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28 July 2014

Mr Matthew Schroder
General Manager
Fuel, Transport and Prices Oversight Branch
Australian Competition and Consumer Commission
GPO Box 520
Melbourne Vic 3001

via email: transport@accc.gov.au

Dear Matthew,

Australian Rail Track Corporation's Hunter Valley Rail Network Access Undertaking Revenue Allocation Review

Rio Tinto Coal Australia (RTCA), as manager of Coal & Allied Industries Limited, provides the attached submission in response to the ACCC's discussion paper regarding ARTC's Hunter Valley Rail Network Access Undertaking Revenue Allocation Review.

RTCA wishes to convey its appreciation of the efforts of the ACCC team in pursuing the revenue allocation review. It is apparent that ARTC's approach to allocating revenue has significant financial and investment implications for Hunter Valley rail network access holders, and as such, this review will be critical to improving transparency. Furthermore, RTCA is hopeful that the review process will result in amendments to the approach employed by ARTC to ensure that revenue allocation is aligned with fundamental principles of the access undertaking.

RTCA and Coal & Allied provide consent for the attached submission and accompanying presentation slide pack to be made available for publication by the ACCC in the normal manner.

As always, we would welcome the opportunity to discuss these matters directly with the ACCC and if you require any additional information, please call me on (07) 3625 5078.

Yours sincerely,

Adam Viertel

Manager – Infrastructure

Rio Tinto Coal Australia

Coal & Allied Industries Limited

Submission in response to the Australian Competition and Consumer Commission's Discussion Paper

In relation to the review of
Australian Rail Track Corporation's
approach to revenue allocation under the
Hunter Valley Access Undertaking

28 July, 2014

Introduction and overview

Coal & Allied (**C&A**) welcomes the opportunity to comment on the Australian Rail Track Corporation Limited's (**ARTC**) approach to revenue allocation under the Hunter Valley Access Undertaking (**HVAU**). C&A is appreciative that the Australian Competition & Consumer Commission (**ACCC**) is conducting this review, given that in doing so it has provided industry with a better understanding of the implications of ARTC's revenue reallocation processes.

C&A has identified a number of issues as part of the submission process and would like to highlight the following matters as being of critical importance:

1. The lack of transparency around ARTC's processes continues to prevent industry from making informed business and investment decisions
2. ARTC's revenue reallocation approach induces an economic distortion where C&A believes Zone 1 and Zone 2 Producers are expected to pay approximately $37m in 2013 for the Zone 1 capacity consumed by Zone 3 Producers
3. The HVAU does not mandate the reallocation of revenue from Zone 1 to Zone 3, and ARTC would be no worse off if it used an alternative approach
4. Failure to appropriately differentiate Access Charges for Zone 1 and Zone 2 has resulted in users of Zone 1 subsidising $19m of the Zone 2 economic cost in 2013
5. ARTC's 'Ceiling Test' does not detect or correct these cross-subsidies because it does not allocate revenue within the Zone in which the capacity was consumed, in contrast to the clear Zone basis for pricing, cost allocation, and determination of investment voting rights
6. Revenue reallocation and other cross-subsidies are impacting competition within the Hunter Valley coal industry and could potentially be impacting global thermal coal markets
7. Industry must seek resolution of these economic distortions for both prior and future periods, and ensure that the renegotiated HVAU provides more transparency and prescription

C&A would like to stress that it is extremely concerned about the lack of transparency in relation to ARTC's revenue allocation processes. It is our view that industry has never understood the implications of ARTC's reallocation of revenue from Zone 1 to Zone 3 as it has never been explicitly described, not even during the negotiation of the HVAU. C&A is especially concerned by ARTC's failure to address clear instances of industry's misunderstanding of these matters.

As one of the Hunter Valley's largest coal Producers, C&A has been an active contributor to the development of the HVAU and subsequent variations and has a strong interest in the outcomes of this review. In previous submissions to the ACCC, C&A has sought to ensure that pricing mechanisms appropriately incentivise efficient use of capacity, while arguing that each user should pay only for the below-rail capacity that they consume. For this to be the case, revenue allocation methods must align Access Charges with the Zone in which costs are incurred.

Having developed a comprehensive model to assess the financial impact of ARTC's revenue allocation approach, C&A has serious concerns about the reallocation of revenue collected in Zone 1 to cover the economic cost of providing track capacity in Zone 3. By implementing this reallocation, ARTC is effectively charging Producers in Zone 1 and Zone 2 for the Zone 1 capacity that is used by

Zone 3 Producers. C&A estimates that the total impact on Zone 1 and Zone 2 Producers of ARTC's revenue reallocation was $37.3m in 2013. This is a material impact attributable to a process that has no economic justification.

ARTC may seek to defend its approach on the basis that it has always reallocated revenue in this manner, however, C&A considers that this does not make it an economically justified approach. Furthermore, just because this approach may not be explicitly prevented by the provisions of the HVAU, doesn't mean that ARTC should continue to reallocate revenue when a better approach can equally be implemented within the framework of the HVAU.

An alternative approach, in which revenue is attributed only to the Zone from which it was collected, would rectify the economic distortions present in the current methodology. Furthermore, C&A considers that this approach would be feasible under the current provisions of the HVAU, and would not have a negative impact on either the economic position of ARTC or the Access Charges paid by Zone 3 Producers.

C&A also has concerns that ARTC may not be setting Access Charges appropriately across Zones 1 and 2. Users of Zone 1 appear to be paying revenue in excess of what would be required to cover the economic costs of Zone 1, while users of Zone 2 appear to be paying insufficient revenue to cover the economic costs of Zone 2. C&A considers that each user should pay sufficient revenue to cover the cost of the capacity that they consume, and that there can be no economic justification for cross-subsidies in the system.

Unfortunately, ARTC's approach to reconciling Access revenue with the Ceiling Limit does not detect or correct cross-subsidies between Zones. A combinatorial matrix model is used to determine whether Access revenue has exceeded the Ceiling Limit. Under this approach, the total economic cost associated with the Hunter Valley network is allocated to specific Zones using clearly defined principles. This is consistent with the underlying Zone basis of the HVAU, which also defines pricing by Zone and ensures that investment decisions are made only by users of the Zone in which the expansion is to be made. The Zone basis of the 'Ceiling Test' does not, however, extend to the strict allocation of revenue to the Zone from which it was collected. The failure to appropriately match revenue and costs permits ARTC to meet the requirements of the 'Ceiling Test', even when one Zone is subsidising another Zone. C&A considers that it is critical to ensure that revenue is appropriately matched to cost. This could be achieved by conducting the reconciliation on a Zone basis, where all Access revenue collected in the Zone, regardless of the train's origin, is matched to the economic cost of that same Zone.

It is essential to charge users of the rail network for the true cost of the capacity that they consume in order to achieve the objective of promoting efficient investment and operational decisions. The current cross-subsidies are material, and threaten the competitive position of some Producers while giving an unjustified advantage to others. Given the cost curve position of the Hunter Valley coal mines under current market conditions, it is feasible that the cross-subsidies in the system are having an influence on the thermal coal price in the global market, such that ARTC's processes could be impacting competition in markets beyond the Hunter Valley Coal Chain. Given the magnitude of economic distortion and its impact on competition, C&A considers that it is critical to resolve ARTC's approach to revenue collection and allocation.

Detailed comments outlining C&A's views are provided in the sections that follow, organised to address the matters raised by the ACCC's questions for stakeholders. C&A has included comments on how these issues could be resolved under the current HVAU, as well as views on how the HVAU could be improved when it is renegotiated.

* * *

ACCC questions in relation to transparency:

1. What information has ARTC provided to stakeholders about its revenue allocation practices?
2. To the extent that ARTC has provided information on revenue allocation, has it been sufficient to understand how ARTC allocates revenue across Segments of the network?
3. Do stakeholders consider they have sufficient information about ARTC's revenue allocation / reconciliation processes to make informed business and investment decisions? If not, please provide reasons why.

Lack of transparency

C&A considers that transparency is an important objective of the HVAU, because users of the Network can only make informed business decisions when there is complete transparency about the terms of access. In fact, Clause 1.2(c) specifically references the objective of transparency:

> "*The intent of the Undertaking is to use transparent and detailed methodologies, principles and processes for determining Access revenue limits, terms and conditions*"

While appreciative that the ACCC has brought the issue of revenue reallocation to the attention of industry, C&A is very concerned about the lack of transparency around ARTC's processes. Prior to the release of the ACCC's discussion paper C&A did not fully understand the implications of ARTC's revenue reallocation from Zone 1 to Zone 3. C&A considers it extraordinary that this process has not been properly understood by industry until now, given that the HVAU has been in effect for three years.

C&A's lack of awareness is clearly apparent in our prior submissions. For example, in a prior submission C&A argued that Zone 1 Access Charges for trains originating in Zone 3 must reflect the relative capacity consumed by those trains in Zone 1[1]. C&A asserted at this time that unless the charges were appropriately differentiated, Producers in Zone 1 and Zone 2 would be cross-subsidising Producers in Zone 3, given their use of relatively inefficient train configurations. C&A now understands that Zone 3 trains effectively contribute no revenue towards the cost of providing Zone 1 capacity, because ARTC reallocates the revenue collected from Zone 3 Producers in Zone 1 to cover the economic cost of Zone 3. If ARTC's revenue reallocation processes had been clear to industry,

[1] Coal & Allied Industries Limited, *Submission in response to the Australian Competition and Consumer Commission's Consultation Paper in relation to Australian Rail Track Corporation's Hunter Valley Rail Network Access Undertaking Variation*, 27 January 2012, p.2

C&A would have realised that concerns about relative access charges were irrelevant because regardless of the Access Charges set for Zone 3 trains as they pass through Zone 1, the Constrained Customers would be charged for the capacity consumed by those trains.

