

A3 Short form responses

Short form responses to the Information Request from the Commission dated 18 November 2020. Includes interpretation, assumptions and explanation of responses, and any other short form responses.

Note – in our responses we use the following terms interchangeably:

- RP1 and PQP1 (meaning the first regulatory period from 1 January 2022 for three years)
- Calendar year, CY and regulatory year, RY.

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IR ref	Introduction and interpretations
A1-A3	No responses required

IR ref	Summary information
A4	A4 Where Chorus provides any financial information other than in regulatory templates , it must identify whether this information is provided in nominal terms or constant-price terms.
A5	A5 Provide a summary document that: <ul style="list-style-type: none"> A5.1 lists the name of each file provided in response to the requirements set out in this notice and a brief description of the information each file contains; A5.2 shows where the Commission can find the information provided by Chorus in response to each requirement set out in this notice; A5.3 includes a glossary of key terms used by Chorus in its response to this notice where the terms are not defined in this notice or the IM determination.
A6	A6 Provide a summary of the parts of Chorus's company structure that are involved in the delivery of PQ FFLAS , including: <ul style="list-style-type: none"> A6.1 a current company structure map, including: <ul style="list-style-type: none"> A6.1.1 Chorus and all of its related companies and subsidiaries; A6.1.2 a high-level description of the main functions of each company and subsidiary and their relationship with Chorus, A6.1.3 any proposed material changes planned to be made to Chorus's company structure for or in PQP1; A6.2 a current organisation chart, including: <ul style="list-style-type: none"> A6.2.1 a description of each operating unit; A6.2.2 the relationships between the operating units; and A6.2.3 staff numbers for each operating unit; A6.3 any already-confirmed material changes planned to be made to Chorus's company structure for or in PQP1 that can be expected to alter opex or capex for PQP1.
	Interpretation/Assumptions/ Explanation -
	Our response to A6 relates to both company structure (for A6.1 and A6.3) and organisational structure (for A6.2).
	Response/ Reference -
	For A4 – All financial information within the proposal (excluding regulatory templates) is stated in 2020 constant prices unless specifically noted to the contrary. For A5.1 please refer to the 'Document List', which lists the names of the files provided in response to the information notice (and the broader proposal) and provides brief descriptions of the information contained in each file.

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		<p>For A5.2 we attach an index (attachment 'A2. Index for information request'), which shows where the Commission can find each requirement set out in the information notice.</p> <p>For A5.3 – please refer to the 'Glossary' provided.</p> <p>A6 – please refer to the response attachment 'B1.1 A6 – company structure and organisational information' for all parts of this question. We also note that in relation to A6.2.1, our investment report opex chapters provide some description of operating units.</p>
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IR ref	Overall expenditure information	
A7-9	<p>A7 <i>Provide a list of and high-level description of each of Chorus's key approaches to the demarcation between proposed base capex, proposed connection capex, and proposed opex.</i></p> <p>A8 <i>Provide a summary of the key drivers for Chorus's proposed base capex, proposed connection capex and proposed opex, which must, to the extent relevant, include an overview where availability, performance, or other quality dimensions are a key driver for the proposed base capex, proposed connection capex and proposed opex.</i></p> <p>A9 <i>Provide an explanation of any linkages and trade-offs between each of the following, with reference to relevant expenditure sub-categories and connection types, that Chorus considered when preparing its expenditure forecasts:</i></p> <p style="padding-left: 40px;">A9.1.1 <i>proposed base capex;</i></p> <p style="padding-left: 40px;">A9.1.2 <i>proposed connection capex; and</i></p> <p style="padding-left: 40px;">A9.1.3 <i>proposed opex.</i></p>	
	Interpretation/Assumptions/ Explanation -	<p>For A7 we consider there are 2 parts to this request – 1. the demarcation between capex and opex, which is as per accounting treatment; and 2. the demarcation between base capex and connection capex. A7 requests a <i>list</i> and high-level description of the key approaches to demarcation. We interpret the 'list' to mean a list of approaches to demarcation of expenditure. As the demarcation does not involve numerous approaches we have listed and explained them in the same narrative.</p> <p>A8 asks us to provide a summary of key drivers of expenditure and to the extent relevant an overview of where quality dimensions are a key driver of expenditure. We consider this requires a summary of expenditure drivers in RP1, and reference to quality dimensions at an overview level, where relevant. We consider 'drivers' to mean the reasons for expenditure, why it is needed and planned (e.g. demand for connections).</p>

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		<p>A9 requests explanation of linkages and trade-offs between base capex, connection capex and opex with reference to relevant expenditure sub-categories and connections types. We have interpreted this to mean our response is required if there are linkages (wording used is ‘any’) and only where relevant at the sub-categories and connection type level. So, our response provides an overview of key points of relevance to linkages and trade-offs, with more detail available if relevant within each section of the investment report (at a sub-category level) and ‘IFP Connection Capex’ proposal report.</p>
	Response/ Reference -	<p>Response to A7 is in the attached document ‘B3.1 A7 - demarcation of base capex, connection capex and opex’.</p> <p>Response to A8 is provided at a summary level in the ‘IFP Overview’ document. And in the ‘IFP Investment Summary’ (‘Overview’ section under heading ‘trends, drivers and strategy’). The ‘IFP Quality Report’ also responds to the second part (quality dimensions as key drivers). We provide the attached table ‘B2.2 A8, A18, A20, A33, A34.1, A38 - drivers, outcomes, outputs and benefits – capex and opex’, which provides more detail on drivers of expenditure in expenditure categories and sub-categories.</p> <p>Response to A9, is provided in the ‘IFP Investment Summary’, in the ‘Overview’ section under the heading ‘linkages, synergies and trade-offs’ and in each expenditure sub-category section in the ‘IFP Investment Summary’ under the heading ‘linkages, synergies and trade-offs’. More detail on linkages is provided in the Investment report chapters for each expenditure sub-category for capex and opex, and ‘IFP Connection Capex’ proposal report (for connection capex links to installations and other expenditure within connection capex).</p>

IR ref	Overall expenditure information – key legislative obligations	
A10	A10	<i>Provide a description of the key legislative obligations owed by Chorus that are drivers of proposed base capex, proposed connection capex and proposed opex.</i>
	Interpretation/Assumptions/ Explanation -	We consider that this response requires us to focus on key legislative obligations not all legal obligations. And does not include obligations in contract or common law. We also consider that this request is asking for legislative obligations that are drivers of expenditure (base capex, connection capex and opex) not all legislative obligations.
	Response/ Reference -	We provide a response to key legislative obligations that are drivers of expenditure in attachment ‘B1.2 A10 - key legislative obligations’.

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IR ref	Consultation	
A11	A11	<i>A description of the extent and effectiveness of any consultation with access seekers and end-users on proposed base capex, proposed connection capex, and proposed opex including how this consultation has been incorporated into the proposals and what impact it has had on the proposals</i>
	Interpretation/Assumptions/Explanation -	Our interpretation of this response is that it requires us to describe our consultation on proposed base capex, connection capex and opex. Our response assumes we may respond in relation to consultation on all proposed FFLAS expenditure, and break this down to specific points on proposed base capex, connection capex and opex if relevant.
	Response/ Reference -	<p>Our response to A11 is provided in the 'IFP Engagement report'. There is also explanation in the 'IFP Investment Summary' ('Overview' section under heading 'Consultation'), as a summary of engagement.</p> <p>Our 'IFP Engagement' report explains the extent and effectiveness of consultation with access seekers (in the sections under headings 'Most engagement activities are ongoing' and 'We added new engagement for RP1'). This report also explains how we incorporated consultation outcomes into our proposal and the impact that had on our proposal (under heading 'Consultation informed our proposal').</p>

IR ref	Deliverability and procurement	
A12- A14	A12	<i>Summarise the assumptions made regarding the deliverability of the level of proposed base capex, proposed connection capex, and proposed opex and an explanation of factors that are likely to affect the deliverability of the level of expenditure.</i>
	A13	<p><i>Provide a description of:</i></p> <p><i>A13.1 plans for resourcing and delivering the level of proposed base capex, proposed connection capex, and proposed opex;</i></p> <p><i>A13.2 the key risks associated with procuring, resourcing and delivering the levels of proposed base capex, proposed connection capex, and proposed opex and an explanation of each risk's potential to affect:</i></p> <p><i>A13.2.1 the deliverability of the levels of proposed base capex, proposed connection capex, and proposed opex, whichever is applicable;</i></p> <p><i>A13.2.2 the expected impact on high-level PQ FFLAS quality outcomes, for example, across quality dimensions such as provisioning, availability and performance.</i></p>
	A14	<i>Provide a description of the procurement processes that Chorus will use to help deliver proposed expenditure (with specific reference to proposed base capex, connection capex and proposed opex where relevant), including:</i>

