
Sucrogen (Herbert) Pty Ltd

Submission in response to draft recommendation

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1 Introduction and executive summary

- 1.1 Sucrogen supports the NCC's conclusion in its draft recommendation that the Tram Service not be declared.
- 1.2 Sucrogen makes the following further submissions:

Public Interest

- (a) Declaration of the Tram Service is not in the public interest because:
 - (i) of the magnitude of costs that would arise as a result of declaration; and
 - (ii) declaration is unlikely to result in any material increase in output;
- (b) This submission and its supporting expert reports conclude that, on the basis of a cost–benefit analysis, using a “with and without” approach, and having regard to all of the likely benefits and costs, access will result in a **net decrease** in social welfare of **\$19.2m per annum (\$383.7m in NPV)** over the 20 year term of the potential declaration.
- (c) Declaration is likely to result in the closure of one Mill in the district which, although difficult to fully quantify in dollar value terms, nevertheless carries significant social and economic costs for the community in the region (including as a result of potential stranding of cane) and for the owner of the relevant Mill and their shareholders.
- (d) Sucrogen submits that the cost benefit analysis and the other adverse consequence identified, establish that the granting of access is likely to be contrary to the public interest.

Use of Land

- (e) The Council should refuse to recommend declaration of the Tram Service because of the terms under which Sucrogen is permitted to use the land over which the Tram Network runs.

Uneconomic to duplicate

- (f) Consistent with the Council's guide in respect of declaration applications and consistent with section 44G of the Trade Practices Act, it is appropriate for the Council to consider, in the context of criterion (c), whether other types of facilities (in the case road) can provide the service provided by the Tram Network.
- 1.3 This submission should be read with Sucrogen's earlier submission. Unless otherwise indicated, Sucrogen's uses the same terms in this submission as it did in its earlier submission.
 - 1.4 In this submission, Sucrogen has tried to avoid repeating arguments made in its earlier submission to the Council. This submission therefore does not address all aspects of the Council's draft recommendation.

- 1.5 Sucrogen, in giving this submission, should not be construed as agreeing with aspects of the draft recommendation that the Council decided adversely to it or contrary to its submissions.
- 1.6 Sucrogen has commissioned expert reports from Synergies Economic Consulting Pty Ltd (**Synergies**) and through Synergies, Aurecon Australia Pty Ltd (**Aurecon**) in responding to the Council's draft recommendation. Their reports are attached to this submission. Unless otherwise stated in this submission, Sucrogen agrees with and adopts the contents of those expert reports.

2 Costs of declaration

- 2.1 In its draft recommendation, the Council specifically sought information as to "the magnitude and frequency of the likely costs" if the Tram Service was declared.¹
- 2.2 Sucrogen provides the following information to support the costs that it would face if the Service was declared.

Costs of access disputes

- 2.3 If the Tram Service is declared, Sucrogen submits that it is likely that hard-fought, complex access disputes will arise.
- 2.4 First, there is a threshold issue about whether NQBE (or any other access seeker) is entitled to access at all.² As the Council recognises,³ this is likely to occur in the context of Sucrogen's protected entitlement for providing the service to itself,⁴ at least for the time when NQBE (or any other access seeker who operates a sugar mill) most wants access to the Tram Network.⁵
- 2.5 Secondly, even if NQBE (or another access seeker) was to succeed on the threshold issue, the terms of access would need to be negotiated or determined. In the draft recommendation, the Council wrote:⁶

The Council accepts that because of the coordination and logistics inherent in the Network's operations, formulating any initial terms and conditions of access may be more complex than for other railways where there is minimal likelihood of crop deterioration, but the issues peculiar here to a cane railway do not appear to be insurmountable.

¹ Draft recommendation, par 10.31(b).

² See *Sydney Airport Corporation Ltd v Australian Competition Tribunal* (2006) 155 FCR 124 at 147 [82] per French, Finn, and Allsop JJ; [2006] FCAFC 146.

³ Draft recommendation, par 10.21.