C&A is especially concerned that ARTC either did not recognise this lack of awareness, or chose not to take steps to increase transparency and improve the industry's understanding of these matters.

C&A would also like to note that given the lack of transparency around the calculations conducted by ARTC when completing the annual reconciliation processes, it has been challenging to assess the impact of revenue reallocation from Zone 1 to Zone 3. In later sections of this submission, C&A provides some estimates of the impacts to different Producer groups that arise through ARTC's approach to revenue collection and allocation. These estimates rely on various assumptions, including throughput and train configuration. Given the lack of information made available by ARTC, it is difficult to check the accuracy of the estimates. C&A considers it would be valuable for industry to have a greater understanding of the inputs and outputs to ARTC's calculations.

The lack of transparency around ARTC's revenue allocation processes impairs industry's ability to make informed business and investment decisions and could lead to sub-optimal economic outcomes. In the short term, Producers cannot appropriately budget for their below-rail costs if ARTC may seek to retrospectively recover Zone 1 and Zone 2 revenue shortfalls that arise solely through their reallocation of revenue from Zone 1 to Zone 3 (as ARTC has done in 2013). In the long term, Producers lack certainty about the magnitude of their below-rail cost liability, making it difficult to make informed decisions about whether to invest in new or expanded operations. C&A therefore considers that it is critical that ARTC improve the transparency of its methodologies, principles and processes, consistent with the objectives of the HVAU, to ensure that industry has sufficient information to make informed decisions.

ACCC questions in relation to other matters:

4. Please identify and explain any other matters relevant to this revenue allocation review.

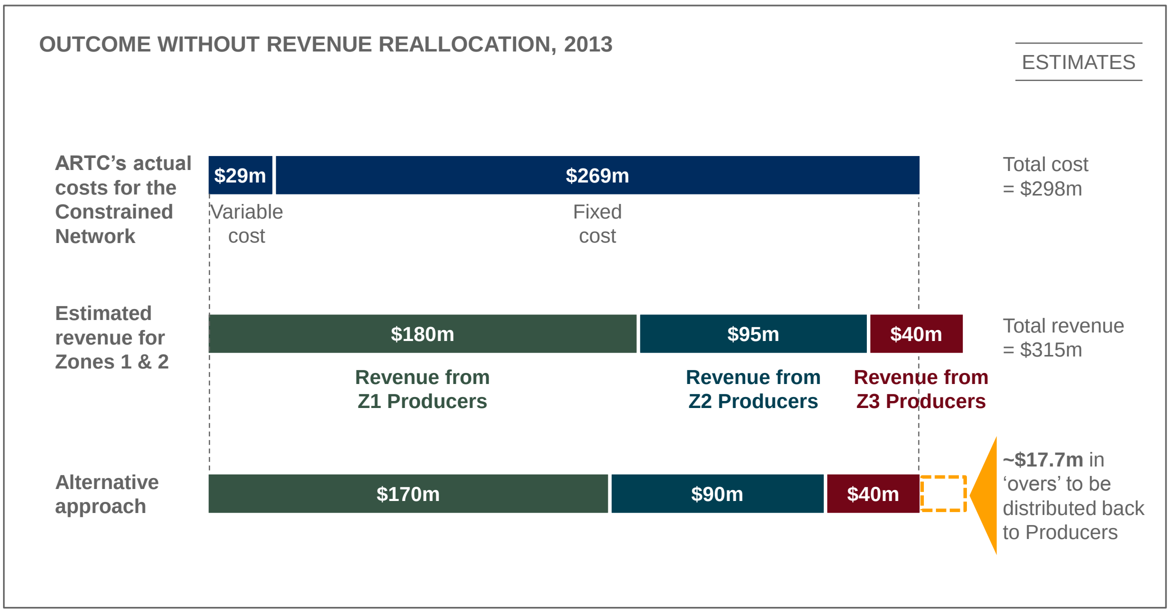
Current impact of the revenue allocation processes

C&A now understands that ARTC's revenue allocation process takes revenue collected from Zone 3 Producers for their use of Zone 1 capacity, and reallocates that revenue to offset the costs of providing Zone 3 capacity. By doing this, ARTC is effectively charging other users of Zone 1 for the cost of providing the capacity in Zone 1 that is used by Zone 3 Producers. This practice is not economically justified and is likely to be having a material negative impact on Zone 1 and Zone 2 Producers.

In the information submitted to the ACCC as part of the Annual Compliance Assessment for 2013, ARTC reported that the economic cost of the Constrained Network exceeded the revenue collected in that network[2], and that ARTC would therefore seek to recover the $19.6m shortfall from Zone 1 and Zone 2 Producers through the 'unders and overs accounting' process described in the HVAU (Section 4.9). C&A now knows that in doing its 'ceiling test' for the Constrained Network, ARTC failed to factor in the take-or-pay (**TOP**) revenue collected from Zone 3 Producers for their use of Zone 1 capacity. The ACCC noted in its Discussion Paper to the revenue allocation review that without the reallocation of this revenue from Zone 1 to Zone 3, ARTC would have actually over-recovered revenue in the Constrained Network[3]. While there is no transparency as to the magnitude of this over-recovery, C&A analysis estimates it to have been $17.7m in 2013 (see Figure 1).

By failing to return true 'overs' of $17.7m, and instead seeking to recover $19.6m in 'unders' (which only arise due to revenue reallocation), ARTC could negatively impact Zone 1 and Zone 2 Producers by an estimated $37.3mm in total in 2013. This is like a 'transport levy' which only applies to Zone 1 and Zone 2 Producers, but which relates to capacity consumed by Producers from Zone 3.

Figure 1



C&A was particularly concerned to note that the total accumulated capitalised loss in Zone 3 decreased from $10.4m in 2012 to $8.8m in 2013[4]. This means that the magnitude of excess revenue recovered from Zone 1 and Zone 2 Producers was sufficient not just to minimise ARTC's losses in Zone3 in 2013, but to actually recover Zone 3 losses from a prior period. As we discuss in more detail in the sections that follow, the HVAU allows for capitalised losses to be recovered from current and

[2] ARTC, *1 January to 31 December 2013 submission to Australian Competition & Consumer Commission in respect of Hunter Valley Access undertaking Roll Forward Asset Base, Ceiling Test, Unders and Overs Account*, May 2014, p.24
[3] ACCC, *Discussion Paper: Australian Rail Track Corporation's Hunter Valley Rail Network Access Undertaking Revenue allocation review*, 29 May 2014, p.11
[4] ACCC, *Discussion Paper: Australian Rail Track Corporation's Hunter Valley Rail Network Access Undertaking Revenue allocation review*, 29 May 2014, p.11; ACCC, *Consultation Paper: Australian Rail Track Corporation's compliance with the financial model and pricing principles in the Hunter Valley Coal Network Access Undertaking for 2013*, 13 June 2014, p.11

future Producers operating in Zone 3 but not from Producers operating in Zones 1 or 2. There is no economic justification for Producers operating solely in the Constrained Network to pay for the prior losses incurred by ARTC in Zone 3, for segments of track that they don't even use.

The economic distortion that arises from this additional infrastructure cost is commercially material. Given that coal prices are low and Australian Producers are facing increasing cost pressures, it is likely that ARTC's revenue reallocation approach is impacting the business decisions made by industry. An assessment of the economic viability of existing operations could be negatively impacted, potentially leading to decisions to scale back or even close mines. Similarly, investment in new mines or expansion projects could be affected by the additional 'transport levy' being charged to some Producers. Mine closures and project delays have flow on effects in the local community, especially where jobs are lost in mining or supporting industries, so the impact of ARTC's revenue reallocation likely extends beyond the financial impacts for individual coal Producers. C&A considers that the interests of both coal Producers and the public would best be served by resolution of ARTC's inequitable revenue allocation processes as soon as possible.

Potential for future increases in the magnitude of inequity

ARTC's reallocation of revenue from Zone 1 to Zone 3 is already having a serious impact on Constrained Coal Customers, but even more alarmingly there is a significant risk that the magnitude of inequity will increase in future years if the practice is allowed to continue. C&A considers that there are two factors that contribute to this risk: an increase in the revenue collected in Zone 1 from Zone 3 Producers, and greater potential for loss capitalisation in Zone 3.

Firstly, C&A expects that the total cost incurred by Zone 3 Producers for their use of Zone 1 capacity is likely to increase in future periods, a cost for which Zone 1 and Zone 2 Producers are liable under ARTC's current revenue allocation processes. In its most recent Corridor Capacity Strategy document, ARTC indicated that growth in contracted tonnes would be predominantly from the Gunnedah Basin, and also identified up to ~18Mtpa of prospective demand from Zone 3 that could come online by 2021[5]. If all of ARTC's forecast demand eventuates, this represents a ~2.5 fold increase on 2014 contracted tonnages. C&A expects that there would need to be significant investment in additional Zone 1 capacity to support even part of this new demand, leading to a greater annual economic cost related to use of Zone 1 by Zone 3 Producers. Under ARTC's current revenue reallocation processes, Producers from Zone 1 and Zone 2 are held entirely responsible for meeting the economic cost of Zone 1 and would therefore be forced to absorb the increased costs that would arise in Zone 1 due to the increased capacity demands of Zone 3 Producers.