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	<p>A14.1 <i>approach to delivering works (for example, insourced or outsourced);</i></p> <p>A14.2 <i>the processes used to select, evaluate, and award outsourced work;</i></p> <p>A14.3 <i>details of the key service level agreements in service company contracts that impact on PQ FFLAS quality outcomes, for example, across quality dimensions such as provisioning, customer service and faults; and</i></p> <p>A14.4 <i>key risks associated with procurement and existing supplier contractual arrangements that have the potential to affect the delivery of Chorus' proposed expenditure with specific reference to proposed base capex, proposed connection capex and proposed opex where relevant)</i></p>
Interpretation/Assumptions/ Explanation -	<p>We have interpreted these requests as applying at an aggregate level of expenditure (across all capex (base and connections) and opex). So, our primary response to these questions is that they are addressed at that level across expenditure in the 'IFP Delivery' report.</p>
Response/ Reference -	<p>Our primary responses to A12, A13 and A14 are all provided in the 'IFP Delivery' report. Specific resourcing, delivery and procurement details for expenditure categories may also be provided in relevant investment report chapters.</p> <p>A12 is responded to in the 'IFP Delivery' report by discussing our major work types being: In-field network, site services, network capacity and IT. The overarching theme is that we are shifting from a build to operate model and we outline the assumptions regarding deliverability and factors affecting as we work through that transition process.</p> <p>For A13.1 we have a section in the 'IFP Delivery' report entitled 'How we deliver' which outlines the plans for resourcing and delivering by describing key activities and resourcing in each of the four major work types mentioned above. We also have a section called 'Managing delivery' for each of the four major work types.</p> <p>A13.2 is responded to with tables in the 'IFP Delivery' report covering risks to delivery for each of our four major work types. In addition, specific delivery risks, and links to quality are addressed where relevant to some categories of expenditure, in the 'IFP Investment' report (end of each section) and in the 'IFP Quality' report.</p> <p>A14.1 and A14.2 is addressed in the 'IFP Delivery' report, with the introduction describing the major work types, and the 'Managing delivery' and 'Procurement' sections outlining our process to identify, evaluate and award outsourced work.</p> <p>For A14.3 - We attach a document 'C6. Service level agreement extracts from service company contracts' with</p>

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		<p>the details of key service level agreement (SLA) provisions in service company contracts that may impact quality outcomes across the quality dimensions.</p> <p>This attachment includes SLA extracts relating to the four key work types for the following contracts:</p> <ul style="list-style-type: none"> A. Building and Engineering services – Downer New Zealand Limited, October 2020 B. Provision of Property Maintenance Services – Ventia NZ Operations Limited, October 2020 C. Field Services Agreement (inclusive of UFB Connect) – The clauses are representative of the FSA KPIs we have in place with Downer and Ventia and the UFB Connect KPI's that are in place with Ventia and UCG. D. UFB2 Build – Broadspectrum (New Zealand Limited), February 2017 <p>Our approach to delivery with service company contracts is described in the 'IFP Delivery' report.</p> <p>For A14.4 the 'IFP Delivery' report explains key risks associated with procurement and existing supplier contractual arrangements are set out in tables in the sections of the report for each of our four major work types.</p>
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IR ref	Links between expenditure proposals and financial strategies	
A15	<p>A15 <i>Provide the following information, to the extent relevant to PQ FFLAS scope:</i></p> <p>A15.1 <i>a summary of Chorus's strategies for dividends and debt management applicable to PQP1;</i></p> <p>A15.2 <i>an explanation of how Chorus's strategies for dividends and debt management are consistent with the equivalent information available to Chorus's external stakeholders immediately prior to Chorus submitting its base capex proposal, connections capex baseline proposal and opex proposal;</i></p> <p>A15.3 <i>an explanation of how Chorus's strategy for dividends and debt management are consistent with proposed base capex, proposed connection capex, and proposed opex; and</i></p> <p>A15.4 <i>if Chorus makes assumptions in its responses to A15.1-A15.3 above that differ from its standard corporate modelling, describe those assumptions</i></p>	
	Interpretation/Assumptions/Explanation -	No comments.
	Response/ Reference -	Please refer to our attached response, 'B1.3 A15 - dividend and debt management.

IR ref	Base capex and connection capex – general information
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A16	<p>A16 Chorus must provide the following information:</p> <p>A16.1 an explanation of how Chorus's overall business strategy and asset management strategy is reflected in its proposed base capex and connection capex for PQP1;</p> <p>A16.2 an explanation of key trends between levels of historical capex and proposed base capex and proposed connection capex, including:</p> <p>A16.2.1 any key cost allocation assumptions Chorus made to allocate expenditure to PQ FFLAS (for proposed capex) that influenced those trends;</p> <p>A16.2.2 if Chorus provides historical allocated information, any key cost allocation assumptions Chorus made to allocate expenditure to UFB FFLAS (for proposed capex) that influenced those trends;</p> <p>A16.2.3 where relevant to the explanation, Chorus may provide unallocated historical base capex and connection capex and unallocated proposed base capex and proposed connection capex;</p> <p>A16.2.4 where relevant to the explanation, Chorus may provide historical base capex and connection capex allocated to UFB FFLAS;</p> <p>A16.3 a description of the approval process Chorus used for adopting the proposed base capex and connection capex;</p> <p>A16.4 evidence demonstrating if, and how Chorus has, in relation to proposed base capex and proposed connection capex:</p> <p>A16.4.1 pursued, and is pursuing, process improvements that led or will lead to cost efficiencies and reduce capex;</p> <p>A16.4.2 ensured and is seeking to ensure appropriate least whole-of-life cost and efficiency improvements;</p> <p>A16.4.3 pursued and is pursuing cost reduction strategies for its projects and programmes; and</p> <p>A16.4.4 ensured and is seeking to ensure that both internal and external suppliers of goods and services have incentives to perform well and to identify cost savings.</p> <p>A16.5 A description of any non-linear connection costs for proposed base capex, including the value of such costs and why they have not been included in the connection capex proposal.</p> <p>A16.6 summarise any efficiency assumptions that Chorus has applied in its proposed base capex and proposed connection capex.</p>
Interpretation/Assumptions/Explanation -	<p>We interpret A16.1 to involve provision of an explanation at a high level as it refers to 'overall', and that there are two aspects to this – business strategy and asset management strategy.</p> <p>For A16.2, our assumptions are that:</p> <ul style="list-style-type: none"> • where we allocate expenditure for PQ FFLAS (for proposed capex) we include key cost allocation

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		<p>assumptions that influenced the trends between historic and proposed base and connection capex (A16.2.1)</p> <ul style="list-style-type: none"> • it is discretionary for Chorus to provide historical (CY2016-19) allocated information (under A16.2.2) • we may provide unallocated historical and proposed base capex and connection capex (under A16.2.3) • it is discretionary for Chorus to provide historical base capex and connection capex allocated to UFB FFLAS as this is referred to as 'where relevant' (in A16.2.4). And if we do, only then would we state key cost allocation assumptions made to allocate expenditure to UFB FFLAS (in the context of key trends between historic, and proposed base and connection capex (A16.2.2)). <p>We also note that we read A16.2.3 in light of A16.2, which requires historical capex and proposed base capex and connection capex trends comparison. Therefore, we think in this context, and because it is discretionary, A16.2.3 can be read as referring to unallocated historical <i>total</i> capex.</p> <p>For A16. 5 we understand this question relates to non-linear connection costs <i>in</i> base capex, not in connection capex. There is another question related to non-linear connection costs in connection capex - A22.5.</p>
	<p>Response/ Reference -</p>	<p>Our response A16.1 is provided in:</p> <ul style="list-style-type: none"> • 'IFP Overview' – which explains business strategy and asset management approach in terms of our proposal at an overview level • 'IFP Governance' – which explains asset management approach overall in the 'asset management' section • 'IFP Investment Summary' – which explains business and asset management strategy in the 'overview' section under heading – 'trends, drivers and strategy' • 'Introduction' to the 'Investment report' – which provides explanation on our asset management approach and improvement plans in the 'How we manage our assets' section. <p>For A16.2 in the 'IFP Overview' and 'IFP Investment Summary' we provide an explanation of key trends between levels of historical capex and proposed base capex and connection capex. The explanation includes:</p> <ul style="list-style-type: none"> • unallocated historical capex for CY2016 to 2019, inclusive • allocated capex for CY2020 to 2021