⁴ *Trade Practices Act 1974* (Cth) s 44W(1)(a). See *BHP Billiton Iron Ore Pty Ltd v National Competition Council* (2008) 236 CLR 145 at 156–157 [18]–[19] per Gummow, Kirby, Hayne, Heydon, Crennan, and Kiefel JJ; [2008] HCA 45.

⁵ See draft recommendation, pars 6.21–6.25.

⁶ Draft recommendation, par 10.23.

- 2.6 The Council has suggested that the terms of access may “provide for penalties that are designed to foster cooperative sharing of the Network”.⁷
- 2.7 Though the issues may not be insurmountable, they are, as the Council has accepted, complex and, as far as Sucrogen is aware, novel given that the unique nature of a dedicated cane railway as opposed to a general freight or bulk haulage railway.
- 2.8 To put the complexity of the terms and conditions of access into context, the QR Network access agreements that are currently being considered by the Queensland Competition Authority are over 150 pages long (including all schedules).⁸
- 2.9 Sucrogen estimates that its costs of an access dispute, bearing in mind the matters set out above, are likely to be at least \$1.5m for each party.⁹
- 2.10 Additionally, there is the real prospect that there will be several access disputes during the duration of the declaration. For example, in relation to the Sydney sewage network declaration, the relevant service was declared for 50 years,¹⁰ but the ACCC’s access determination was for 20 years.¹¹

Costs of losing Transport Infrastructure Act exemption

- 2.11 In its draft recommendation, the Council accepted that the loss of Sucrogen’s exemption under the *Transport Infrastructure Act 1994* (Qld) “may expose Sucrogen to increased costs and compliance”.¹²
- 2.12 In response to the Council’s request for additional information about the magnitude and frequency of likely costs,¹³ Sucrogen has engaged consultants to quantify the likely costs that it would be exposed to if it became subject to the *Transport Infrastructure Act*. **Attachment A** to this submission is a report from Synergies setting out the nature of the likely costs and benefits associated with declaration. **Attachment B** to this submission is a report from Aurecon which details the likely costs associated with compliance by Sucrogen with the *Transport Infrastructure Act*.

⁷ Draft recommendation, par 10.20. Sucrogen also notes that it cannot be compelled to provide access on terms which displace its own legitimate business requirements for the cane railway.

⁸ Available at <<http://www.qca.org.au/rail/2010-DAU/QR2010DAU.php>>.

⁹ Synergies estimates these costs to be \$2m for each party: see Synergies report, section 6.4.1.

¹⁰ *Application by Services Sydney Pty Ltd* (2005) 227 ALR 140; (2006) ATPR ¶42-099; [2005] ACompT 5.

¹¹ *Access dispute between Services Sydney Pty Ltd and Sydney Water Corporation: Arbitration report*, section 9 (pages 79–80), available at <<http://www.accc.gov.au/content/index.phtml/itemId/793015/fromItemId/3737>>.

¹² Draft recommendation, par 10.24.

¹³ Draft recommendation, par 10.31(b).

- 2.13 Synergies' report identifies a range of costs associated with declaration including:
- (a) safety-related costs;
 - (b) rail access-related costs;
 - (c) above rail costs; and
 - (d) new mill and cogeneration costs.
- 2.14 The Synergies report is supplemented by the Aurecon report which identifies in more detail the types and likely quantum of compliance costs associated with loss of the exemption under the *Transport Infrastructure Act*. These costs have been identified to include:
- (a) rail management accreditation costs including development and implementation of various systems required for accreditation and payment of an annual level to the regulator;
 - (b) insurance costs;
 - (c) the costs of development and compliance with a safety management system;
 - (d) infrastructure and system upgrades including signalling upgrades, train control and monitoring system developments and the cost of new communication systems; and
 - (e) the development of on-going maintenance and reinvestment regimes and the development of access documentation and agreements.
- 2.15 The Aurecon report estimates the initial capital costs of compliance with the requirements of the *Transport Infrastructure Act* to be **\$10.68m** and the annual on-going costs to be **\$7.65m**.
- 2.16 Synergies undertook a cost benefit analysis having regard to all of the identifiable costs and benefits on a "with and without" basis and in partial reliance on the costs identified by the Aurecon report.¹⁴ Based on that cost benefit analysis, Synergies estimates that declaration would result in a net **decrease** in social welfare of approximately **\$383.7m** in net present value terms over a 20 year period, at the rate of approximately **\$19.2m per annum**.
- 2.17 The Council noted, in relation to the costs to Sucrogen of losing its current exemption under the *Transport Infrastructure Act*.¹⁵