Secondly, C&A expects that the magnitude of loss capitalisation in Zone 3 will undergo a step change increase due to the recent change to the boundaries of Zone 3, providing ARTC with an increased incentive to minimise losses through the transfer of revenue from other Zones. ARTC's Zone 3 asset base has been substantially expanded with the inclusion of the Gap to Turrawan segments[6]. With the addition of these segments, C&A estimates a significant increase in the total accumulated loss capitalisation by the end of 2014 (~$25m, up from $8.8m at the end of 2013). This provides

[5] ARTC, *2014-2023 Hunter Valley Corridor Capacity Strategy – Consultation Draft*, June 2014, p.5 and p.14
[6] ACCC, *Decision: Australian Rail Track Corporation's variation of the Hunter Valley Access Undertaking to include the Gap to Turrawan Segments*, 25 June 2014, p.5

significant additional incentive and scope for ARTC to continue to reallocate revenue from Zone 1 to Zone 3, at least in the medium term until there is sufficient increase in demand in Zone 3 to start to recover losses in that Zone.

C&A is also concerned that as ARTC invests in Zone 3 to accommodate increased demand, there is a risk that this will lead to an increase in the revenue shortfall in Zone 3. It is not certain whether Zone 3 Access Charges are set at a level that allows recovery of the cost of expansions in Zone 3. Although Clause 4.13(b)(iii) states that ARTC should have an objective of fully recovering the new capital component of costs when it determines Access Charges, the HVAU does not mandate this approach. C&A is therefore concerned that expansion of Zone 3 could provide ARTC with further incentive and scope to reallocate revenue from Zone 1 to Zone 3. C&A would also like to note that under the rules of the Rail Capacity Group it has no ability to object to expansions in Zone 3, despite the potential impact on C&A's business interests under ARTC's current revenue reallocation processes.

Given the risk of increased cost of providing Zone 3 Producers access to Zone 1 capacity and the increased losses that would otherwise be capitalised in Zone 3, C&A considers that if ARTC's revenue reallocation practices are not corrected now, then the impact on Zone 1 and Zone 2 Producers will become significantly worse in future periods.

A better approach to revenue allocation

C&A is of the strong opinion that ARTC should ensure that revenue contributed for use of a Zone is only used to cover the economic costs of that same Zone. If this is to be the case, then ARTC should cease the approach of taking revenue collected from Zone 3 Producers for their use of Zone 1 capacity and reallocating this revenue to cover the cost of Zone 3 capacity.

It appears that a better approach to revenue allocation is feasible within the provisions of the existing HVAU[7]. Clause 4.3(a) prescribes that revenue must not exceed economic cost in Zones 1 and 2, but is silent on the reallocation of revenue from one Zone to another:

> "*In relation to Segments identified as forming part of Pricing Zone 1 and 2 in Schedule E, Access revenue from any Access Holder, or group of Access Holders must not exceed the Economic Cost of those Segments which are required on a stand alone basis for the Access Holder or group of Access Holders*"

Similarly, Clause 10.4(d)(ii) prescribes that the ACCC will determine whether ARTC has undertaken the relevant revenue reconciliation calculations, but does not specify the calculation methodology:

> "*The ACCC will determine whether ARTC has undertaken, when required, the calculations relevant to the reconciliation of Access revenue with the applicable Ceiling Limit and calculation of any allocation of the total unders and overs amount in accordance with the Undertaking…*"

It is C&A's view that ARTC has some flexibility to adopt an equitable approach to revenue allocation given that the HVAU does not prescribe the reallocation of revenue from one zone to another. Furthermore, ARTC would be no worse off if it ceased to reallocate revenue from Zone 1 to Zone 3.

[7] ARTC, *Hunter Valley Coal Network Access Undertaking*, 25 June 2014 variation

C&A recognises that ARTC has previously been allowed, under the terms of the NSWRAU, to reallocate revenue in order to minimise losses in the unconstrained network. It is C&A's view that a process is not economically justified simply because the NSWRAU allowed it, and does not support the retention of any approach that induces an economic distortion. In fact, C&A considers that there are other provisions which should not be reintroduced to the regulatory framework today despite previously being a part of the NSWRAU framework. As an example of this, the NSWRAU allowed for the 'pre-cusp' and 'post-cusp' pricing mechanism, which arbitrarily set different Access Charges depending on the timing of haulage across a given year. This is clearly not an economically justified approach to pricing, and C&A would seriously dispute the merit of reverting to such an approach. In the same way, revenue reallocation is not economically justified and C&A considers that prior acceptance under the NSWRAU is no rationale for ARTC to continue to allocate revenue collected in Zone 1 to offset its costs in Zone 3.

It is also worth noting that the NSWRAU and HVAU are completely different regulatory regimes. For example, ARTC did not have a mechanism under the NSWRAU for recovering losses in the unconstrained network. This is not the case under the HVAU, which allows for loss capitalisation in Zone 3. Clause 4.3(b) prescribes that total revenue must not exceed the Ceiling Limit but only where the RAB is equal to, or falls below, the RAB Floor Limit:

> "*In relation to Segments identified as forming part of Pricing Zone 3 in Schedule E, the Access revenue from any Access Holder, or group of Access Holders must not exceed the Ceiling Limit where the RAB for those Segments is equal to, or falls below, the RAB Floor Limit for those Segments at the end of the calendar year (t-1)*"

If ARTC has not recovered sufficient revenue to cover its economic costs in Zone 3, then the difference between the RAB and the RAB Floor Limit will increase for that year. Given that the RAB and RAB Floor Limit are rolled forward each year, any shortfall in revenue rolls forward to future periods. ARTC is not constrained by the Ceiling Test until the RAB falls to (or below) the RAB Floor Limit, therefore it is able to recover additional revenue from Zone 3 Producers until it has recovered all of its capitalised losses from prior periods.

Under this mechanism, ARTC recovers both the loss and a return on the loss at the regulated rate of return. It is the equivalent of ARTC reinvesting the revenue shortfall back into the asset base rather than receiving it immediately as cash. The accumulated losses will then be recovered when total demand in Zone 3 increases to a point where Access Charges are sufficient to cover the economic cost of Zone 3.

C&A can envisage ARTC raising concerns about asset stranding risk and the likelihood of ever recovering capitalised losses, but C&A does not consider this argument to be valid. ARTC's own planning indicates that it has expectations of future growth in Zone 3 demand. Total Zone 3 volumes, including both contracted and prospective volumes, are forecast to increase from ~16Mtpa in 2014 to nearly 45Mtpa in 2021. C&A analysis suggests that total Zone 3 demand of ~34Mtpa would allow ARTC to receive revenue that would cover the full economic cost of Zone 3, equivalent to the addition of around half of ARTC's prospective demand. Any volumes above this would likely allow ARTC to recover losses from prior periods. C&A is therefore of the view that ARTC is not likely to be stranded with a capitalised loss asset that can never be recovered.

C&A considers that if ARTC does not wish to make use of loss capitalisation, then there are a number of ways in which it can minimise its risk of losses without the economic distortion of revenue reallocation. Firstly, ARTC could raise Access Charges for Zone 3. C&A estimates that the revenue shortfall in Zone 3, had ARTC not reallocated revenue from Zone 1, would have been ~$35.6m in 2013, which equates to ~$2/t if spread across the contracted volumes in Zone 3. Although ARTC seems reluctant to charge Zone 3 users for the full cost of Zone 3, it does not appear impossible for them to do so. Furthermore, if ARTC is genuinely concerned about loss capitalisation then it should cease to make additional investment in the Zone 3 asset base, including the expansion projects that might be necessary to support the forecast increase in demand from Zone 3. It is therefore C&A's opinion that ARTC has no justification for reallocating revenue from Zone 1 to Zone 3, given that it can capitalise Zone 3 losses or take steps to otherwise minimise its risk of loss in Zone 3.

C&A would also like to highlight that Zone 3 Producers would not necessarily be negatively affected if ARTC ceased to reallocate revenue from Zone 1 to Zone 3. The HVAU specifies that ARTC must give consideration to achieving maximum recovery of capital costs from all users (Clause 4.13(b)). For Zone 3, which is unconstrained, ARTC seeks to maximise cost recovery by defining total Access Charges that will maximise network utilisation by not being so high as to make Zone 3 mines uneconomic. Any reallocation of revenue by ARTC should not impact its assessment of Zone 3 Producers' ability to pay Access Charges, and so the revenue recovered from these Producers should not change.

In the longer term, if ARTC ceases to reallocate revenue from Zone 1 to Zone 3 then total losses accumulated in Zone 3 will be higher than they otherwise would have been. This is because Zone 1 and Zone 2 Producers would no longer be paying excess revenue in the Constrained Network, and ARTC will only be able to allocate revenue collected in Zone 3 to cover the economic cost of Zone 3. Given that total losses would be higher in Zone 3, total Access Charges paid by current and future Zone 3 Producers will in aggregate be higher. It is C&A's view that this is an economically justified outcome, given that Zone 3 costs should be recovered from the users of that Zone – i.e. current and future Zone 3 Producers – and not through over-recovery of revenue from Zone 1 and Zone 2 Producers to allow ARTC to minimise losses in a Zone that these Producers do not use.

