

QUESTIONS ON NOTICE — 14 September 2015 — CANBERRA

	Witness	Question – Hansard text	Page number
1	NBN Co Ltd	<p>Senator Conroy asked: Mr Morrow: Well my advisers are telling me that there is no requirement whether it is a directive or not to publish that letter. But, again, I respect this committee and if you tell me otherwise— Senator CONROY: I asked you this time when you received it? Mr Morrow: Again, I do not recall the specifics of when it was received. We can check to see if there is any issue about telling you when that is and if there is not then I would be happy to inform you of that date. Senator CONROY: Do you think it was after they received the draft? That is what you said a moment ago. Mr Morrow: That is what I recall. After we submitted the initial draft then there was a letter that was sent to our board asking for this information</p>	51
2	NBN Co Ltd	<p>Senator McAllister asked: CHAIR: Just to wrap up the issues we were discussing before, sitting behind the corporate plan there is an operating plan, which lists the full financial assumptions out to 2022 plus a whole range of other issues including market analysis, network specification and a range of assessments about level of service. We have got a very detailed thousand-page document. There is also the integrated deployment plan, which covers the rollout targets for every quarter, and that is shortly for release. Mr Morrow: When construction starts is something that we have been publishing for some time. CHAIR: I am wondering if you would be willing to release the operating plan to the committee. Mr Morrow: The 1,000 pages you are asking for? CHAIR: Yes. Mr Morrow: We certainly will take that on notice and I am certain that we can produce some of that document. CHAIR: I think we would appreciate it. It is a obviously a committee that is interested in the detail of this process for a range of good public policy reasons.</p>	51

		Mr Morrow: Again, we are happy to. Of course we will hold back the commercial-in-confidence components but we are happy to produce those bits that are not.	
3	NBN Co Ltd	<p>Senator Conroy asked: How big are the current HFC trial footprints in Emu Plains in New South Wales, Redcliffe in Queensland, Slacks Creek in Queensland and Merrimac in Queensland? How many premises are in each of those? They are just the names that they are listed under.</p> <p>Mr Morrow: I am not aware. Are you asking about our trial areas—how many homes are part of the trial?</p> <p>Senator CONROY: Yes—HFC trial footprints. How many homes are in each of those footprints?</p> <p>Mr Morrow: Again, I think there are smaller numbers. The idea is that we are working, for example, with the Optus network on a set number of homes. It is mainly to be able to understand the processes and what our costs would be.</p> <p>Senator CONROY: Are you able to take it on notice?</p> <p>Mr Morrow: I can take it on notice.</p>	59
4	NBN Co Ltd	<p>Senator Conroy asked: You have barely started rolling out FTTN and HFC. What operational experience are you basing your current estimates on?</p> <p>Mr Morrow: There is a lot of hypothetical elements within that we try to gather from existing networks, personal management experience and overseas data that we have been able to attain and benchmark against. But, again, that is modelling at this point. It is a very fair point. We are only just now starting to maintain a portion of the copper network. We will gain a lot of experience between now and the time that we have to issue the next corporate plan.</p> <p>Senator CONROY: Mr Adcock was describing the remediation process to me. How many pair gains have you had to replace? How many taps and bridges have you replaced so far in your FTTN trials?</p> <p>Mr Morrow: We would have to take that on notice to give you a specific answer</p>	62
5	NBN Co Ltd	<p>Senator Conroy asked: How much more efficient is this? Do you get 20 per cent more capacity or 50 per cent?</p> <p>Mr Morrow: From a 3.0 to a 3.1?</p> <p>Senator CONROY: By shifting, as you said, all the Foxtel to one side.</p> <p>Mr Morrow: We would not be able to go in and actually offer good solid broadband without</p>	66

		<p>reallocating—</p> <p>Senator CONROY: I appreciate you must do that. What I am asking is what sort of efficiency? You said it is more efficient: what sort of efficiency do you get when you do that?</p> <p>Mr Morrow: I believe Dennis Steiger answered that question when he was at the committee last.</p> <p>Senator CONROY: That was the one time that you have allowed him to come, and you did tell him to shut up and stop answering questions.</p> <p>Mr Morrow: No, I think he did answer that question before I got to him. We will find out for you what the efficiency gain is.</p>	
6	NBN Co Ltd	<p>Senator CONROY: I just want to confirm that is what is going on inside the company. Mr Morrow, the corporate plan states on page 39:</p> <p>At the request of the Government, management has prepared a high level desktop analysis, not to the same level of detail as the Operating Plan, to update an assessment of an all-FTTP fixed line deployment scenario ...</p> <p>I think that is a straight quote. To confirm, the government explicitly requested this?</p> <p>Mr Morrow: That is correct.</p> <p>Senator CONROY: What form did that request take?</p> <p>Mr Morrow: A letter that was sent from the ministers.</p> <p>Senator CONROY: Is that on the website, I assume?</p> <p>Mr Morrow: I do not know.</p> <p>Senator CONROY: So a direction from the minister normally needs to be, under the GBE guidelines, put up on the website. It could be the minister's responsibility, it might not be yours. Are you aware if it is on the website?</p> <p>Mr Morrow: I am not aware.</p> <p>Senator CONROY: Could you table that letter?</p> <p>Mr Morrow: I believe that is an issue for the government, not for us. But we will be happy to look at that if it is something that should be—</p> <p>Senator CONROY: Was it a shareholder direction? This is a very specific legal question, and given that you said you know everything about the company you can answer every question about every.</p> <p>Senator CONROY: No, I appreciate it came on a piece of paper and it had print on it. But the definition of a 'shareholder direction' is very specific. It is a legal requirement—</p> <p>Mr Morrow: I do not know the legal specifics of the directional side of this. If you have a specific question we can certainly take it on notice if we cannot answer it.</p>	11-12