The Council accepts that declaration and access may expose Sucrogen to increased costs and compliance should a request for access be made to transport anything other than sugarcane. However, if this occurs the Council considers that it is something that

¹⁴ See Synergies report, chapter 6 of .

¹⁵ Draft recommendation, par 10.24.

Sucrogen may be compensated for in the access pricing. The regulatory burden thereby being passed onto the access seeker.

- 2.18 Sucrogen submits that this raises two issues.
- 2.19 **First**, the costs are likely to be disproportionate for many access seekers (eg an access seeker who only sought access to the Tram Network outside the sugar milling season).¹⁶ The higher these costs are—and they are likely to be high (see paragraph 2.15 above)—the more attractive road transport is for access seekers, losing the potential benefits of using rail transport instead of road transport.¹⁷
- 2.20 **Secondly**, Sucrogen notes that passing on the regulatory burden to an access seeker is only a solution if there is an access seeker. If declaration imposes a regulatory burden on Sucrogen, but there is no access seeker, then that cost must be borne by Sucrogen. This is a regulatory failure that the Council should avoid.
- 2.21 Sucrogen is concerned that the mere fact of declaration—which permits any access seeker (including access seekers who do not own or operate a sugar mill) to seek access to the Tram Network¹⁸—would put its exemption in jeopardy. In essence, Sucrogen is concerned that, if the Tram Service is declared, the Tram Network will be regulated as if it was a general purpose freight railway.
- 2.22 Sucrogen is also concerned that higher regulatory costs will arise from declaration in respect of the transportation of its own crop requirements and not just those applicable to the access seeker's access. The passing on of those regulatory costs is likely to be significantly more difficult and may not be achieved.

3 There is no likelihood of increased output

- 3.1 The Council specifically sought additional information as to “the level, timing and likelihood of additional output from the processing of sugarcane in the Herbert River district”.¹⁹

Increase in output

- 3.2 Sucrogen submits that there is no likelihood of any material increase in output from the processing of sugarcane of the Herbert River district as a result of declaration or access being granted.
- 3.3 As the Council appears to have accepted, the relevant markets are geographically limited to the Herbert River region.²⁰ This is principally because

¹⁶ Cf draft recommendation, par 10.29.

¹⁷ See draft recommendation, par 10.14.

¹⁸ See, eg, draft recommendation, par 5.50.

¹⁹ Draft recommendation, par 10.31(a).

of CCS deterioration reasons. Sucrogen agrees, as the Council accepts, that access to the Tram Network (or the construction of NQBE's Factory) will not lead to significant additional land being devoted to sugarcane production.²¹

3.4 As the Council also concluded:²²

an increase in competition in the relevant dependent market (higher cane prices flowing to Growers) appears, at least in the short to medium term, to be largely derived from a transfer of income from millers to growers rather than from significantly increased output. Such transfers do not represent a benefit to the public which should be considered in assessing whether criterion (f) is satisfied.

3.5 Sucrogen agrees with that assessment. However, Sucrogen also questions the degree to which declaration would lead to **any** increase in competition. In this regard Sucrogen refers the Council to sections 3.1.1 and 6.4.3 of the Synergies report.

3.6 Sucrogen also notes and agrees with the Council's view that, given the output of sugarcane is unlikely to increase, the current volume of sugarcane being processed by two mills will be spread over three and that this is likely to lead to inefficient operation of at least one mill and an overall reduction in processing efficiency in the region.²³

3.7 In this regard Sucrogen refers to **Confidential Attachment C** to this submission which analyses the likely impact of access on the continued operation of three mills in the Herbert River district. Sucrogen concludes that access is likely to lead to the eventual closure of one of the three mills. Whilst the impact of such a closure is difficult to fully quantify in dollar terms, it would have a serious and significant negative impact in economic and social terms for the community in the region and for the affected mill owner and its shareholders.