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		<ul style="list-style-type: none"> • allocated base capex and connection capex for CY2022 to 2024 • allocated capex for CY 2025 and 2026. <p>We are not providing historical capex and connection capex allocated to UFB FFLAS as we understand this is discretionary (as noted above for A16.2.4).</p> <p>And we explain key cost allocation assumptions made to allocate capex to PQ FFLAS, that influenced these trends in our ‘Modelling and Cost Allocation Report’, Appendix A under the heading ‘cost allocation methodology applied.’</p> <p>For A16.3 we provide description in our ‘IFP Governance’ report, (last section), of the approval process used in adopting the proposed base capex and connection capex.</p> <p>For A16.4 (all parts) and A16.6 (regarding efficiencies) we provide an explanation in the ‘IFP Investment Summary’ – ‘overview’ section and we have an additional response for this at an expenditure category level in attachment ‘B2.3 A16.4 (all), A16.6, A32.4(all), A32.5 – efficiencies’.</p> <p>For A16.5 our response is that there are no non-linear connection costs in base capex. Non-linear connection costs are only relevant to connection capex in our view. For example, optics related to Hyperfibre installations. We also refer you to our related answer to A22.5 in the attachment ‘B4.1 A22 - connection capex information’.</p>
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IR ref	Base capex sub-categories - general	
A17- A19	A17	<p><i>Provide an overview of:</i></p> <p>A17.1 <i>the forecasting approach Chorus used for each base capex sub-category, which may include “bottom up”, “base-step-trend”, “benchmarking analysis” and any quantitative or economic analysis used in the approach;</i></p> <p>A17.2 <i>why Chorus considers the forecasting approach used for each base capex sub-category is appropriate;</i></p> <p>A17.3 <i>the key assumptions of the forecasting approach Chorus used for each base capex sub-category and how Chorus applied the key assumptions;</i></p> <p>A17.4 <i>the extent of any uncertainty in the forecasts for each base capex sub-category related to:</i></p> <p>A17.4.1 <i>the need for the proposed base capex;</i></p> <p>A17.4.2 <i>the economic case justifying the proposed base capex;</i></p> <p>A17.4.3 <i>the timing of the proposed base capex; and</i></p>

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	<p>A17.5 the principal models Chorus used for each base capex sub-category and how Chorus relied on each of them when forecasting each base capex sub-category.</p> <p>A18 Provide, for each base capex sub-category, the outputs, outcomes, and benefits and an explanation of the connections between the outputs, outcomes, and benefits.</p> <p>A19 Provide a list of and description of Chorus's existing key policies that materially influence the proposed base capex in each base capex sub-category, such as:</p> <p>A19.1 asset management, including ensuring the least whole of life costs for assets;</p> <p>A19.2 business planning;</p> <p>A19.3 insurance (including self-insurance); and</p> <p>A19.4 procurement related to the proposed base capex</p>
<p>Interpretation/Assumptions/ Explanation -</p>	<p>For A17.4 regarding uncertainties in forecasts, we assume our response for each base capex sub-category depends on 'the extent of any uncertainty'... 'related to' that sub-category. So, if there is little or no uncertainty for a sub-category we do not comment. For A17.4.2 we interpret economic case to relate to the business case for the proposed capex.</p> <p>With A18 we interpret 'outputs, outcomes, and benefits and the connections' between them to be the same concepts covered when discussing our plans for expenditure.</p> <p>We understand 'output' to be the products of a programme or project of work. For example, a new or upgraded IT help desk system.</p> <p>We understand the 'outcome' is the result of the change derived from the output. Using the IT system example, this could be that the support people can answer more requests. And our interpretation of 'benefits' is the measurable improvements resulting from an outcome. For example, escalation of cases drops from x% to y%.</p> <p>A19 is a request for key policies that materially influence base capex. We understand this relates to the examples listed and any other policies that influence capex at a material level.</p>
<p>Response/ Reference -</p>	<p>For A17.1 – A17.4 we respond in the 'forecast expenditure' sections for each chapter of the investment report. And attachment 'B2.1 A17, A36 – forecasting approaches, key assumptions and uncertainties – capex and opex' provides a table of forecasting approaches, key assumptions and uncertainties for base capex sub-categories (to collate information that is across capex chapters of the investment report). This table sets out the forecasting approach for each priority sub-category, why it is appropriate (A17.1 and</p>

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		<p>A17.2); key assumptions and how they are applied (A17.4). Our ‘Modelling and Cost Allocation Report’, (under the heading ‘business forecasting approach’) explains how the extent of uncertainties and assumptions is addressed in modelling.</p> <p>For 17.5 we respond in Appendix B to the ‘Modelling and Cost Allocation Report’. Explanation of how we have relied on the models to develop our regulatory forecast is provided in the ‘Modelling and Cost Allocation Report’, under ‘Financial forecast development’ heading.</p> <p>For A18 we explain ‘outputs, outcomes, and benefits and the connections’ between them in our ‘our plans’ section in the investment report for each category of expenditure. We also provide a table (in attachment ‘B2.2 A8, A18, A20, A33, A34.1, A38 - drivers, outcomes, outputs and benefits’) with cases of ‘outputs, outcomes, benefits and the connections’ for each base capex sub-category.</p> <p>For A19 see attached response ‘B1.4 A19 and A39 – policies’, where we have also included descriptions of policies for property, health and safety, and technology as we consider these policies will materially influence capex. We also attach our Asset management policy and Procurement policy (‘C2. Asset Management Policy’ and ‘C3. Procurement Policy’) as these are referred to as specific examples in this request.</p>
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IR ref	Priority base capex sub-categories	
A20- A21	<p>A20 Provide a summary of each priority base capex sub-category, including its drivers, outputs, outcomes, and benefits, where:</p> <p>A20.1 Chorus must provide a description of the targeted impact on key outcomes; and</p> <p>A20.2 this summary must describe key outcomes Chorus is targeting in relation to customer service, performance or other quality dimensions with the proposed priority base capex sub-category.</p> <p>A21 Provide a description of the approval process (including governance arrangements) Chorus used in developing the proposed priority base capex sub-categories</p>	
	<p>Interpretation/Assumptions/ Explanation -</p>	<p>As for A18 above, we interpret the words in A20, ‘outputs, outcomes, and benefits’ and ‘targeted impacts on key outcomes’ to be the same concepts covered discussing our plans for expenditure. We consider ‘drivers’ to mean the reasons for expenditure, why it is needed and planned. A driver in our view could be a resource, process or condition that is required for the success and growth of a business.</p>

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		<p>We understand ‘output’ to be the products of a programme or project of work. For example, a new or upgraded IT help desk system.</p> <p>We understand the ‘outcome’ is the result of the change derived from the output. Using the IT system example, this could be that the support people can answer more requests. We understand ‘benefits’ to be measurable improvements resulting from an outcome. For example, escalation of cases drops from x% to y%.</p> <p>For A21 – We have assumed the reference to ‘proposed priority base capex sub-categories’ refers to the approval process used in developing the proposed priority sub-category expenditure. However, it may be that the question is also asking about the approval process for developing the definition of the priority base capex sub-category (i.e. scope). So, we also respond to this aspect below too.</p>
	<p>Response/ Reference -</p>	<p>For A20.1 – the Investment report chapters for each of the priority base capex sub-categories provide a summary in the ‘our plans’ section of drivers, outputs, outcomes and benefits including targeted impact on key outcomes. The ‘drivers’ of spend is explained for each priority sub-category in the relevant investment report chapter generally. In addition, attachment ‘B2.2 A8, A18, A20, A33, A34.1, A38 - drivers, outcomes, outputs and benefits – capex and opex’, to our response provides a table drawing out specific cases of the drivers, outputs, outcomes and benefits at a base capex sub-category level.</p> <p>For A20.2 – responses are in sections ‘Links to quality’ at the end of each Investment report capex chapter (addressing priority sub-categories), the ‘IFP Investment Summary’ in ‘linkages, synergies and trade-offs’ sections for expenditure categories, and the ‘IFP Quality’ report, ‘Links to expenditure’ sections for quality dimensions covered.</p> <p>For A21 – the ‘IFP Governance’ report - Corporate governance section discusses the approval process for expenditure through the business planning process, which includes priority base capex sub-categories. There is also a section at the end of the report which discusses how our proposal governance process extended beyond adoption of the FY2021-25 business plan forecast to include additional activities.</p>