	<p>Senator CONROY: The way the parliamentary system works here is that if you give advice to the minister, that advice to the minister is not disclosable. If the minister gives you direction or advice, or gives you a letter, it is disclosable. Okay? It is a direction from the minister. You cannot hide it. I appreciate you are saying that he sent it, but you received it. Are you able to tell us what it said off the top of your head, or could you table it? It is not a question of the minister's responsibility; you have received it and apparently acted upon it, so we would like to know what it was that the minister told you to do.</p> <p>Mr Morrow: Can we just take this back to make sure that proper procedure is followed? If this is something that we can reveal we will be happy to. But if it is something that is about a government decision rather than NBN's, then we will leave that to the government.</p> <p>Senator CONROY: You obviously do not understand the laws under which you operate. The only thing you are required to comply with is a shareholder direction. He could write to you and tell you to fly to the moon and you do not have to fly to the moon because it is just a request. You make a decision yourself. You are not required to follow anything other than a shareholder direction, and any direction has to be tabled on the website. I do not think it is tabled on the website, so I am just working on the basis that it is not a legal requirement for you to follow a request. It is a decision you actually have to take yourself—so you cannot blame anybody else; you just have to say, 'No, I decided to do it,' not, 'Oh, well, he's the minister.' The only thing you are legally required to do is follow a direction that is listed on the website. The rest is your discretion, nobody else's.</p> <p>Mr Morrow: It sounds like we need to know more about the details behind that—</p> <p>Senator CONROY: I cannot believe it—you have told me you can answer every single question that this company could possibly be involved in.</p> <p>Mr Morrow: I am happy to take whatever questions you have on notice and make sure that you get the answers.</p>	<p>13</p>
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Senate Select Committee on the National Broadband Network

Answers to Questions on Notice

Public Hearing 14 September 2015

NBN Co Limited

Question No: 1

Hansard Ref: Page 51

Topic: Date of receipt of Shareholder Direction

Senator Conroy asked:

Mr Morrow: Well my advisers are telling me that there is no requirement whether it is a directive or not to publish that letter. But, again, I respect this committee and if you tell me otherwise—

Senator CONROY: I asked you this time when you received it?

Mr Morrow: Again, I do not recall the specifics of when it was received. We can check to see if there is any issue about telling you when that is and if there is not then I would be happy to inform you of that date.

Senator CONROY: Do you think it was after they received the draft? That is what you said a moment ago.

Mr Morrow: That is what I recall. After we submitted the initial draft then there was a letter that was sent to our board asking for this information

Answer:

The letter from Shareholder Ministers to the Chairman of **nbn** regarding the costing request was dated 28 April 2015 and was received by the company on Wednesday 29 April 2015.

The letter followed the earlier provision and discussion with Government of a draft Operating Plan (OP). A final draft 2016 Corporate Plan was submitted to Shareholder Ministers in June 2015.

Senate Select Committee on the National Broadband Network

Answers to Questions on Notice

Public Hearing 14 September 2015

NBN Co Limited

Question No: 2

Hansard Ref: Page 5

Topic: Release of the Operating Plan

Senator McAllister asked:

CHAIR: Just to wrap up the issues we were discussing before, sitting behind the corporate plan there is an operating plan, which lists the full financial assumptions out to 2022 plus a whole range of other issues including market analysis, network specification and a range of assessments about level of service. We have got a very detailed thousand-page document. There is also the integrated deployment plan, which covers the rollout targets for every quarter, and that is shortly for release.

Mr Morrow: When construction starts is something that we have been publishing for some time.

CHAIR: I am wondering if you would be willing to release the operating plan to the committee.

Mr Morrow: The 1,000 pages you are asking for?

CHAIR: Yes.

Mr Morrow: We certainly will take that on notice and I am certain that we can produce some of that document.

CHAIR: I think we would appreciate it. It is obviously a committee that is interested in the detail of this process for a range of good public policy reasons.

Mr Morrow: Again, we are happy to. Of course we will hold back the commercial-in-confidence components but we are happy to produce those bits that are not.

Answer:

The request for the Operating Plan to be released was also contained in the Senate Motion of 17 September 2015.