Energy canes

3.8 In its draft recommendation, the Council discounted "any potential increased tonnage from energy cane production".²⁴ Sucrogen also considers this approach to be correct. Sucrogen has and continues to fund research²⁵ into so-called "high energy" canes and therefore can confirm that the purported

²⁰ Draft recommendation, pars 5.19–5.20.

²¹ Draft recommendation, par 6.15.

²² Draft recommendation, par 10.13.

²³ Draft recommendation, par 10.27.

²⁴ Draft recommendation, par 6.20.

²⁵ Sucrogen has contributed significant funding and in-kind contributions as a participant in the Sugar Research Co-operative Research Centre which, amongst other matters, has conducted research into the development and characteristics of high energy canes.

benefits of energy canes come at a cost: their increased fibre content²⁶ means there is relatively less sugar that can be milled from them. In essence, they are zero-sum: the increase in fibre comes with a decrease in sugar.

- 3.9 In any event, any additional tonnage of cane made available through the development of energy canes, or related energy generation opportunity, is equally open for Sucrogen to exploit. Sucrogen has and will continue to monitor economic opportunities offered by any future developments in energy canes.
- 3.10 Sucrogen agrees with the Council's determination that access to the Tram Service will not affect whether (and if so, when) energy canes are introduced to the Herbert River region.²⁷

Electricity market

- 3.11 As identified in the draft recommendation, the Council was "not satisfied that access will promote a material increase in competition in the dependent electricity market".²⁸
- 3.12 NQBE's submission claims that their development will produce 50 to 55 MW of electricity generation capacity.²⁹
- 3.13 Sucrogen has already embarked on a programme of increasing the cogeneration capacity of its Herbert River mills. Stage 1 of the programme to install a 19MW cogeneration plant at the Victoria Mill for a cost of \$24 million was recently approved. This project will be commissioned at the commencement of the 2011 crushing season and will increase export electricity generation by 12MW. Sucrogen has a further two stages of development in cogeneration capacity (19MW and 38MW of generation respectively) under active consideration in the Herbert region.
- 3.14 All cogeneration technologies available to NQBE are similarly available to Sucrogen, as the technology is mature and is now routinely implemented worldwide in the sugar industry.
- 3.15 In the Synergies report³⁰, Synergies identify that the additional electricity export sales that may be generated as a result of the NQBE proposal are equally attributable to Sucrogen's base case and therefore there is no net benefit from potential increases in electricity generation from declaration of the Tram Service.

²⁶ See draft recommendation, par 6.18 n 22.

²⁷ Draft recommendation, par 6.20.

²⁸ Draft recommendation, par 5.43.

²⁹ NQBE Submission par 8.79.

³⁰ See Synergies report, section 6.3.1.

Conclusion on criterion (f)

- 3.16 The benefits which might flow from access are marginal. There is no material increase in output and to the extent that it might be argued that access will result in increased competition for cane, this will be by way of transfer between millers, rather than any increase in production or sales.
- 3.17 By contrast, the costs are readily identifiable and significant in nature. They have been quantified using a cost benefit analysis approach at a net present value of \$383.7m over a 20 year term. There are other costs like those that would flow from the likely closure of a mill, that cannot be easily quantified but which have significant adverse economic and social consequences (including the possible stranding of cane) for the region and beyond.
- 3.18 In the circumstances Sucrogen submits that the Council cannot be satisfied that the granting of access would not be contrary to the public interest.