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		And the process to approve the scope and definition of priority base sub-categories has been guided by the way our business plans and forecasts expenditure. The scope and definition of categories and sub-categories of expenditure was approved through our proposal team in consultation with business owners and finance teams.
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IR ref	Specific information requirements for connection capex	
A22	A22	<p>Provide the following information:</p> <p>A22.1 a description of why each proposed connection type is an appropriate grouping of connection subtypes;</p> <p>A22.2 A description of the assets, costs and any connection sub-types that make up each proposed connection type;</p> <p>A22.3 An explanation of the approach to cost estimation for the unit cost applied to forecast expenditure for each connection type; this explanation must discuss the extent to which unit costs are based on historical expenditure and historical volumes or any other basis (such as rates agreed with Chorus' external suppliers of goods and services or comparative benchmarks);</p> <p>A22.4 A description of the methodology used to forecast the connection volumes for each proposed connection type and forecast unit costs, including any existing quantitative or economic analysis used in the approach;</p> <p>A22.5 For any non-linear connection costs proposed to be included in each proposed connection type, provide the following information:</p> <p>A22.5.1 An explanation of the proposed non-linear connection cost function for each non-linear connection cost; and</p> <p>A22.5.2 An explanation of how Chorus has ensured that the non-linear connection costs are not also included in the proposed base capex;</p> <p>A22.6 Proposed connection capex and proposed connection capex volumes for each proposed connection type that relate to PQ FFLAS pre-installations (unconnected with a PQ FFLAS order) and any related capital contributions; and</p> <p>A22.7 Chorus's approach to capital contributions for each proposed connection type, and a summary of key assumptions used in relation to capital contributions for each proposed connection type.</p>
	Interpretation/Assumptions/Explanation -	<p>A22.2 requests description by each connection type (group) of the assets, costs and connection subtypes that fall within the connection type. Our assumption is that this request is for a high-level description of asset types and costs and any connection sub-types.</p> <p>We have interpreted the A22.6 reference to PQ FFLAS pre-installations to include connection types that involve work before an installation can occur. We consider network extension, e.g. multiple dwelling units in cost groups 3 to 6 to be included in 'pre installations' as these are works done</p>

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		before an installation can occur. We have not included any connection types involved in ordering as A22.6 excludes these, with the words ‘unconnected with a PQ FFLAS order’.
	Response/ Reference -	<p>A22 responses are provided in the attachment ‘B4.1 A22 - connection capex information’.</p> <p>We note that for A22 there is also related explanation in the ‘IFP Connection capex’ proposal report and in the Investment report ‘Installations’ chapter.</p>

IR ref	Specific information requirements for connection capex - retention	
A23	<p>A23 For any proposed connection capex and proposed base capex that relates to the retention of end-users or access seekers, provide:</p> <p>A23.1 a description of the forecast approach used to determine the proposed retention capex amount;</p> <p>A23.2 a description of the justification for the proposed forecast amount; and</p> <p>A23.3 any relevant policies and plans used in developing the proposed forecast amount</p>	
	Interpretation/Assumptions/ Explanation -	<p>A23 relates to proposed connection and base capex for retention of end users or access seekers. Our interpretation of ‘retention’ in this context includes expenditure to incentivise customers, including via influencing RSPs. We consider ‘retention’ to be a broad concept that covers the following:</p> <ul style="list-style-type: none"> • encouraging migration to fibre as part of our copper to fibre strategy • encouraging offnet households to connect to our network • optimising consumer experience by moving customers up the portfolio of fibre plans, and • retaining customers on our network, given the availability of alternative services. <p>Our understanding is that our managed migrations programme would come within this interpretation of retention as it is a programme to encourage migration to fibre and retain customers with Chorus.</p> <p>We interpret retention in this context to not include expenditure for provisioning customers (e.g. call centres, ordering systems and truck rolls) – which is capitalised.</p> <p>We have also excluded marketing costs as these are opex, so also not covered within the scope of this question regarding base and connection capex. And marketing is typically generalised in terms of purpose.</p>

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		<p>In A23.3 there is a request for policies and plans used in developing the proposed forecast amount. We interpret plans to be high level plans, e.g. business and strategic plans to retain customers.</p>
	<p>Response/ Reference -</p>	<p>Our response to A23.1 and A23.2 is provided in our Investment Report, ‘Installations’ chapter, section on ‘attracting customers’. This section explains the forecast approach and justification for the forecast amount of customer incentives aimed at increasing and retaining end users or access seekers. Note that where the expenditure relates to new connections to the network, this is captured in connections capex. The balance (i.e. incentives for retention of customers) forms part of base capex.</p> <p>Our managed migrations programme is forecast as opex as it is either internal labour or contracts with door knocking companies. Where managed migrations activity results in a customer order, some of the internal labour and door knocking costs are capitalised as the activity supports the fibre installations assets. The portion that is not capitalised remains opex and is part of the forecast of the Customer Opex, Customer Operations sub-category. The justification for the managed migrations programme is explained in ‘Installations’ chapter for capex (‘Installation delivery’ and ‘Our plans’ sections) and ‘Customer Opex’ chapter, Customer Operations sub-category for opex. The forecast approach for managed migrations is explained in the ‘Customer Opex’ chapter, ‘forecast expenditure’ section – where the forecast for labour is explained.</p> <p>We note that this request regarding forecasting approach is related to request A49.1.1 and A49.1.2. which asks for the expenditure concerned (for increasing or retaining end users) to be provided.</p> <p>A23.3 requests <i>relevant policies and plans</i> for developing customer incentives capex aimed at retaining customers. This expenditure is not managed through policies. The forecast approach is developed in our annual business planning process (5YP) and approved through the 5YP. We have described the forecast approach for this type of expenditure in response to A23.1 and A23.2. In addition to our business plan, we have a strategic plan that guides us. A key strategy is our goal of achieving 1 million fibre connections in 2022. Retaining customers is part of that strategic planning goal.</p>

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IR ref	Specific information requirements for connection capex	
A24	<p>A24 For proposed connection capex:</p> <p>A24.1 may provide historical capex (allocated)</p> <p>A24.2 must provide historical volumes of connections consistent with historical capex required by paragraph A24.1</p>	
	Interpretation/Assumptions/Explanation -	<p>A24 – our interpretation is that subparts (A24.1 and A24.2) of this request refer to connection capex as those are the first words of this paragraph, even though sub-section A24.1 refers just to ‘capex’. But we note that A24.1 and A24.2 could also be read as historical total capex.</p> <p>A24.1 - Our understanding is that it is optional for us to respond to this request for allocated historical (CY2016-19) connection capex (and also optional to provide historical allocated total capex if this request is read as total capex), given the language used in the request is ‘may provide’.</p> <p>A24.2 – We note that, as we are not required to provide A24.1 information, the historical volumes we provide in response to A24.2 cannot be confirmed as consistent with the historical capex in A24.1. We also note that connections capex is a regulatory concept that we are only required to provide for the PQP1 period.</p>
	Response/ Reference -	<p>For A24.1 - we do not provide a response as we understand A24.2 is optional.</p> <p>For A24.2 we provide historical volumes of connections in our ‘IFP Demand’ report, installations and connections section, charts ‘SDU installations, ROW and MDU extensions, and complex installations’. As noted above this is not confirmed as consistent with historical allocated connection capex (A24.1) as we are not required to provide historical allocated connection capex (or historical allocated capex), However the charts in the ‘IFP Demand’ report do provide trends for connections historically.</p>

IR ref	Asset valuation information relevant to forecast capex	
A25- A28	<p>A25 To the extent Chorus forecast capex information relates to commissioned assets or the methodologies in relation to asset valuation are relevant in producing capex forecasts, Chorus must apply the relevant methodologies and definitions in Part 3 Subpart 3: Asset valuation of Attachment B of the IM Determination, including:</p> <p>A25.1 commissioned and employed;</p> <p>A25.2 easement, easement land and fixed life easement;</p> <p>A25.3 finance leases;</p>	

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	<p>A25.4 <i>identifiable non-monetary assets;</i></p> <p>A25.5 <i>network spares;</i></p> <p>A25.6 <i>related party transaction;</i></p> <p>A25.7 <i>assets employed by Chorus in providing services that are not regulated FFLAS that are now forecast to be commissioned for FFLAS;</i></p> <p>A25.8 <i>vested assets; and</i></p> <p>A25.9 <i>works under construction.</i></p> <p>A26 <i>Where these concepts are relevant to Chorus’s capex proposal, Chorus must provide additional information that explains how the forecasts in relation to the matters listed in A25 are based on relevant and demonstrably reasonable assumptions, data, methods and judgements.</i></p> <p>A27 <i>The proposed expenditure in relation to finance leases and identifiable non-monetary assets must be included in the proposed base capex and connection capex in accordance with the IM Determination.</i></p> <p>A28 <i>For the purpose of explaining proposed investment in right-of-use assets, Chorus, may:</i></p> <p>A28.1 <i>translate proposed commissioned values of right-of-use assets into annual cash-flows; and</i></p> <p>A28.2 <i>in respect of forecast and historical information, provide a comparison between:</i></p> <p style="padding-left: 40px;">A28.2.1 <i>cash flows of expensed amounts before Chorus commenced reporting in accordance with NZ IFRS 16; and</i></p> <p style="padding-left: 40px;">A28.2.2 <i>depreciation and interest expense cash flows after Chorus commenced reporting in accordance with NZ IFRS 16</i></p>
Interpretation/Assumptions/Explanation -	<p>Our assumption is that we need to respond to these questions A25 - A27 only to the extent forecast capex relates to commissioned assets, or the methodologies are relevant to forecast capex.</p> <p>And our assumption is that A28 is discretionary as it refers to Chorus ‘may’ explain proposed right of use assets in the ways set out in A28.</p>
Response/ Reference -	<p>For A25 and A26, very few of the concepts listed in A25 are directly applicable to forecasting capex. We have provided a long form response to these requirements in attachment ‘B3.2 A25-A28 - asset valuation’.</p> <p>For A27, identifiable non-monetary assets, with the exception of leases, are treated as capex throughout the proposal, including regulatory templates.</p> <p>For leases/right-of-use assets, Chorus will comply in full with the asset valuation requirements of the Fibre Input Methodologies Determination 2020 in relation to the calculation of the RAB roll forward, regulatory opex and</p>