Concerns about other cross-subsidies

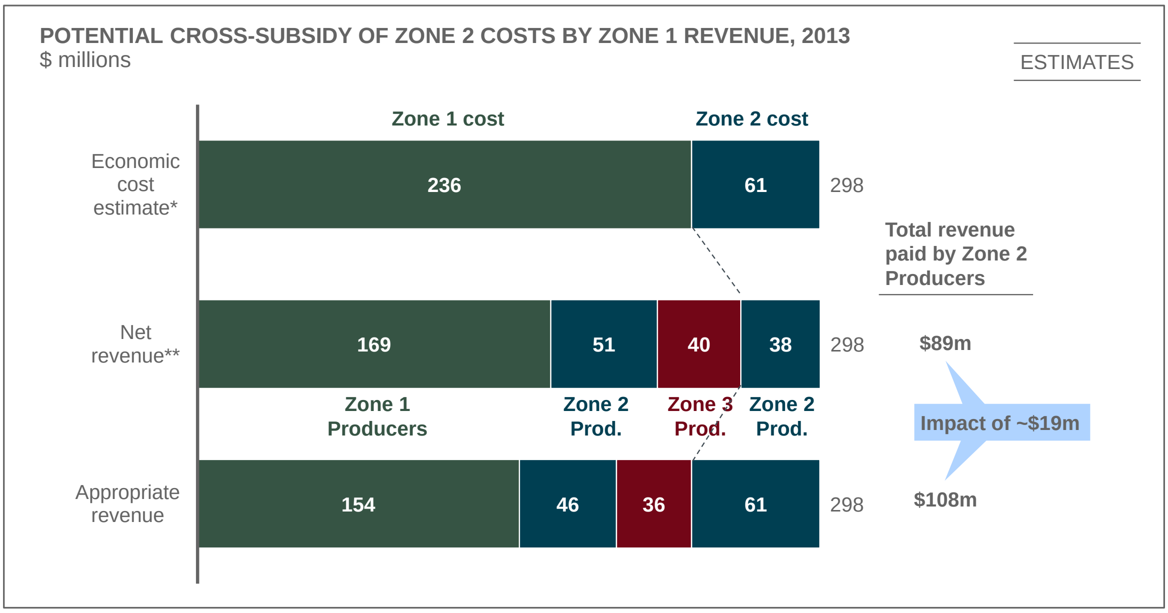
C&A has conducted a detailed analysis of the costs and revenues by Zone in order to estimate the impact of ARTC's revenue allocation processes. Having done this analysis, C&A is now also concerned that ARTC may be setting an inappropriate price differential between Zone 1 and Zone 2, whereby revenue collected in Zone 1 is in excess of ARTC's Zone 1 costs and is therefore being used to subsidise the costs of Zone 2.

It is difficult to be certain of the magnitude of the cross-subsidy, given that there is no transparency about costs and revenue on an individual Zone basis. Using information provided by ARTC in its notification of 2013 Initial Indicative charges[8] and its submission for the 2013 Annual Compliance

[8] ARTC, *2013 Initial Indicative Access Charges (2013 IIAC)*, November 2012

Assessment[9], as well as internal estimates of coal tonnages and train configuration, C&A estimates that the cross-subsidy had a net impact of ~$19m in 2013 for non-Zone 2 users of Zone 1[10] (see Figure 2 for details of these estimates).

Figure 2



It is C&A's view that there is no economic justification for charging users of Zone 1 for the cost of providing Zone 2 capacity. Pricing should send signals to industry about the economic cost of the capacity that is consumed. If Zone 1 users are subsidising Zone 2 users, then this economic distortion could have an impact on the operational and investment decisions made by Producers.

C&A considers that ARTC should have regard to the recovery of the economic cost of each Zone from the Producers who use that Zone when setting Access Charges. Access Charges for the use of Zone 2 should be set to recover the economic costs of Zone 2, and Access Charges for the use of Zone 1 should be set to recover (no more than) the economic costs of Zone 1. If this was done correctly then cross-subsidisation would only occur if there was a substantial deviation from ARTC's cost or demand estimates for each Zone. C&A can find nothing within the HVAU that would prevent ARTC from setting appropriate Access Charges for users of Zone 1 and Zone 2. Of course, Zone 2 Producers would be negatively impacted if any cross-subsidy by Zone 1 was eliminated, however, C&A considers that this is an economically justified outcome given that Zone 1 Producers do not travel through Zone 2 and therefore should not pay for the cost of providing Zone 2 capacity.

ARTC's process for reconciling Access revenue with the Ceiling Limit should identify and correct for any cross-subsidy in the system. C&A now understands that ARTC uses a combinatorial matrix process to conduct the 'Ceiling Test' (interestingly this term is not defined at all within the HVAU),

[9] ARTC, *1 January to 31 December 2013 submission to Australian Competition & Consumer Commission in respect of Hunter Valley Access undertaking Roll Forward Asset Base, Ceiling Test, Unders and Overs Account*, May 2014

[10] Note that Zone 2 Producers are also paying more in Zone 1 than they should be, and this is factored in to the calculation of the net impact to other users of Zone 1

which is described in detail in a report prepared by the Rail Access Corporation in 1999[11]. Under this approach, various combinations of mines are tested for their compliance with the 'Ceiling Limit' by comparing total Access revenue collected from the relevant mines with the total cost of providing the segments that those mines require to deliver coal to the port. C&A considers that this approach, which makes an assessment by mine rather than by section of rail track, does nothing to prevent cross-subsidies in the network.

As an example, C&A estimates that Zone 1 Producers paid approximately $169m in 2013 for their use of Zone 1 capacity, while their share of Zone 1 costs was approximately $154m. If these estimates are accurate, then it is clear that Zone 1 Producers have paid $15m more than the cost of the capacity that they have consumed. Similarly, comparison of the total revenue collected in Zone 1 (estimated at $260m) is well in excess of the total cost of Zone 1 (estimated at $236m), suggesting that revenue should be returned to users of Zone 1. By contrast, the 'Ceiling Test' for Zone 1 mines would check whether total Access revenue from these mines of ~$169m exceeded the total economic cost of all of the segments required by the mines to access the port, that being the entire Zone 1 network, which is estimated at $236m. The test ignores the fact that other mines in Zones 2 and 3 also make use of Zone 1 and that their revenue should therefore contribute to the cost of providing Zone 1 capacity. By failing to appropriately match revenue to the Zones in which it is collected, the 'Ceiling Test' does not identify or correct the cross-subsidy that C&A believes has occurred between Zones 1 and 2 in 2013.

C&A considers that the 'Ceiling Test' should be conducted independently for each Zone. Under this approach, a Ceiling Test conducted for Zone 1 would consider all Access revenue collected in Zone 1 (through the application of Zone 1 Access Charges to the gross-tonne-kilometres occurring in Zone 1), regardless of the origin of the train. Such an approach would be much more consistent with the Zone basis of the HVAU, where costs are allocated to specific segments in each Zone, access pricing is defined by Zone and even investment voting rights, through the RCG, are defined by Zone. A Zone-specific approach to the 'Ceiling Test' would ensure that users of each Zone pay appropriately for the cost of the capacity that they consume.

Retrospective adjustment is appropriate

Given the magnitude of the impact and its effect on the competitive position of Producers, C&A would like the ACCC to give consideration to retrospectively adjusting for the impact of ARTC's inappropriate revenue reallocation and Zone cross-subsidies in prior calendar years. We recognise that a retrospective adjustment could be complex to administer, but consider that the benefit of correcting the economic distortion would be substantial.

At a minimum, C&A can see no reason why the revenue reallocation issue could not be resolved for the 2013 calendar year. Given that the ACCC is yet to determine ARTC's compliance for 2013, ARTC could submit new information based on an alternative revenue allocation methodology which does not arbitrarily reallocate revenue from one Zone to another. Of course, it is C&A's view that this alternative methodology should then remain standard practice for all subsequent years for the term of Access Undertaking.

[11] Mike Smart of the Rail Access Corporation, *Solving the Riddle of Combinatorial Logic*, October 1999

Greater prescription in the renegotiated HVAU

Given the level of flexibility under the current HVAU, C&A is of the view that a more prescriptive approach should be taken when the new HVAU is renegotiated to ensure that ARTC's processes are both transparent and economically justified. In particular, C&A will seek to include better and more clearly defined processes for revenue allocation, reconciliation of Access revenue with the Ceiling Limit and allocation of 'unders and overs' when it is time to renegotiate the terms of the HVAU.

C&A has also observed a number of inconsistencies in the way in which different groups of Producers are deemed relevant for various processes described in the HVAU, as well as a number of definitional issues that could have a material impact on industry. As an example, the reconciliation of Access revenue with the Ceiling Limit is conducted for a 'group of Access Holders', while allocation of any 'unders and overs' considers only the 'Constrained Coal Customers'. It is not clear whether the 'group of Access Holders' and 'Constrained Coal Customers' could represent different subsets of the total group of Access Holders.

The definitions of 'Constrained Group of Mines' and 'Constrained Network' also appear to be inconsistent with each other. 'Constrained Network' refers to the group of segments bounded by the mine loading points and the Newcastle port that are likely to reach or exceed the economic cost of those segments. Presumably there are many possible combinations of segments that could fulfil this requirement. For example, if the segments of Zone 1 and Zone 2 combined meet the definition of a 'Constrained Network', then so too might the segments solely within Zone 1. By contrast, the definition of 'Constrained Group of Mines' makes reference to the mines in the group of segments that are *most* likely to meet (or exceed by the most amount) the economic cost of those segments. It appears, therefore, that the Constrained Network can refer to a different portion of the network than that defined as forming the Constrained Group of Mines.