4 Use of land - The Easement Issue

- 4.1 Sucrogen disagrees with the Council's analysis in relation to the effect of the terms of the Tram Network Easements (which, for convenience, Sucrogen refers to as the **Easement Issue**).³¹
- 4.2 In its draft recommendation, the Council cites the Tribunal's decision in the Sydney sewage network declaration matter to support its position that "third party rights and regulatory requirements may be relevant to the Council's determination of criterion (a) where they present an insurmountable obstacle to or effective prohibition on access."³²
- 4.3 In that decision, the Tribunal nonetheless accepted:³³
- there must be some real prospect of entry into the dependent market within a reasonable time for competition to be promoted.*
- 4.4 Sucrogen submits that for the reasons set out in its earlier submission—of which the Easement Issue is one—there is no real prospect of NQBE (or any other access seeker) entering into any of the dependent markets. Sucrogen notes that the Council appears to have some concerns about whether, if the Tram Service is declared, there will be a new sugar mill in the Herbert River region.³⁴

³¹ Draft recommendation, pars 5.54–5.57.

³² Draft recommendation, par 5.55, citing *Application by Services Sydney Pty Ltd* (2005) 227 ALR 140 at 173 [136], 178 [158] (Gyles J, B Keane, Dr J Walker); (2006) ATPR ¶42-099; [2005] ACompT 8.

³³ (2005) 227 ALR 140 at 173 [136].

³⁴ See draft recommendation, par 11.7 ("access **may** result in the entry of a new sugar mill operator in the Herbert River district") (emphasis added).

- 4.5 Further, in that decision, the applicant for declaration (and prospective access seeker) “argued that none of the obstacles were insurmountable”.³⁵ In contrast, however, in this application, the applicant has effectively conceded this point. In its application for declaration, NQBE wrote (emphasis added):³⁶

*The extensiveness of the Tram Network is such that [requiring NQBE to obtain easements and other regulatory approvals to pass through land owned by cane growers, third parties and publicly owned land] would be **virtually impossible, or prohibitively expensive** ...*

- 4.6 NQBE also stated that the costs of compensation to landowners and compliance with laws would be “prohibitive”.³⁷
- 4.7 Sucrogen therefore submits that, on NQBE’s own submissions, the Easement Issue is an insurmountable barrier to NQBE’s use of the Tram Service. At the least, Sucrogen submits that the Council cannot be satisfied that there is a “real prospect of entry ... within a reasonable time” by NQBE into any dependent market.
- 4.8 The Council wrote:³⁸

Changing the identity of the owner of the trains using the land pursuant to a Network Easement and the mill to and from which those trains travel (assuming that such changes are in fact necessary) cannot be said to amount to fundamental changes to the nature and scope of the land owners’ property rights. The Council considers that the specifics of access may be addressed through negotiation between the parties or arbitration by the ACCC.

- 4.9 First, Sucrogen notes that land owners that have granted sugar millers easement rights in the past, have largely done so because those land owners have an on-going commercial relationship with miller (ie the supply of sugarcane). By contrast, Sucrogen submits that a situation in which the land owner is being asked to permit an access seeker, with whom the land owner has no commercial relationship, to run trains carrying any types of goods for any purpose, is likely to be viewed by the land owner as a significant, if not fundamental, change to the nature and scope of the land owners’ property rights.
- 4.10 However, even if it is accepted that an access seeker running their own trains over the Tram Network is not a “fundamental change[] to the nature and scope of the land owners’ property rights”, it is nonetheless not permitted by the existing Tram Network Easements.

³⁵ (2005) 227 ALR 140 at 177 [157].

³⁶ Application, par 7.12.

³⁷ Application, par 7.14.

³⁸ Draft recommendation, par 5.55.