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		<p>Maximum Allowable Revenues. However, for the purposes of presentation in the Regulatory Templates and other proposal documents, we have chosen to present regulatory years 2021–26 lease costs as opex-like cash flows, i.e. not applying NZ IFRS 16, in line with Information Request A28.1. This is to facilitate a comparison between lease costs prior to RP1 and RP1 forecast, and to avoid the year-on-year irregularity of the NZ IFRS 16 capex presentation. Regulatory template RT01 provides for this presentation.</p> <p>Also for A27 and A28.1, Regulatory template RT01 for CY 2021 to 2026 shows leases within the opex forecast and then shows them removed in a subtotal, with the capex lease forecast added to the capex forecast.</p> <p>And for A27 and A28, attachment ‘B3.2 A25-A28 - asset valuation’, provides explanation of the relevance of finance leases, identifiable non-monetary assets and right of use assets for our RP1 forecast.</p> <p>We have chosen not to present right of use assets (leases) in the way set out in A28.2. We consider that this option provides a less comparable presentation of leases, because it approximates to a comparison of the impact on the MAR, rather than the economic cost of the leases. We have chosen the option in A28.1, because the <i>cash flows</i> relating to leases are not affected by changes in accounting standards and so provide a better comparison of forecast and historical lease costs. Our understanding is that this information request is discretionary.</p>
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IR ref	Individual capex	
A29	A29	<i>Provide an overview of any individual capex proposals that Chorus is considering proposing prior to or during PQP1</i>
	Interpretation/Assumptions/Explanation -	Our assumption is that we interpret this question as at the point in time we finalised our response to the question (late November 2020).
	Response/ Reference -	<p>At the date of finalising this response we are aware of one potential individual capex proposal that we may submit prior to or during RP1 related to network resilience.</p> <p>This proposal would include a programme of improvements for single site resolution times so that if a site becomes inoperable the number of customers and end users impacted, and recovery times are reduced.</p> <p>The proposal is based on reducing the NIPA standard of no more than 50,000 premises passed per central office to no</p>

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	<p>more than 25,000. Chorus currently only has one central office currently over this limit with a further four sites forecast to exceed the proposed 25,000 limit by 2040.</p> <p>This programme of work is not in the forecast for our base capex proposal.</p> <p>We will provide an update to the Commission on the nature of this proposal when it is further developed.</p> <p>We note that it is still possible that other individual capex proposals may need to be developed next year or during RP1 for other expenditure that is currently uncertain e.g. in timing and scope, and at a level where an individual capex proposal is identified as appropriate.</p>
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IR ref	Capitalisation of costs
A30- A31	<p>A30 Provide a summary of Chorus's approach for capitalising labour costs and any other costs Chorus capitalises.</p> <p>A31 Provide a quantitative demonstration that Chorus's proposed base capex, proposed connection capex and proposed opex (in aggregate) is consistent in relation to:</p> <p>A31.1 forecast capitalised costs (proposed base capex and connection capex), and</p> <p>A31.2 expensed costs (opex) in relation to labour costs and any other costs Chorus capitalises</p>
	<p>Interpretation/Assumptions/Explanation -</p> <p>We have interpreted the requirement for A31 to include any costs we forecast or otherwise treat as opex prior to their capitalisation, following an accounting standards principle. We are therefore excluding any costs that we forecast directly as capex, including incentives. We have assumed the intent of this information request for a quantitative demonstration is to show that capitalised costs are not duplicated by costs within opex (e.g. If we say \$20m of capex relates to labour costs we have capitalised, you would expect to see a corresponding \$20m reduction in our total labour opex forecast).</p>
	<p>Response/ Reference -</p> <p>For A30 - Please refer to attachment 'B3.3 A30 – capitalisation'.</p> <p>For A31 refer to 'C7. A31 - opex to capex quantitative analysis'. This demonstrates expensed costs (opex) that we capitalise. As per our interpretation, these costs fall under the following categories:</p> <ul style="list-style-type: none"> • <i>labour costs</i> <ul style="list-style-type: none"> ○ these are fully forecast as opex and then capitalised, as required, if they meet the requirements to do so under accounting standards

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		<ul style="list-style-type: none"> ○ labour costs are capitalised using timesheets and a labour cost rate. There are therefore no direct models to trace consistency between opex and capex ● <i>IT costs</i> <ul style="list-style-type: none"> ○ IT operating costs are capitalised if they meet the criteria of NZ IFRS 15 in relation to provisioning new customers or retaining existing customers ○ These costs are easy to show as consistent, as the same model (T046) drives both the opex deduction and the capex addition ● <i>Customer acquisition and retention costs</i> <ul style="list-style-type: none"> ○ these are also referred to as “provisioning” costs, explicitly excluding incentives, which we forecast directly into capex ○ All negative amounts in our cost centres 1509 and 1559 relate to provisioning costs capitalised.
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IR ref	Opex proposal – general
A32	<p>A32 <i>Chorus</i> must provide the following information:</p> <p>A32.1 an explanation of how <i>Chorus’s</i> overall business strategy and asset management strategy is reflected in its proposed <i>opex</i> for <i>PQP1</i>;</p> <p>A32.2 an explanation of key trends between levels of <i>historical opex</i> and proposed <i>opex</i>, including:</p> <p>A32.2.1 any key cost allocation assumptions <i>Chorus</i> made to allocate expenditure to <i>PQ FFLAS</i> (for proposed <i>opex</i>) and, if <i>Chorus</i> chooses to provide <i>historical</i> allocated information, <i>UFB FFLAS</i> (for <i>historical opex</i>) that influenced those trends; and</p> <p>A32.2.2 where relevant to the explanation, <i>Chorus</i> may provide:</p> <p>A32.2.3 unallocated <i>historical operating costs</i> ; and</p> <p>A32.2.4 <i>proposed opex</i>;</p> <p>A32.2.5 where relevant to the explanation <i>Chorus</i> may provide <i>historical opex</i> allocated to <i>UFB FFLAS</i></p> <p>A32.3 a description of the approval process <i>Chorus</i> used for adopting the proposed <i>opex</i>;</p> <p>A32.4 evidence demonstrating if, and how <i>Chorus</i> has, in relation proposed <i>opex</i>:</p> <p>A32.4.1 pursued, and is pursuing, process improvements that led or will lead to cost efficiencies and reduce <i>opex</i>;</p> <p>A32.4.2 ensured and is seeking to ensure appropriate least whole-of-life cost and efficiency improvements;</p>

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	<p>A32.4.3 <i>pursued and is pursuing cost reduction strategies for its projects and programmes; and</i></p> <p>A32.4.4 <i>ensured and is seeking to ensure that both internal and external suppliers of goods and services have incentives to perform well and to identify cost savings; and</i></p> <p>A32.5 <i>summarise any efficiency assumptions that Chorus has applied in its proposed opex</i></p>
<p>Interpretation/Assumptions/Explanation -</p>	<p>We interpret A32.1 to involve provision of an explanation at a high level as it refers to ‘overall’, and that there are two aspects to this – business strategy and asset management strategy.</p> <p>For A32.2, our assumptions are that in explaining key trends it’s discretionary for us to provide:</p> <ul style="list-style-type: none"> • unallocated historical operating costs (A32.3.2) and proposed opex (A32.2.4) • historical opex allocated to UFB FFLAS (A32.2.1, A32.2.5)
<p>Response/ Reference -</p>	<p>Our response A32.1 is provided in:</p> <ul style="list-style-type: none"> • ‘IFP Overview’ – which explains business strategy and asset management in terms of our proposal at an overview level • ‘IFP Governance’ – which explains our asset management approach overall (‘Asset management’ section) • ‘IFP Investment Summary’ – which explains business strategy in the ‘Overview’ section under the heading ‘Trends, drivers and strategy’ • Introduction to the Investment report – which provides explanation on our asset management approach and improvement plans (in section ‘How we manage our assets’). <p>For A32.2 in the ‘IFP Overview’ and ‘IFP Investment Summary’ we provide explanation of key trends between levels of historical and proposed opex with explanation that includes:</p> <ul style="list-style-type: none"> • unallocated historical operating costs CY2016-19, inclusive • allocated opex for CY2020–26. <p>We explain the key cost allocation assumptions made to allocate opex to PQ FFLAS that influenced these trends in our ‘Modelling and Cost Allocation Report’, ‘Appendix A’ under heading ‘Cost allocation methodology applied’.</p> <p>For A32.3 we provide description in our ‘IFP Governance’ report (last section, called ‘We used a robust process to</p>

