue of the tram bells. What other issues have residents raised with you?

Mr COXON: With respect to the Alstom scope, that is the only one I am aware of.

The Hon. COURTNEY HOUSSOS: They have not raised any other issues?

Mr COXON: That is right. That is my understanding.

The Hon. TREVOR KHAN: Was it raised with them, or was it raised with Transport for NSW or Acciona and then transmitted to you?

Mr COXON: I will take it on notice to know the exact communication process. My understanding is that it was raised with ALTRAC, and they referred it to us and then we resolved it with ALTRAC and Transport for NSW.

ANSWER:

This complaint followed the communication protocol established with the principal contractor (Acciona) as part of his contractual obligation. Acciona then raised the specific complaint with Alstom.

QUESTION 19:

The Hon. COURTNEY HOUSSOS: You said you have employees who come from overseas to do the testing component, but you have local subcontractors to do the installation work. When did you engage those subcontractors?

Mr COXON: We have been in discussions with those contractors since the beginning of the contract.

The Hon. COURTNEY HOUSSOS: When was that?

Mr COXON: The contract started in February 2015.

The Hon. COURTNEY HOUSSOS: You signed contracts with them?

Mr COXON: I would not say we signed contracts, but we were discussing already then with installation contractors.

The Hon. COURTNEY HOUSSOS: When did they begin their work?

Mr COXON: When installation started. I would have to take on notice the specific details of when the contractors started their work, the precise timing.

The Hon. COURTNEY HOUSSOS: I would be interested to know when they signed on, when they began their work and if there was any delay to the work they were doing.

Mr COXON: Okay.

ANSWER:

The majority of contracts were awarded and signed in 2017 with some in 2018. The contractors subsequently started activities from mid 2017 to mid 2018. We have not experienced any significant delay to the work they are doing.