- 4.11 For the reasons set out in its earlier submissions—with which the Council does not appear to disagree—Sucrogen cannot legally permit NQBE (or any other access seeker) to access the land over which the Tram Network passes. Because of this, the ACCC cannot, in an access determination, require Sucrogen to permit access. Sucrogen is not aware of any legal way for an access seeker to rely on Sucrogen’s rights of access and not separately negotiate rights of access with individual land owners.
- 4.12 The Council wrote that an access seeker may be able to avail themselves of the land access provisions contained in the *Sugar Industry Act 1999* (Qld). However, Sucrogen notes:
- (a) this avenue is only available for access seekers that are sugar mill owners, and does not assist other access seekers; and
 - (b) use of the *Sugar Industry Act* requires the payment of compensation to land owners,³⁹ which NQBE describes in its application as “prohibitive”.⁴⁰
- 4.13 The Council wrote:⁴¹
- The Council considers that to find the terms of the Network Easements are an insurmountable obstacle to or effective prohibition on access would risk frustrating the purposes of Part IIIA as it would allow infrastructure owners to avoid declaration by contractual agreement.*
- 4.14 Sucrogen notes that the terms of access to the land over which the Tram Network runs is a product of a long history. It is likely to be unique to cane railways, which, as set out in Sucrogen’s earlier submission, are special-purpose networks.
- 4.15 The position in relation to land for general purpose rail networks are likely to be significantly different, and provide less of a barrier to access seekers (if any barrier at all), for two principal reasons:
- (a) First, the railway is likely to be run over land with a less restrictive title than an easement or a right of user.⁴²
 - (b) Secondly, there are likely to be significantly fewer land owners with which an access seeker must negotiate. There may only be one land owner, the relevant State or Territory, which is unlikely to be obstructionist.
- 4.16 Recognising their unique historical development, cane railways have been given a special position under Queensland legislation. One of the special

³⁹ *Sugar Industry Act 1999* (Qld) s 68.

⁴⁰ Application, par 7.14.

⁴¹ Draft recommendation, par 5.55.

⁴² For example, the position in relation to the land over which the Queensland Rail network runs are significantly different: see eg *Transport Infrastructure Act 1994* (Qld) chapter 7, part 7.

concessions to cane railways is the right of access contained in the *Sugar Industry Act* (and predecessor legislation). This right of access is not generally available: it is available only for sugar mill owners in Queensland. A determination by the Council of the Easement Issue consistent with Sucrogen's submissions would not be of general application.

- 4.17 It is open to debate whether, absent the historical development of the Tram Network, and applicable Queensland legislation, a firm would commercially decide to place an asset with a replacement value of over \$250m⁴³ on land on which it has no more than a statutory right of access or an easement (as opposed, for example, to freehold title or perpetual leases). Sucrogen submits this further underscores that the Easement Issue is of extremely limited application.
- 4.18 In any event, the Council in its recommendation (and the Minister in his decision) cannot by decree, change the effect of Part IIIA of the *Trade Practices Act*. Even if the Council is concerned that in some circumstances (which Sucrogen submits are unlikely to occur outside the context of cane railways) a facility owner can "avoid declaration by contractual agreement", this is a consequence of the operation of Part IIIA as it is currently drafted.

5 Uneconomic to duplicate

- 5.1 The Council concluded in its draft recommendation that Sucrogen's original submissions on the substitutability of road for rail in the context of criterion (b) were "misconceived". The Council found this to be the case on the basis that, in its view, it is necessary to "focus on the Service that has been applied for" and that the criterion therefore required an assessment of whether other rail networks could provide the service.⁴⁴
- 5.2 In response, Sucrogen asks the Council to note the comments of Synergies in Chapter 4 of its report.
- 5.3 Sucrogen also notes that in the Council's publication "*Declaration of Services under Part IIIA of the Trade Practices Act: A guide*",⁴⁵ in discussing criterion (b) and comparing it to the Gas Code (and Gas Law) provisions, the Council states⁴⁶:

The use of the word "pipeline" in the then Gas Code ... precludes the Council from considering whether a facility other than a pipeline could provide the services provided by the pipeline that is the subject of the application for coverage ... The declaration provisions of s 44G of the TPA are broader in that they contemplate a consideration of whether

⁴³ See draft recommendation, par 7.5(a).

⁴⁴ Draft Determination, paragraphs 6.10 to 6.12.

⁴⁵ Available at <http://www.ncc.gov.au/images/uploads/Declaration_Guide.pdf>.

⁴⁶ *Declaration of Services under Part IIIA of the Trade Practices Act: A guide* (2009), par 4.7 (page 46).

other types of facilities could provide the service provided by the facility that is the subject of the application for declaration. In this sense, criterion (b) is technology neutral.