There is further difficulty in actually applying the definition of 'Constrained Group of Mines'. C&A considers that the likelihood of a group of mines meeting or exceeding the economic cost of the segments that they use will be materially impacted by ARTC's selection of Access Charges for each Zone. For example, Zone 3 Access Charges are currently set in such a way that Zone 3 mines remain competitive with mines in other Zones. In this situation, ARTC recovers less than the economic cost and therefore Zone 3 mines are *not* considered to be part of the 'Constrained Group of Mines'. By contrast, ARTC could elect to set Access Charges in Zone 3 that would recover the full economic cost from contracted Zone 3 Producers. Although ARTC might argue that these Access Charges would threaten the economic viability of Zone 3 mines, the majority of ARTC's revenue is secured on a take-or-pay basis and therefore in this scenario Zone 3 mines *would* be considered part of the 'Constrained Group of Mines'. Given that the definition is dependent on ARTC's assumptions about Access Charges, C&A considers the 'Constrained Group of Mines' to be an arbitrary designation.

Unfortunately, the 'Constrained Group of Mines' definition is an important one, as Producers are considered to be a 'Constrained Coal Customer' if they form part of the 'Constrained Group of Mines'. It is these Producers who are liable for any unders and the recipients of any overs identified through ARTC's unders and overs accounting processes. The inclusion or exclusion of a Producer from the 'Constrained Group of Mines' will therefore have a material impact on both the individual Producer and others considered to be within the group.

Given the above issues, C&A considers that there is significant uncertainty about the way in which ARTC determines the relevant group of Access Holders, segments, and/or mines when applying the provisions of the HVAU. In the short term, these issues could be solved by greater transparency from ARTC. C&A can appreciate that the outcomes of ARTC's processes might be considered confidential information. Nevertheless, ARTC could describe the general approach that it takes each year to arrive at definitions of 'Constrained Group of Mines', 'Constrained Network' and 'Constrained Coal Customer', as well as the 'Group of Access Holders' referred to in Clause 4.3(a). ARTC could also confirm whether it is feasible for these definitions to refer to different subsets of the system, or if the terms are intended to refer to a common group of Access Holders and their mines. This information would substantially improve the transparency of ARTC's processes in relation to the reconciliation of Access revenue with economic cost and the allocation of any unders or overs to Producers.

In the longer term, C&A considers it appropriate to ensure that these definitions are improved in the renegotiated HVAU to ensure that all parties have certainty about the way in which the provisions will be applied to different groups of Producers.

* * *

Summary of key messages

1. **The lack of transparency around ARTC's processes prevents industry from making informed business and investment decisions.** C&A was unaware of the implications of ARTC's reallocation of revenue from Zone 1 to Zone 3 prior to the release of the ACCC's discussion paper.

2. **Revenue reallocation induces an economic distortion whereby Zone 1 and Zone 2 Producers paid $37m in 2013 for the Zone 1 capacity consumed by Zone 3 Producers.** This impact is material and likely to be impacting the business decisions and competitive position of Producers.

3. **The HVAU does not mandate the reallocation of revenue from Zone 1 to Zone 3, and ARTC would be no worse off if it used an alternative approach.** There is no justification for a process that does not appropriately charge each user for the capacity that they consume.

4. **Failure to appropriately differentiate Access Charges for Zone 1 and Zone 2 has resulted in users of Zone 1 subsidising $19m of the Zone 2 economic cost in 2013.** Again, this is a material impact with no economic justification.

5. **The 'Ceiling Test' does not detect or correct these cross-subsidies because it does not allocate revenue within the Zone in which the capacity was consumed, in contrast to the clear Zone basis for pricing, cost allocation, and determination of investment voting rights.** The 'Ceiling Test' should be conducted by Zone to ensure that all users pay for the cost of the capacity that they consume.

6. **Revenue reallocation and other cross-subsidies are impacting competition within the Hunter Valley coal Producers and could potentially be impacting the global thermal coal market.** Any inequitable allocation of cost to Producers will impact their competitive position. Given current market conditions any impact on the cost curve position of marginal Producers could be driving changes in coal price.

7. **Industry should seek resolution of these economic distortions for both prior and future periods, and ensure that the renegotiated HVAU provides more transparency and prescription.** If possible, retrospective adjustments should be made to prior years, but at a minimum these issues should be resolved in the 2013 Compliance Assessment. Renegotiation of the HVAU provides industry with an opportunity to ensure that economically justified and equitable approaches to setting Access Charges, allocating revenue, reconciling access revenue with the Ceiling Limit and allocating 'unders and overs' are clearly defined for all future periods.

ARTC's revenue allocation processes

For discussion with the ACCC
16 July 2014

APPROVED FOR PUBLICATION

Rio Tinto

C&A has serious concerns about the economic distortions that arise from revenue reallocation and other cross-subsidies

Issues to be discussed

- **C&A is very concerned by the lack of transparency around ARTC's revenue allocation processes**
  - Despite the HVAU being in place for 3 years, C&A had limited understanding of the full implication of ARTC's reallocation of revenue collected in Zone 1 to cover the cost of providing capacity in Zone 3
  - In fact, given ARTC's lack of transparency on these matters, C&A's assessment of the impact of revenue reallocation has relied on internal modelling of throughput and train configuration
- **C&A now has serious concerns about the economic distortions that arise due to revenue reallocation**
  - The net impact on Zone 1 and Zone 2 Producers is estimated to have been ~$37m in 2013
  - There is a risk that the magnitude of the impact could increase in future periods
  - C&A can see no economic justification for ARTC's approach, given it has a viable mechanism for recovering any revenue shortfalls incurred in Zone 3
- **C&A is also concerned that users of Zone 1 may be subsidising users of Zone 2**
  - C&A estimates that only ~$89m of the ~$108m in costs incurred by Zone 2 Producers for their use of the Constrained Network would have been recovered as revenue through Access Charges in 2013
  - This equates to a net impact of ~$19m on other users of Zone 1
- **C&A considers that it is critical to resolve these issues as quickly as possible to ensure that all users pay equitably for the capacity that they consume and encourage efficient investment in the network**
  - There appears to be scope within the provisions of the existing HVAU for ARTC to adopt an alternative approach to revenue collection and allocation which would rectify all of the concerns raised by C&A
  - C&A would argue that changes could be made to the processes used by ARTC for 2013, given that the compliance assessment has not yet been completed

C&A is very concerned by the lack of transparency around ARTC's revenue allocation processes

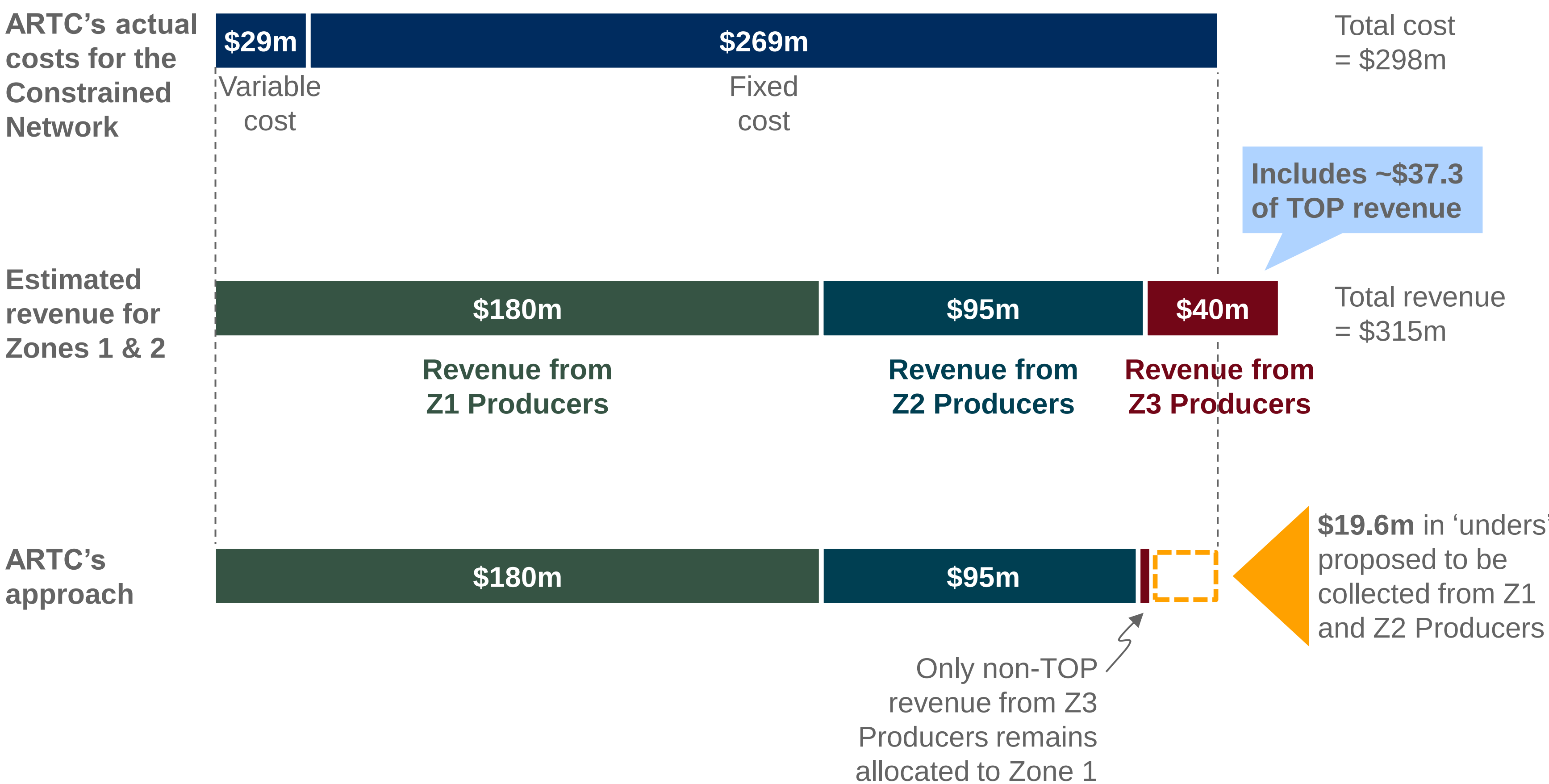
Addressing the ACCC's questions in relation to transparency