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		<p>bring our proposal together’) of the approval process used in adopting the proposed opex.</p> <p>For A32.4 and 32.5 (regarding efficiencies) we provide an explanation in ‘IFP Investment Summary’ – ‘Overview’ section and we have an additional response for this at an expenditure category and sub-category level in attachment ‘B2.3 A16.4 (all), A16.6, A32.4 (all), A32.5 – efficiencies’. This attachment also includes information on efficiency assumptions.</p>
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IR ref	Opex sub-categories
A33 - A39	<p>A33 Provide a description of the drivers, outputs, outcomes and benefits for each opex sub-category.</p> <p>A34 Provide a summary of each opex sub-category, including its drivers, outputs, outcomes, and benefits, where:</p> <p>A34.1 Chorus must provide a description of the targeted impact on key outcomes; and</p> <p>A34.2 this summary must describe key outcomes Chorus is targeting in relation to performance, availability or other quality dimensions with the proposed opex subcategory</p> <p>A35 Provide a description of the approval process (including governance arrangements) Chorus used in developing the proposed opex for each opex sub-category.</p> <p>A36 An overview of the methods used to develop the proposed opex forecast for each opex sub-category and for opex in aggregate, which must include:</p> <p>A36.1 details of the forecasting approach used for each opex sub-category, eg, bottom up, base-step-trend, benchmarking analysis including where relevant, any quantitative or economic analysis used in the approach;</p> <p>A36.2 why Chorus considers the forecasting approach used for each sub-category is appropriate;</p> <p>A36.3 the key assumptions of the forecasting approach Chorus used for each opex sub-category and how Chorus applied the key assumptions;</p> <p>A36.4 details of how the effects of uncertainties are incorporated in forecasts;</p> <p>A36.5 any factors driving a material change in levels of proposed opex for each of the opex sub-categories forecast for PQP1;</p> <p>A36.6 details of the challenge and approval process employed for sign-off of opex forecasts; and</p> <p>A36.7 a schedule of key models used, accompanied by explanations of the models and how they were relied upon.</p> <p>A37 Provide historical opex for each opex sub-category (where information may be pre-allocation).</p> <p>A38 Provide, for each opex sub-category, the outputs, outcomes, and benefits of that opex and an explanation of the connections between the outputs, outcomes, and benefits.</p>

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	<p>A39 Provide a list of and description of Chorus's existing key policies that materially influence proposed opex in each opex sub-category, such as:</p> <p>A39.1 asset management, including ensuring lowest whole of life costs for assets;</p> <p>A39.2 business planning;</p> <p>A39.3 insurance (including self-insurance); and</p> <p>A39.4 procurement related to proposed opex</p>
	<p>Interpretation/Assumptions/Explanation -</p> <p>With A33, A34 and A38 we interpret 'outputs, outcomes, and benefits and the connections between' them to be the same concepts covered discussing our plans for expenditure. We don't always use the language of outputs, outcomes and benefits but the same concepts are part of our response.</p> <p>We consider 'drivers' to mean the reasons for expenditure, why it is needed and planned. A driver in our view could be a resource, process or condition that is required for the success and growth of a business.</p> <p>We understand 'output' to be the products of a programme or project of work. For example, a new or upgraded IT help desk system.</p> <p>We understand the 'outcome' is the result of the change derived from the output. Using the IT system example this could be that the support people can answer more requests. We understand 'benefits' to be measurable improvements resulting from an outcome. For example, escalation of cases drops from x % to y%.</p> <p>For A34.2 we interpret this to require response on key outcomes for quality dimensions, so our level of response is at a higher level of description.</p> <p>For A36.4 regarding uncertainties in forecasts, we assume our response for each opex sub-category is only required where there is uncertainty. Where we do have uncertainties with forecasting of opex sub-categories the uncertainty and its effect are described. Generally, this results in a corresponding assumption being stated that has been applied to our forecast.</p> <p>For A37 we note that the word 'pre-allocation' is used. We understand this means the same as unallocated expenditure, i.e. expenditure that has not been allocated to FFLAS.</p> <p>A39 requests descriptions of key policies that materially influence opex. We understand this relates to the examples</p>

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		<p>listed and any other policies that influence opex at a material level.</p>
	<p>Response/ Reference -</p>	<p>For A33, A34.1 and A38 we provide responses in the ‘Our plans’ section in the Investment report chapter for each sub-category of opex that relate to these responses. We also provide in attachment ‘B2.2 A8, A18, A20, A33, A34.1, A38 - drivers, outputs, outcomes and benefits – capex and opex’, a table that shows specific points drawn from the investment report at opex sub-category level.</p> <p>For A34.2 – responses are in sections on ‘Links to quality’ at the end of each Investment report opex chapter (addressing opex sub-categories), ‘IFP Investment Summary’ in ‘Linkages, synergies and trade-offs’ sections for expenditure categories; and the ‘IFP Quality’ report, ‘Links to expenditure’ sections for each quality dimension.</p> <p>For A35 and A36.6 we provide a description of the challenge and approval process for approval of opex forecasts in our ‘IFP Governance report’, last section (called ‘We used a robust process to bring our proposal together’), where we describe the business planning process that applies to all expenditure (including opex).</p> <p>For A36.1 – A36.5 we respond in the ‘Forecast expenditure’ sections for each opex chapter of the investment report. Attachment ‘B2.1 A17, A36 - forecasting approaches, key assumptions and uncertainties – capex and opex’ provides a table of forecasting approaches, key assumptions and uncertainties for opex sub-categories (collating information that is across opex chapters of the investment report). This table sets out the forecasting approach for each sub-category, and why it is appropriate (A36.1 and A36.2); key assumptions and how they are applied (A36.3) and uncertainties (A36.4). In addition, (for A36.4) our ‘Modelling and Cost Allocation Report’, (under the heading ‘Business forecasting approach’ within the ‘Modelling approach’ section) explains how the effects of uncertainties and assumptions are addressed in modelling.</p> <p>For A36.7 we provide a list of models (refer ‘Appendix B’ to ‘Modelling and Cost Allocation Report’). Explanation of how we have relied on the models to develop our regulatory forecast is provided in the ‘Modelling and Cost Allocation Report’, under ‘Financial forecast development’ heading in the ‘Modelling approach’ section.</p> <p>For A37 – we provide the historical unallocated (or pre-allocation) opex for each opex sub-category in charts in</p>

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		<p>each investment report chapter and regulatory template, RTO1.</p> <p>For A39 see response attachment ‘B1.4 A19, A39 – policies’. In addition to responding to the policy types listed in A39, we include descriptions of other policies for property, health and safety, and technology. This is because we consider these policies materially influence capex. We also attach our asset management policy and procurement policy (‘C2. Asset Management Policy’ and ‘C3. Procurement Policy’) as these are referred to as specific examples in this request.</p>
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IR ref	Cost escalators and foreign exchanges assumptions	
A40- A41	<p>A40 Provide the following information for each <i>cost escalator</i> in the <i>base capex proposal</i>, <i>connection capex baseline proposal</i> and <i>opex proposal</i> in responding to this notice:</p> <p>A40.1 a description of each <i>cost escalator</i> and the rationale for its use;</p> <p>A40.2 the methodology underlying the calculation of the <i>cost escalator’s</i> quantum, including by reference to inputs and assumptions;</p> <p>A40.3 the weighting given to each <i>cost escalator</i> and description of how that weighting was determined, including any assumptions relied upon; and</p> <p>A40.4 any consultant reports used in developing the <i>cost escalators</i>.</p> <p>A41 In respect of the foreign exchange assumptions used in responding to this notice, provide the following information:</p> <p>A41.1 a list of the foreign exchange rates, and the source of those rates, used to prepare the proposed <i>base capex</i>, proposed <i>connection capex</i>, and proposed <i>opex</i>; and</p> <p>A41.2 an estimate of the forecast exposure to foreign exchange movements for each foreign currency for each regulatory year of <i>PQP1</i> and a description of how these estimates were produced</p>	
	Interpretation/Assumptions/ Explanation -	No comments.
	Response/ Reference -	<p>For A40, there are two types of cost escalators – CPI and Real Price Effects (RPE).</p> <p>Refer to our responses in the ‘Modelling and Cost Allocation Report’, under heading ‘Modelling done in regulatory templates’.</p> <p>For CPI, we have followed the IM requirements per Capex IM 3.2.1(5). This is demonstrated in regulatory template RT02.</p> <p>For RPE, we have used an external consultant (NZIER) to provide cost escalation factors relevant for our expenditure</p>