- 5.4 Sucrogen submits that the Council's Guide on this issue is a correct statement as to the legal requirements and breadth of section 44G of the *Trade Practices Act*. It is for that reason that Sucrogen submits that an assessment of the availability of road transport as an alternative to rail transport to provide the service, is entirely appropriate and in this case, particularly warranted.
- 5.5 For all the reasons detailed in Sucrogen's original submission and supporting expert report to the Council, road transport is a viable and economically justified alternative for provision of the service. In the circumstances, Sucrogen maintains that the Council cannot be satisfied as to criterion (b).

6 Conclusion

- 6.1 For the reasons set out in this submission and Sucrogen's earlier submission to the Council, Sucrogen submits that the Council should recommend that the Tram Service not be declared.

Attachment A

Synergies report



Herbert River Tramway declaration application

Submission in response to NCC's draft recommendation

July 2010
Synergies Economic Consulting Pty Ltd
www.synergies.com.au

Disclaimer

Synergies Economic Consulting (Synergies) has prepared this advice exclusively for the use of the party or parties specified in the report (the client) and for the purposes specified in the report. The report is supplied in good faith and reflects the knowledge, expertise and experience of the consultants involved. Synergies accepts no responsibility whatsoever for any loss suffered by any person taking action or refraining from taking action as a result of reliance on the report, other than the client.

In conducting the analysis in the report Synergies has used information available at the date of publication, noting that the intention of this work is to provide material relevant to the development of policy rather than definitive guidance as to the appropriate level of pricing to be specified for particular circumstance.

Executive Summary

Synergies supports the National Competition Council's (NCC's) draft recommendation not to declare certain specified services of the Herbert River Tramway for access purposes and strongly agree that there is unlikely to be a net public benefit from declaration.

The purpose of this submission is to address a number of issues raised in the NCC's draft recommendation, including undertaking a social cost benefit analysis of the likely economic impacts if the Herbert River Tramway were to be declared. This analysis has been prepared in response to the NCC's request for further information on the likelihood and level of additional output from the processing of sugarcane in the Herbert River district and the magnitude of the associated costs. It is relevant to the NCC's assessment of the public interest criterion.

Production process

Quoting our first submission, the NCC found that 'it is not inevitable that sugarcane transportation and milling be undertaken by a fully integrated entity' and that transportation may be provided as a separate and distinct function. Consequently, NQBE's proposed use of the tramway for the purpose of crushing sugarcane does not amount to use of Sucrogen's production process.

However, we do not agree with this argument because it does not appear to have any regard to Sucrogen's existing operations in the Herbert River, which entail a highly integrated process whereby a marketable commodity (raw sugar) is created through sequential raw materials receipt, rail transport and milling functions. In our view, this series of operations constitutes a raw sugar production process.

Uneconomical to duplicate

The NCC adopts a very narrow interpretation of the market for the service for which access is being sought, focussing on the below-rail services provided by the tramway network. In contrast, if a broader interpretation is adopted for the relevant service (i.e. a comparable service which is capable of transporting harvested sugarcane to crushing mills in a timely manner), we consider that road is able to compete with rail. Evidence from elsewhere within the sugar industry in Australia and overseas supports the broader interpretation of the market for the service.

In our view, the NCC's draft recommendation does not present sufficient evidence to justify its conclusion that road does not represent a viable alternative to the tramway network.

National significance

We fully support the NCC's analysis and draft recommendation that the national significance test is not satisfied in relation to the Herbert River Tramway.

We consider this criterion to be one of the most important in this case because it will have a very important precedent effect as far as the threshold for coverage under Part IIIA is concerned. As the NCC appears to be aware, there is the potential for perverse outcomes to emerge if the national significance criterion threshold is set too low.

Public interest criterion

We have undertaken a social cost benefit analysis which suggests that the economic impacts associated with NQBE gaining access to the Herbert River Tramway are nearly all negative and will not provide any net benefits to stakeholders in the Herbert River district. In other words, declaration of the tramway will decrease economic welfare as the economic costs unequivocally exceed the economic benefits.