In the response from Shareholder Ministers to the Motion, they agreed with **nbn** that the Operating Plan document contains commercially sensitive material which, if released, would cause harm to **nbn** and the Commonwealth and could ultimately negatively impact Australian taxpayers.

As previously advised, however, **nbn** is continuing to examine the possible release of aspects of the Operating Plan that would not be deemed 'commercially sensitive'. The company will advise the Committee as soon as practicable noting the large volume of material that has to be examined against its contractual commitments.

Senate Select Committee on the National Broadband Network

Answers to Questions on Notice

Public Hearing 14 September 2015

NBN Co Limited

Question No: 3

Hansard Ref: Page 59

Topic: HFC trial footprints

Senator Conroy asked:

How big are the current HFC trial footprints in Emu Plains in New South Wales, Redcliffe in Queensland, Slacks Creek in Queensland and Merrimac in Queensland? How many premises are in each of those? They are just the names that they are listed under.

Mr Morrow: I am not aware. Are you asking about our trial areas—how many homes are part of the trial?

Senator CONROY: Yes—HFC trial footprints. How many homes are in each of those footprints?

Mr Morrow: Again, I think there are smaller numbers. The idea is that we are working, for example, with the Optus network on a set number of homes. It is mainly to be able to understand the processes and what our costs would be.

Senator CONROY: Are you able to take it on notice?

Mr Morrow: I can take it on notice.

Answer:

EMU Plains: 790 individual addresses are targeted for lead-in trials on the Optus network.

Redcliffe: 2,792 individual addresses are targeted for lead-in trials on the Optus network. **nbn** is also targeting to cable 792 Multi Dwelling Units (comprising 7,094 individual addresses). In total 9,886 individual addresses are targeted for trials.

Slacks Creek: has been deferred.

Merrimac: 500 individual addresses were targeted for lead-in trials on the Telstra network.

Senate Select Committee on the National Broadband Network

Answers to Questions on Notice

Public Hearing 14 September 2015

NBN Co Limited

Question No: 4

Hansard Ref: Page 62

Topic: Pair Gains

Senator Conroy asked:

You have barely started rolling out FTTN and HFC. What operational experience are you basing your current estimates on?

Mr Morrow: There is a lot of hypothetical elements within that we try to gather from existing networks, personal management experience and overseas data that we have been able to attain and benchmark against. But, again, that is modelling at this point. It is a very fair point. We are only just now starting to maintain a portion of the copper network. We will gain a lot of experience between now and the time that we have to issue the next corporate plan.

Senator CONROY: Mr Adcock was describing the remediation process to me. How many pair gains have you had to replace? How many taps and bridges have you replaced so far in your FTTN trials?

Mr Morrow: We would have to take that on notice to give you a specific answer

Answer:

No Loading Coils have been found within the Joint Development Works Contract (JDWC), Fibre to the Node (FTTN) Trial areas.

154 Small Pair Gain Systems have so far been removed from these Trial areas.

Senate Select Committee on the National Broadband Network

Answers to Questions on Notice

Public Hearing 14 September 2015

NBN Co Limited

Question No: 5

Hansard Ref: Page 66

Topic: Efficiency Gain

Senator Conroy asked:

How much more efficient is this? Do you get 20 per cent more capacity or 50 per cent?

Mr Morrow: From a 3.0 to a 3.1?

Senator CONROY: By shifting, as you said, all the Foxtel to one side.

Mr Morrow: We would not be able to go in and actually offer good solid broadband without reallocating—

Senator CONROY: I appreciate you must do that. What I am asking is what sort of efficiency? You said it is more efficient: what sort of efficiency do you get when you do that?

Mr Morrow: I believe Dennis Steiger answered that question when he was at the committee last.

Senator CONROY: That was the one time that you have allowed him to come, and you did tell him to shut up and stop answering questions.

Mr Morrow: No, I think he did answer that question before I got to him. We will find out for you what the efficiency gain is.

Answer:

The efficiency gain extracted from the HFC plant in moving from DOCSIS 3.0 to DOCSIS 3.1 is highly dependent on the noise performance characteristics of the plant it is operating over. DOCSIS 3.1 offers superior spectral efficiency over DOCSIS 3.0 by allowing the utilisation of areas of the spectrum previously unusable due to high noise levels, while improving and maximising the amount of bandwidth extractable from the available finite spectrum.

By applying DOCSIS 3.1 channel and bandwidth optimisation techniques, we estimate an approximate spectral efficiency gain of 25% in the Downstream (forward path) direction, and 59% efficiency gains in the Upstream (return path); relative to DOCSIS 3.0.

The comparative aggregate bandwidth available in the Upstream and Downstream directions; is shown in the table below:

D3.0 versus D3.1 Bandwidth comparison based on 2dB network operating margin.	Aggregate HFC Segment Bandwidth capacity*		
	DOCSIS 3.0	DOCSIS 3.1	% increase
Downstream (Forward Path)	1626Mbps	2,032Mbps	25%
Upstream (Return path)	186Mbps	296Mbps	59%

* nbn has conducted theoretical calculations using samples of noise performance data extracted from samples of the operational HFC network.