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		<p>categories, including rationale for their use, methodology and weighting. Their two final reports (one for post-COVID-19) are attached (refer 'C4. NZIER report March 2020' and 'C5. NZIER report September 2020'). The application of RPE is demonstrated in regulatory template RT02.</p> <p>For A41, the only applicable foreign exchange rate for capex is USD. There is no foreign exchange rate applying to opex. The rate we have used is per the NZIER report (refer 'C4. NZIER report March 2020' and 'C5. NZIER report September 2020').</p> <p>The estimate of foreign currency exposure is demonstrated in regulatory template RT02 for each regulatory year. The description of how these estimates were produced is provided in 'Modelling and Cost Allocation Report', modelling section under heading 'Modelling done in regulatory templates'.</p>
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IR ref	Regulatory templates	
A42 - A43	<p>A42 <i>Provide quantitative information regarding the base capex proposal, connection capex baseline proposal, and opex proposal in regulatory templates that meet the minimum content and format requirements set out in Attachment C, and that apply the base capex sub-categories, connection capex types, and opex sub-categories in Attachment B.</i></p> <p>A43 <i>Where Chorus considers information that must be provided in a regulatory template to be confidential, it must provide versions of the regulatory template both with and without the confidential information</i></p>	
	Interpretation/Assumptions/Explanation -	We follow the specification as agreed with the Commission in the attachments to the Information Request dated 18 November 2020 for our regulatory templates, including how financial information for each calendar year is requested.
	Response/ Reference -	<p>A42 – A43 - Refer to the regulatory templates provided with our response that provide quantitative information according to the minimum content and format requirements as agreed in the attachments to the Commission's Information Request dated 18 November 2020.</p> <p>Our request for confidentiality with regard to regulatory templates is set out in the 'Confidential information appendix'. We provide versions of the templates with and without confidential information.</p>

IR ref	Cost allocation
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A3. Short form responses

<p>A44 - A45</p>	<p>A44 Provide a summary (including a graphical illustration) of the process and key assumptions Chorus used for allocating costs that are directly attributable to PQ FFLAS and opex and asset values that are not directly attributable to PQ FFLAS in the proposed base capex, proposed connection capex, proposed individual capex (if any) and proposed opex.</p> <p>A45 Provide the following for proposed base capex, proposed connection capex, and proposed opex:</p> <p>A45.1 The allocator types, cost allocators, asset allocators and allocator values Chorus used, including whether the cost allocators and asset allocators applied are based on a causal relationship or a proxy cost allocator;</p> <p>A45.2 a summary of instances where the same cost allocators and asset allocators have been applied:</p> <p style="padding-left: 20px;">A45.2.1 for similar expenditure types; and</p> <p style="padding-left: 20px;">A45.2.2 across time for a given expenditure type;</p> <p>A45.3 a summary of instances where different cost allocators and asset allocator have been applied:</p> <p style="padding-left: 20px;">A45.3.1 for similar expenditure types; and</p> <p style="padding-left: 20px;">A45.3.2 across time for a given expenditure type; and</p> <p>A45.4 a brief explanation of Chorus's intended approach to compliance with clause 2.1.3(3) of Attachment B of the IM Determination.</p>	
<p>Interpretation/Assumptions/ Explanation -</p>		<p>Our interpretation of A45.2 and A45.3 is that we respond to this by expenditure type, meaning expenditure categories as set out in the attachments to the Commission's Information Request dated 18 November 2020. We consider that our summary of similarities provided (for A45.2) also supports A45.3 as differences are the converse of similarities.</p>
<p>Response/ Reference -</p>		<p>Our response to A44, A45.1, A45.2, A45.3 is provided in the 'Modelling and Cost Allocation Report' – cost allocation section, where footnoted.</p> <p>We note that the first part of A45.1 is provided in RTO3 (allocator types, cost allocators, asset allocators and allocator values) and the second part (proxy or causal) is provide in the tables in 'Appendix A' to 'Modelling and Cost Allocation Report'.</p> <p>A45.4 asks for a brief explanation of our intended approach to compliance with IM determination 2.1.3(3). IM determination 2.1.3(3) states - <i>For the purposes of establishing an initial RAB, a regulated provider must apply the same allocator types as those used to determine the financial losses in accordance with Schedule B.</i></p> <p>[</p>

A3. Short form responses

		Chorus CI]
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IR ref	Specific cost allocation information	
A46- A48	<p>A46 <i>In this section we set out specific requirements in relation to cost allocation between PQ FFLAS and ID-only FFLAS.</i></p> <p>A47 <i>In relation to allocating forecast common costs between PQ FFLAS and ID-only FFLAS (where Chorus must apply the PQ FFLAS scope), Chorus must:</i></p> <p>A47.1 <i>provide an overview of the process and systems it has used to develop forecast cost allocators consistent with the working assumption for “PQ FFLAS scope”; and</i></p> <p>A47.2 <i>provide a summary of the forecast cost allocation outcome between PQ FFLAS, ID-only FFLAS and services that are not regulated FFLAS for the proposed capex and proposed opex for each regulatory year of PQP1.</i></p> <p>A48 <i>Chorus must also provide a summary of:</i></p> <p>A48.1 <i>An estimate of the lead time for Chorus to apply a different cost allocation scenario to that used in its proposed base capex, connections capex, and opex</i></p>	
	Interpretation/Assumptions/ Explanation -	<p>For A47.1 we confirm that we apply a working assumption for PQ FFLAS scope that broadly aligns with the Commission’s approach¹. However we have relied on the IAV modelling at a point in time and may be subject to change next year as part of the Commission’s process. We therefore interpret A47.1 to refer to the same process and systems we have used for cost allocation for PQ FFLAS.</p> <p>We interpret A47.2 as asking for a summary of the outcome between PQ FFLAS, ID-only FFLAS and services that are not regulated FFLAS, where the latter can be a combined value.</p>
	Response/ Reference -	A47.1 [

¹ The FFLAS services as described in the Commerce Commission, Fibre input methodologies: Main final decisions - reasons paper, 13 October 2020, pp 45-46.

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		<p style="text-align: right;">Chorus CI]</p> <p>A47.2 [</p> <p style="text-align: right;">Chorus CI]</p> <p>A48 - The lead time that we estimate for us to apply a different cost allocation scenario to the forecast base capex, connections capex and opex will depend on the scenario, so it could be between 4 weeks and 6 months.</p> <p>This includes scoping the new scenario, data gathering, internal review for end-to-end consistency, internal assurance/sign-off (to executive level) and updating the model – in some cases, this may also require structural changes to the model. If external assurance is also required, this would be in addition to the timeframes. For example:</p> <ul style="list-style-type: none"> • A less complex change, where data is readily available (e.g. layer 2 electronics) may be completed in 4 weeks. • In other cases (e.g. identifying in-scope vs out of scope backhaul), we need to gather information from a number of data sources. This may take 8 weeks to complete. • For a significant change, which requires us to source data sets for the physical network it may take 2 to 6 months to complete depending on the request.
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IR ref	Cross expenditure type programme or project specific information
A49 - A50	<p>A49 Chorus must provide the following information:</p> <p>A49.1 for each regulatory year of PQP1, proposed opex, proposed base capex, proposed connection capex or revenue (ie, where costs are taken to revenue) for:</p> <p>A49.1.1 projects or programmes aimed at increasing the number of PQ FFLAS end-users, including incentive programmes and discount programmes; and</p> <p>A49.1.2 projects or programmes aimed at retaining PQ FFLAS end-users, including incentive programmes, retention programmes and discount programmes;</p>

A3. Short form responses

	<p>A49.2 <i>In relation to direct fibre access services:</i>²</p> <p>A49.2.1 <i>the actual or estimated number of direct fibre access services connections before 1 January 2022;</i></p> <p>A49.2.2 <i>the forecast number of direct fibre access services connections for each regulatory year of PQP1;</i></p> <p>A49.2.3 <i>when responding to paragraph A49.2.1, Chorus may determine an appropriate reference date to report on, where the reference date used must be consistent with the information provided in response to paragraph A49.2.2;</i></p> <p>A49.3 <i>proposed base capex, proposed connection capex or opex related to layer 1 PQ FFLAS;</i></p> <p>A49.4 <i>forecast capital contributions in relation to each of the proposed capex in paragraphs A49.2, A49.6 and A49.3;</i></p> <p>A49.5 <i>any proposed base capex, proposed connection capex or proposed opex related to innovation (where Chorus is able to propose which expenditure it considers relates to innovation);</i></p> <p>A49.6 <i>provide a list of direct fibre access services Chorus proposes to offer during PQP1, including a summary of each service;</i></p> <p>A49.7 <i>an overview of the base capex by each geographic breakdown proposed in the regulatory templates;</i></p> <p>A50 <i>When responding to each of the requirements in paragraph A49 above; Chorus may make simplifying assumptions to provide a high-level estimate for each of the requirements. Where Chorus makes any such simplifying assumptions, Chorus must provide a summary of the key assumptions</i></p>
<p>Interpretation/Assumptions / Explanation -</p>	<p>Our interpretation of A49.1 (A49.1.1 and A49.1.2) is that it includes expenditure to incentivise customers, including via influencing RSPs.</p> <p>We interpret A49.1 (both sub parts) to exclude expenditure for provisioning customers (e.g. call centres, ordering systems and truck-rolls) – which is capitalised. Our reasoning is that these are not projects or programmes aimed to specifically retain or increase PQ FFLAS end users. They are costs to enable FFLAS to be deployed. We have also assumed that marketing spend does not come within the scope of a ‘project or programme’ as it is more general in nature.</p> <p>A49.2 refers to direct fibre access services which is a regulated FFLAS service that has not yet been set in regulation. We have therefore considered this question by looking for connection numbers of what we expect will be the most similar product to the regulated direct fibre access services. We call this ‘direct fibre access service’ and its product specification can be found here:</p>

² We note that a DFAS service has not been declared yet under s 228 of the Act.