- **C&A considers that transparency is an important objective of the HVAU**
  - HVAU Clause 1.2(c) specifically references the objective of transparency:

    "*The intent of the Undertaking is to use transparent and detailed methodologies, principles and processes for determining Access revenue limits, terms and conditions*"
  - Users of the Network can only make informed business decisions when there is complete transparency about the terms of access
- **C&A is concerned that ARTC has not made any attempt to improve industry's understanding of its processes**
  - It is clear from previous submissions that C&A had limited understanding of ARTC's practice of reallocating revenue from Zone 1 to Zone 3
  - For example, arguments about the need to avoid cross-subsidies by appropriately differentiating Access Charges for Zone 3 trains passing through Zone 1 are irrelevant if Zone 1 and 2 Producers actually pay for the entire cost of the Zone 1 capacity that is consumed by Zone 3 Producers
- **Lack of transparency impairs industry's ability to make informed business and investment decisions**
  - In the short term, Producers cannot appropriately budget for below-rail costs if ARTC may retrospectively seek to recover shortfalls that arise due to revenue reallocation
  - In the long term, lack of certainty about below-rail costs make it difficult for Producers to assess investments in new or expanded operations

C&A has used its internal coal chain model to estimate the contribution of revenue to the 'Constrained Network' by originating Zone

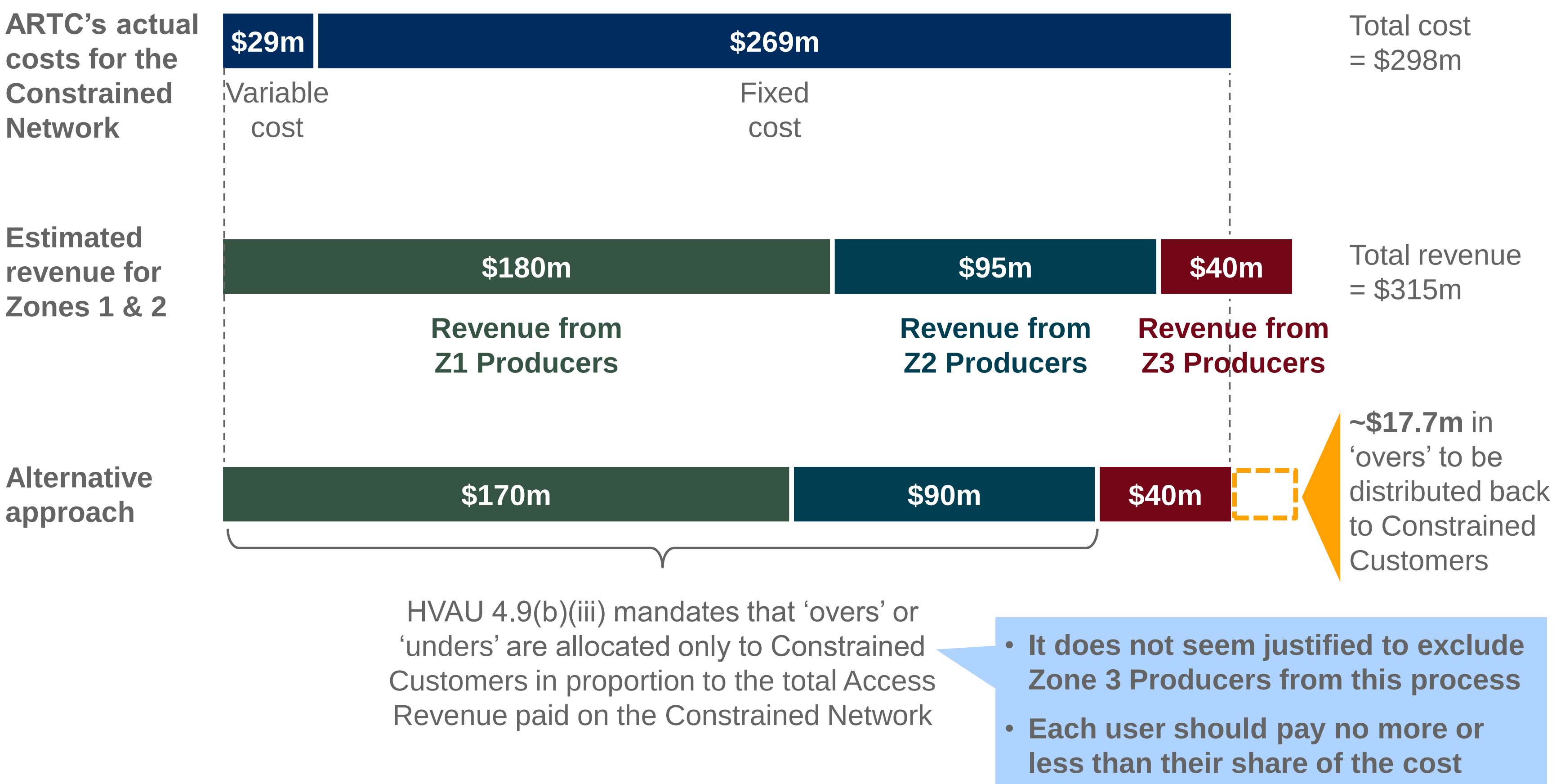
ARTC'S PROPOSED ANNUAL RECONCILIATION FOR THE CONSTRAINED NETWORK, 2013



Source: HVAU; ACCC discussion paper for the 'Revenue allocation review'; ACCC consultation paper for the 2013 compliance assessment; C&A estimates

If ARTC hadn’t transferred revenue from Zone 1 to Zone 3 there would have been ‘overs’, estimated to be $17.7m, to distribute back to Constrained Customers in 2013

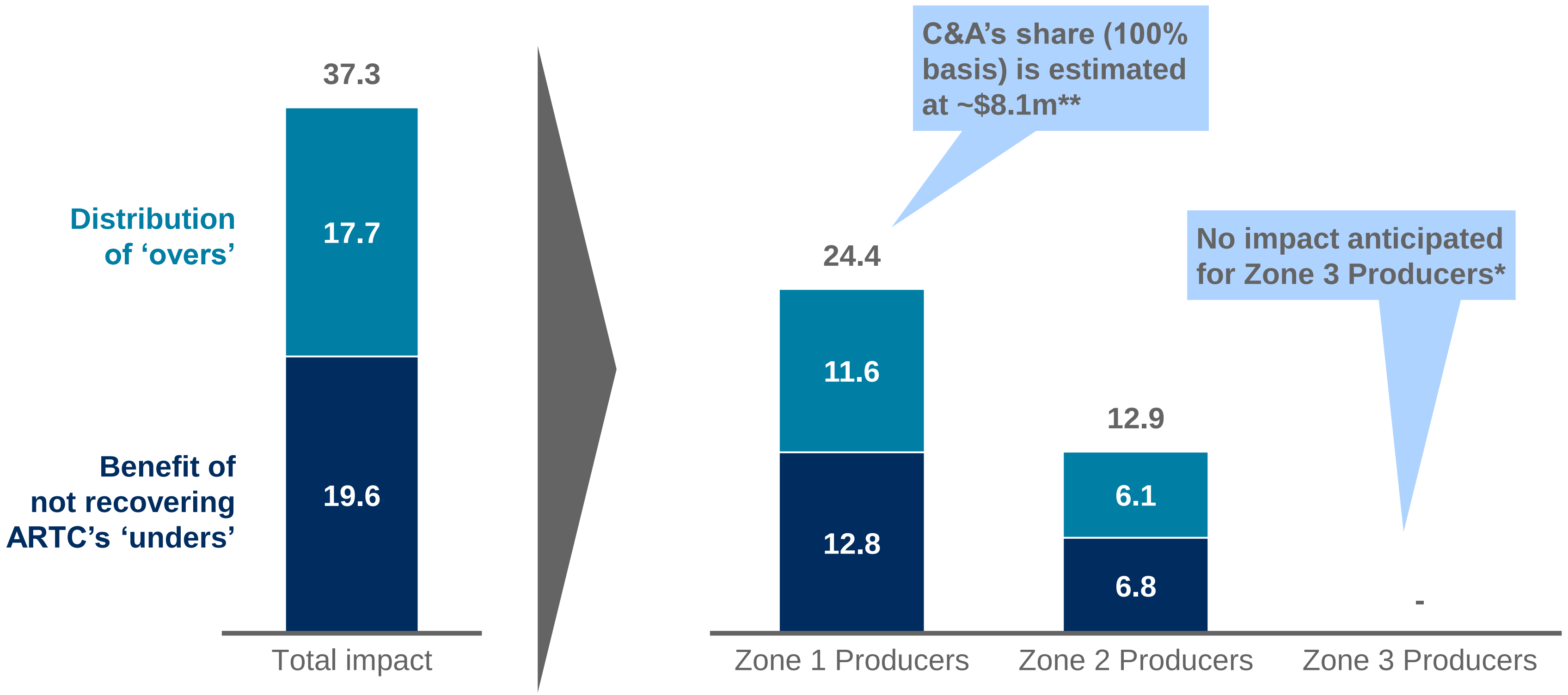
ALTERNATIVE OUTCOME USING AN ECONOMICALLY JUSTIFIED APPROACH, 2013



Source: HVAU; ACCC discussion paper for the ‘Revenue allocation review’; ACCC consultation paper for the 2013 compliance assessment; C&A estimates