A3. Short form responses

		<p>https://company.chorus.co.nz/sites/default/files/downloads/Chorus%20UFB%20Services%20Agreement%20Direct%20Fibre%20Access%20Service%20Description%20June%202017.pdf</p> <p>We interpret A49.3 layer 1 PQ FFLAS to include unbundled PON services. Our assumption is that Transport services and Point to Point services are not included within layer 1 PQ FFLAS in the context of this request. We note that other requests have been made related to Point to Point (e.g. DFAS is a type of Point to Point service) so our understanding is that layer 1 PQ FFLAS in this request relates to just unbundled PON services.</p> <p>For A49.7, we apply A50 which permits simplifying assumptions and provision of a high-level estimate of the base capex geographic breakdown. In addition, the regulatory template, RT01 specification in the attachments to the Commission’s Information Request dated 18 November 2020 provides for simplifying assumption for this geographic breakdown. We apply a simplifying assumption that installations capex is 95% of connections capex. By deducting the majority of the connection capex geographic breakdown we can provide this estimate of the base capex geographic breakdown. We note also that this request is for an <i>overview</i> of what is in the regulatory template geographic breakdown.</p>																									
	<p>Response/ Reference -</p>	<p>A49.1 - For A49.1.1 we refer to customer incentives programmes forecast per year in RP1 aimed at incentivising ‘new connections’ by end users – see first row in table below. This will be proposed connection capex.</p> <p>And for A49.1.2 we set out in the second row for ‘existing connections’ the incentives forecast per year for RP1 aimed at retaining customers on FFLAS. This expenditure is treated as proposed base capex.</p> <table border="1" data-bbox="657 1480 1348 1740"> <thead> <tr> <th></th> <th colspan="4">RP1 Customer incentives</th> </tr> <tr> <th></th> <th>CY2022</th> <th>CY2023</th> <th>CY2024</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>New connections</td> <td>[Chorus CI]</td> <td>[Chorus CI]</td> <td>[Chorus CI]</td> <td>[Chorus CI]</td> </tr> <tr> <td>Existing connections</td> <td>[Chorus CI]</td> <td>[Chorus CI]</td> <td>[Chorus CI]</td> <td>[Chorus CI]</td> </tr> <tr> <td>Total</td> <td>[Chorus CI]</td> <td>[Chorus CI]</td> <td>[Chorus CI]</td> <td>[Chorus CI]</td> </tr> </tbody> </table> <p>Note that the detailed breakdown provided to the Commission is commercially sensitive. To enable effective stakeholder consultation, following discussions with the Commission, we have indicated along with our total RP1 incentive forecast an illustrative range of forecast spend for each of new and existing connections across RP1, as follows:</p>		RP1 Customer incentives					CY2022	CY2023	CY2024	Total	New connections	[Chorus CI]	[Chorus CI]	[Chorus CI]	[Chorus CI]	Existing connections	[Chorus CI]	[Chorus CI]	[Chorus CI]	[Chorus CI]	Total	[Chorus CI]	[Chorus CI]	[Chorus CI]	[Chorus CI]
	RP1 Customer incentives																										
	CY2022	CY2023	CY2024	Total																							
New connections	[Chorus CI]	[Chorus CI]	[Chorus CI]	[Chorus CI]																							
Existing connections	[Chorus CI]	[Chorus CI]	[Chorus CI]	[Chorus CI]																							
Total	[Chorus CI]	[Chorus CI]	[Chorus CI]	[Chorus CI]																							

A3. Short form responses

		<table border="1" data-bbox="659 228 1139 344"> <tr> <td>New connections</td> <td>\$10-15m</td> </tr> <tr> <td>Existing connections</td> <td>\$30-35m</td> </tr> <tr> <td>Total</td> <td>\$45m</td> </tr> </table> <p data-bbox="659 387 1402 562">This table includes customer incentives for both new connections to end users and existing connections retentions in unallocated nominal dollars. It excludes any forecast amounts related to truckrolls, IT ordering systems and call centres.</p> <p data-bbox="659 602 1402 920">We note that the forecast approach and justification for customer incentives aimed at increasing and retaining end users or access seekers is explained in our Investment Report, 'Installations' chapter, section on 'attracting customers'. Note that where the expenditure relates to new connections to the network, this is captured in connections capex. The balance (i.e. incentives for retention of customers) forms part of base capex. We explain this in response to question A23 above.</p> <p data-bbox="659 960 1402 1274">For A49.1.1 - We also consider that our managed migrations programme is a programme aimed at increasing the number of FFLAS end users, or in other words 'new connections'. A portion of this programme (for internal labour and contracted work with door knocking/ direct marketing companies) is capitalised spend as it supports physical standard installations. And we treat this capitalised spend as connections capex. The value of the managed migrations programme (within connections capex) in RP1 per year is:</p> <table border="1" data-bbox="659 1312 1214 1402"> <thead> <tr> <th></th> <th>CY2022</th> <th>CY2023</th> <th>CY2024</th> </tr> </thead> <tbody> <tr> <td>Managed migrations capex</td> <td>\$1.6M</td> <td>\$0.8M</td> <td>\$0.7M</td> </tr> </tbody> </table> <p data-bbox="659 1442 1402 1832">The portion of both internal labour and contracted door knockers that is not capitalised remains in Opex, and forms part of the 'Customer Opex' chapter ('Customer Operations' section) explanation and the forecast costs sit in 'Support' opex chapter ('Corporate' section). The reason for this difference is that the managed migrations team has since been split to a different part of the organisation since our 5YP plan was approved. We are unable to separate these costs and allocate to FFLAS as they are not separately grouped (come within a labour cost centre for other activities). This is also explained in A23 above.</p> <p data-bbox="659 1872 1402 2038">For A49.2.1 we provide the actual and estimated number of direct fibre access services connections by providing volumes of Chorus product called direct fibre access service. This is provided, by calendar year (as at 1 January), for the 5 years prior to 1 January 2022:</p>	New connections	\$10-15m	Existing connections	\$30-35m	Total	\$45m		CY2022	CY2023	CY2024	Managed migrations capex	\$1.6M	\$0.8M	\$0.7M
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A3. Short form responses

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A3. Short form responses

		<p>A49.4 – requests forecast capital contributions for DFAS, layer 1 PQ FFLAS (or for this answer the unbundled PON service). Our response is:</p> <ul style="list-style-type: none">• This request does not apply to DFAS (A49.2 and A49.6) as we do not forecast capital contributions at that service level.• There are no capital contributions forecast for layer 1 PQ FFLAS (A49.3). <p>Our response to A49.5 on innovation is provided in the ‘IFP Investment Summary’, ‘IT and Support’ section. Our innovation programme, Chorus X is part of our base capex proposal and is \$12 million per year in RP1. We also have some opex costs for internal labour to run this programme. This opex is a small part of the product, sales and marketing expenditure sub-category in customer opex.</p> <p>In response to A49.6 we note that there is only one DFAS service, which will be a regulated service. This regulated service has not yet been set in regulation. This is noted in the footnote for A49.2.</p> <p>For 49.7 – Our regulatory template (RT01) provides the geographic breakdown for base capex. An overview of this geographic breakdown from the regulatory templates is provided in our ‘Modelling and Cost Allocation Report’, cost allocation section under heading ‘overview of base capex geographic breakdown’ and footnoted. We calculate 95% of the connection capex (installations capex) and deduct this from total capex geographic breakdown to get the base capex geographic breakdown required for regulatory templates and providing an overview of this to respond to this question, A49.7.</p> <p>For A50 we note the simplifying assumptions applied in A49 as follows:</p> <ul style="list-style-type: none">• For A49.2 – we have considered DFAS connections as connections for our product description of DFAS (not the regulated service, which is yet to be specified). And the connections volumes are taken directly from the Chorus Access Lines (CAL) report – both actuals and forecast.• For A49.7 – we applied simplifying assumptions to estimate the geographic breakdown for connection capex (as including all installations capex) and then deducted this estimate from total capex to calculate the base capex geographic breakdown. This approach is set out in the regulatory template, RT01.
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