Together, $19.5m of unrecovered ‘unders’ and $17.7m of returned ‘overs’ are worth a total of ~$37.3m to Zone 1 and Zone 2 Producers

IMPACT OF FIXING ARTC’S APPROACH TO REVENUE ALLOCATION, 2013
$ millions



* ARTC sets charges that will maximise utilisation of the network, given the economic situation of Zone 3 mines, therefore Zone 3 customers are excluded from the ‘unders and overs accounting’ process and any change to the revenue allocation process should not impact ARTC’s assessment of Zone 3 Producer ability to pay

** HVAU 4.9(b)(iii) mandates the allocation of ‘unders or overs’ in proportion to the total *Access Revenue* received in the entire Constrained Zone

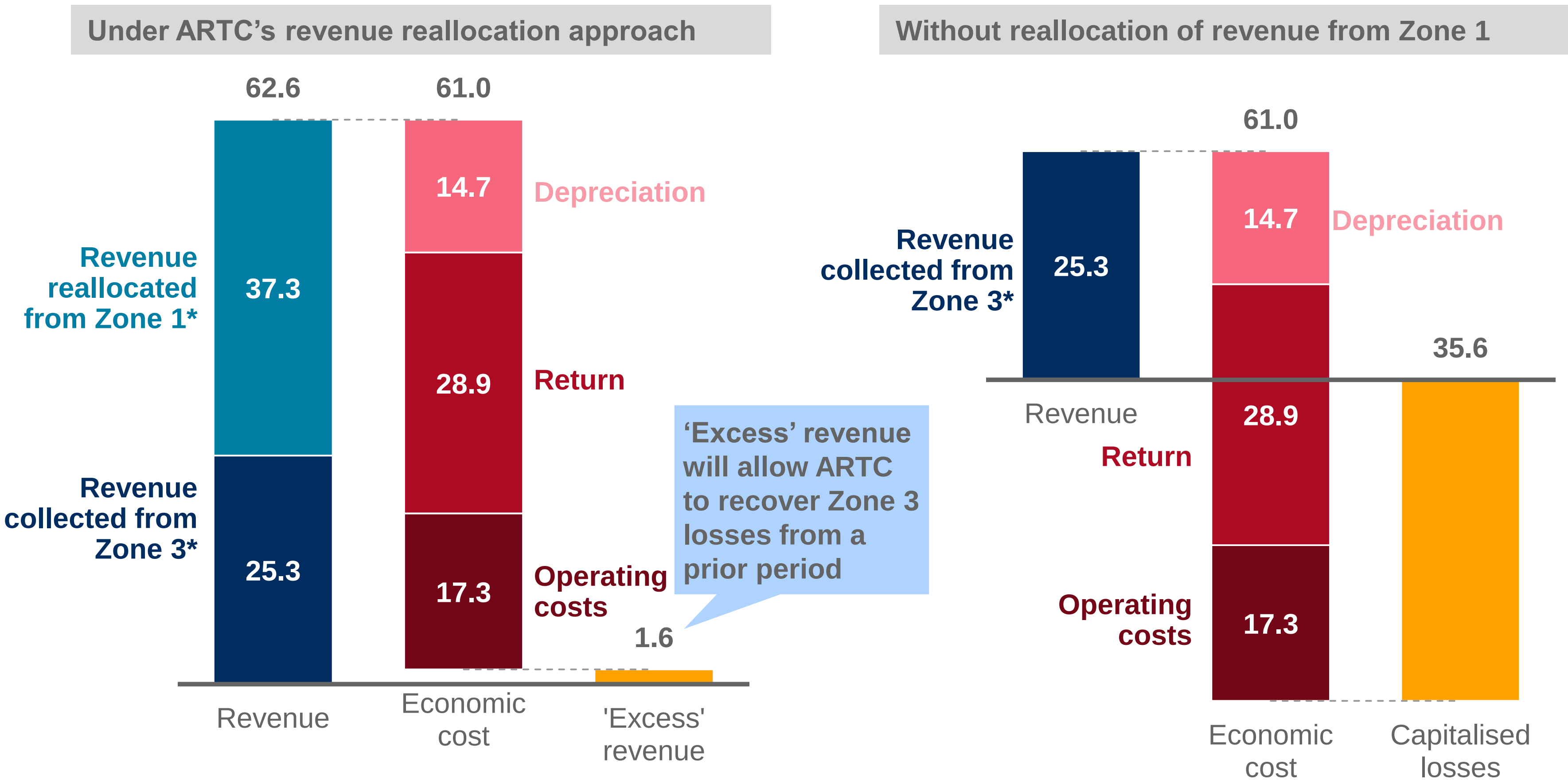
Source: HVAU; ACCC discussion paper for the ‘Revenue allocation review’; ACCC consultation paper for the 2013 compliance assessment; C&A estimates

Rio Tinto

In the absence of ARTC's reallocation of revenue from Zone 1 to Zone 3, capitalised losses for 2013 would have been ~$35.6m

IMPACT ON ZONE 3 OF ARTC'S REVENUE ALLOCATION APPROACH, 2013

$ millions



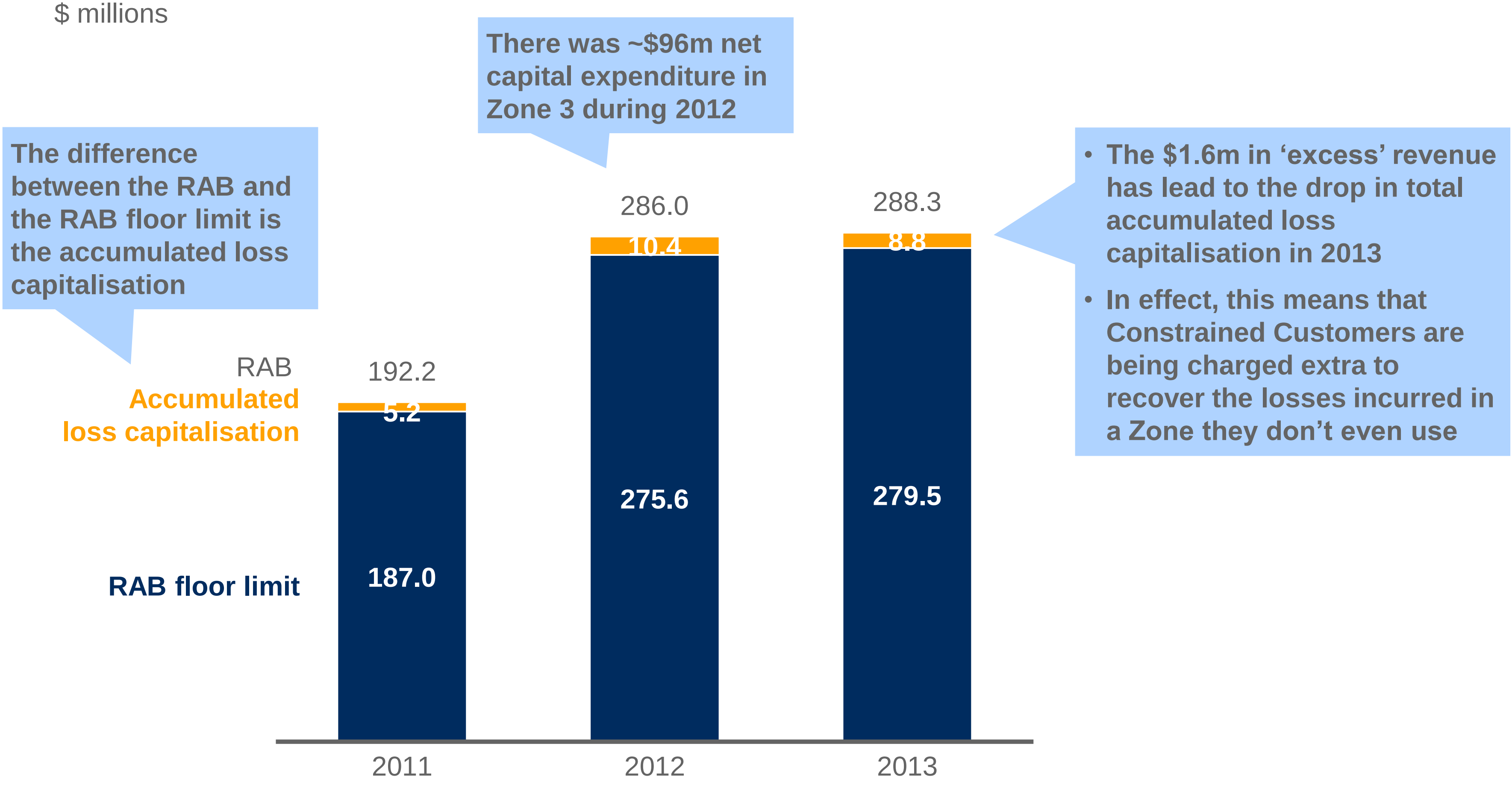
* C&A estimates of revenue by Zone; total revenue has been aligned to the $62.6m reported by ARTC in the compliance submission material for 2013

Source: HVAU; ACCC discussion paper for the 'Revenue allocation review'; ACCC consultation paper for the 2013 compliance assessment; C&A estimates

The over-collection of revenue from Zone 1 and Zone 2 Producers in 2013 would allow ARTC to recover Zone 3 losses from a prior period

ARTC'S LOSS CAPITALISATION

$ millions



Source: ACCC consultation papers for the 2012 and 2013 compliance assessments

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C&A is concerned that the magnitude of the impact of revenue reallocation could increase in future periods

Potential change	Rationale	Impact
Increased cost of providing Zone 1 capacity for Zone 3 Producers	• ARTC forecasts significant additional demand, both contracted and prospective, from Zone 3 Producers • Investment in Zone 1 capacity may be required to support this new demand	• Additional costs of providing Zone 1 capacity to Zone 3 Producers would be paid by Zone 1 and Zone 2 Producers
Increase in magnitude of losses in Zone 3	• Extension of Zone 3 to include the Gap to Turrawan segments will lead to an even greater shortfall in Zone 3	• Greater incentive for ARTC to reallocate revenue from Zone 1 to Zone 3
	• Investment in Zone 3 asset base to accommodate increased demand from Zone 3 Producers	• Greater incentive for ARTC to reallocate revenue from Zone 1 to Zone 3 if investment increases the revenue shortfall in Zone 3

- **C&A is concerned that investment in Zone 3 could provide more scope for ARTC to overcharge users of Zone 1**
- **Under RCG voting rules C&A is unable to object to Zone 3 expansions**

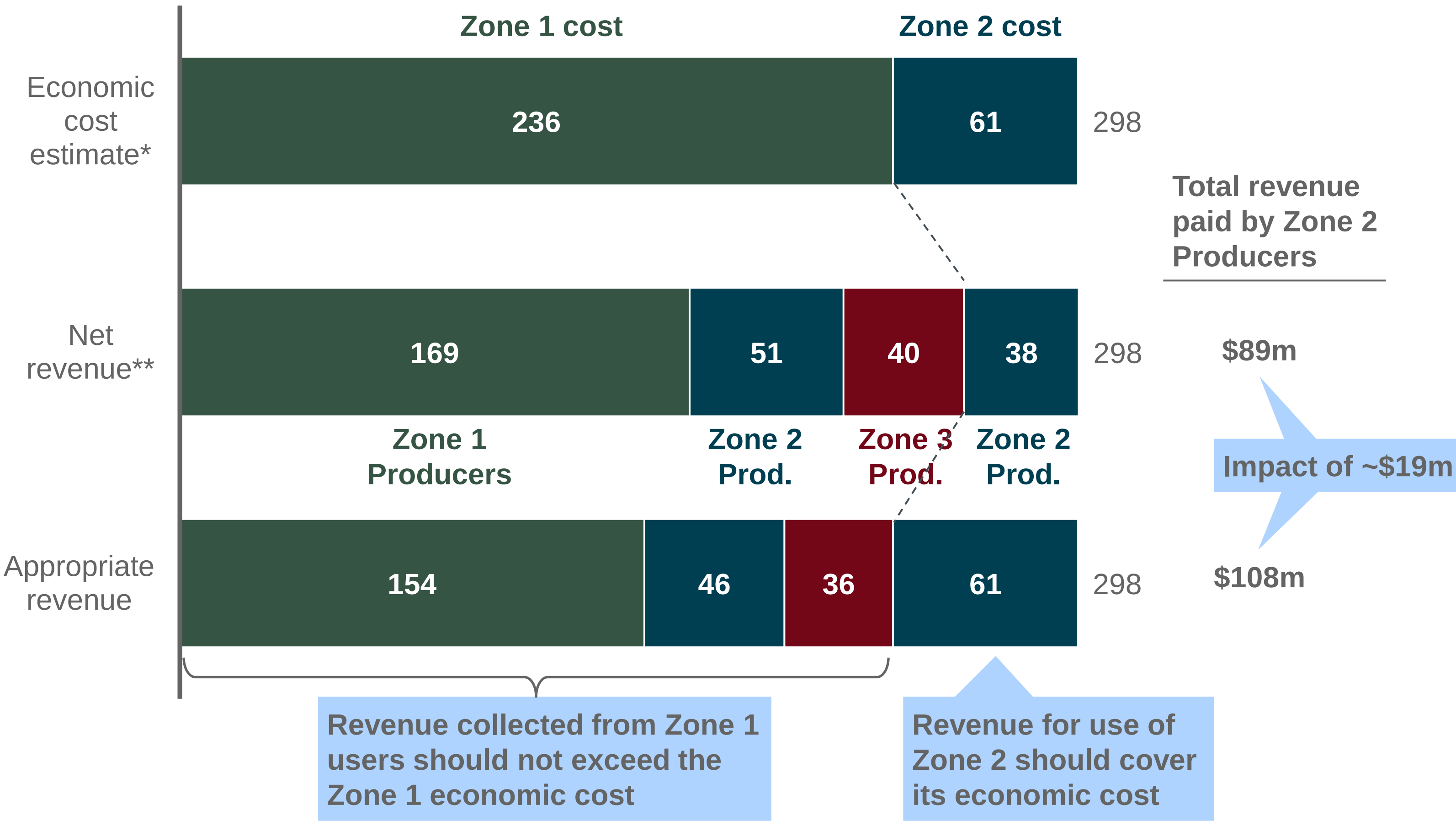
ARTC has a viable mechanism for recovering revenue shortfalls under the current HVAU

- **ARTC is able to capitalise Zone 3 losses into the asset base**
  - Instead of receiving revenue as cash, ARTC is effectively reinvesting the shortfall amount
  - ARTC is then entitled to receive both a return on and a return of the capitalised loss in a future period
- **There is no economic justification for the reallocation of revenue from Zone 1 to Zone 3**
  - Producers in Zone 1 and Zone 2 do not use the Zone 3 assets and should not contribute to their cost
  - ARTC could continue to charge Zone 3 Producers only the Access Charges that they can afford to pay, in order to maximise utilisation of the network
  - All Zone 3 losses can be capitalised and then recovered when demand from Zone 3 increases

Analysis of the impact of ARTC's revenue reallocation has supported C&A's concern that users of Zone 1 have been subsidising users of Zone 2

POTENTIAL CROSS-SUBSIDY OF ZONE 2 COSTS BY ZONE 1 REVENUE, 2013

$ millions



* Total variable cost of ~$29m and total fixed cost of ~$269m; assumes relative split across Zones did not vary from forecast

** Assumes no reallocation of revenue from Zone 1 to Zone 3; note also that 'overs' are only distributed to 'Constrained Customers'

Source: HVAU; ACCC discussion paper for the 'Revenue allocation review'; ACCC consultation paper for the 2013 compliance assessment; C&A estimates

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C&A considers that ARTC has flexibility to adopt a better approach to revenue allocation

Process	Relevant HVAU provisions	Comments
Reconciliation of Access Revenue with the Ceiling Limit*	• Clause 4.3(a) - for Zones 1 and 2, total Access Revenue must not exceed the Economic Cost for those segments which are required on a 'stand alone' basis	• There is no reference to conducting this only for the 'Constrained Network' or for 'Constrained Coal Customers' • It is not clear what 'stand alone' basis means and it is not a defined term
	• Clause 4.3(b) - for Zone 3, Access Revenue must not exceed economic cost if the RAB is equal to or lower than the RAB floor limit	• There is no reference to reallocating revenue collected in Zone 1 to Zone 3 • Allows for recovery of prior period losses
Unders and overs accounting	• Clause 4.9(a) – the outcome of the reconciliation of Access Revenue with the Ceiling Limit	• There is no reference to conducting this process only for Constrained Coal Customers
	• Clause 4.9(b)(iii) – unders and overs to be allocated to Constrained Coal Customers	• It does not seem justified to exclude Zone 3 Producers from this process – all users should pay no more or less than their share of the economic cost
Compliance Assessment	• Clause 4.10(d)(ii) – ACCC must determine whether ARTC's reconciliation calculations are in accordance with the HVAU	• Again, this provision does not specify how the reconciliation should be performed
	• Clause 4.10(d)(v) – ARTC will act in accordance with the ACCC determination	• If the ACCC considers that revenue reallocation is not in accordance with the HVAU, then the ARTC must accept this decision

* ARTC refers to the 'Ceiling Test': this is not a defined term in the HVAU but is referred to in Schedule G (describes information to be provided for the compliance assessment)

Source: HVAU

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In summary, issues with ARTC's revenue collection and allocation processes could be promptly resolved

- **ARTC should cease reallocating revenue from Zone 1 to Zone 3**
  - ARTC to make a revised submission for the ACCC's 2013 Annual Compliance Assessment
    - No reallocation of revenue from Zone 1 to Zone 3
    - Return of 'overs' from the Constrained Network
    - Capitalisation of losses incurred in Zone 3
  - ARTC to ensure this approach is applied in all future periods
- **There should be no cross-subsidy between Zones 1 and 2**
  - Access Charges for a given Zone should be set to ensure recovery of the full economic cost from the users of that Zone*
  - Ideally, the reconciliation of Access revenue with economic cost should be done individually for Zone 1 and Zone 2

* C&A recognises that Access Charges have already been set for 2014, so this solution would only be effective from 2015 onwards