Our analysis indicates that the proposed project will result in a net decrease in social welfare in the order of \$383.7 million in NPV terms or \$19.1 million per annum over the 20 year evaluation period. While this estimate is of an order of magnitude rather than precise nature, it clearly indicates that the provision of access to the Herbert River Tramway fails to satisfy the test that it would not be contrary to the public interest.

Table 1 indicates the major cost categories. No material benefits were identified as part of our analysis.

Table 1: NPV estimates by cost category

Item	Net present value estimate
Safety	(\$14.1m)
New entrant connection cost	(\$14.2m)
Augmentation of tramway	(\$8.1m)
Arbitration	(\$5.5m)
Insurance	(\$38.2m)
New sugar mill	(\$400.0m)
Sucrogen co-generation investment	\$150.0m
Above rail rolling stock capital	(\$30.9m)
Additional fuel costs	(\$2.7m)
Mill decommissioning cost	(\$20.0m)
TOTAL NET COST	(\$383.7m)

The NCC has noted that many of the costs we have identified, in particular, rail safety and rail access-related costs would be recoverable by Sucrogen from access seekers through an access tariff. In our view, this may or may not be the case depending on whether a third party actually uses the network and the outcome of the arbitration of an access dispute. However, more importantly, the key message from our analysis is that there will be a very large cost borne by all stakeholders in the Herbert River region if access were to be declared for no apparent offsetting benefit.

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1 Introduction

Synergies supports the NCC's draft recommendation not to declare certain specified services of the Herbert River Tramway for access purposes and strongly agree that there is unlikely to be a net public benefit from declaration.¹ However, we do not agree with all aspects of the NCC's draft recommendation.

As a result, the purpose of our short submission is to address certain issues raised in the NCC's draft recommendation, including responding to the Commission's request for further information on the potential costs and benefits of declaration.

The remaining chapters of this submission are as follows:

- chapter 2 addresses the NCC's assessment of the Herbert River Tramway as part of a production process;
- chapter 3 discusses the NCC's assessment of the promotion of competition criterion; and
- chapter 4 discusses issues surrounding the competition between road and rail transport modes for the haulage of sugarcane in the context of the uneconomical to duplicate criterion;
- chapter 5 discusses the NCC's assessment of the national significance criterion; and
- chapter 6 addresses the NCC's request for further information to be provided in relation to the benefits and costs of declaration in the context of the public interest criterion.

¹ National Competition Council, Herbert River cane railway, Application for declaration of a service by the Herbert River cane railway, Draft Recommendation, 1 June 2010.

2 Production process

In its draft recommendation, the NCC quotes Synergies Report such that 'it is not strictly necessary for the same entity to perform sugarcane crushing and transportation functions', to support its position that the Herbert River Tramway services do not form part of a production process.

In response, we note that our comments about the potential separability of the whole raw sugar production process (from the receipt of sugarcane to its transport to crushing mills for the production of raw sugar) reflected the reality that the transport limb has been separated (using road transport) by a number of Australian mills.

However, NQBE's declaration application related to Sucrogen's Herbert River Tramway and whether or not it is part of a production process. Hence, the NCC's assessment of whether the relevant services form part of a production process should be made based on circumstances in the Herbert River, specifically operations associated with Sucrogen's production of raw sugar.

In this regard, the NCC finds that 'it is not inevitable that sugarcane transportation and milling be undertaken by a fully integrated entity' and that transportation may be provided as a separate and distinct function. Consequently, NQBE's proposed use of the tramway for the purpose of crushing sugarcane does not amount to use of Sucrogen's production process.

However, we do not agree with this argument because it does not appear to have any regard to Sucrogen's existing operations in the Herbert River, which entail a highly integrated process whereby a marketable commodity (raw sugar) is created through sequential raw materials receipt, rail transport and milling functions. In our view, this series of operations constitutes a raw sugar production process.

The key issue then turns on whether NQBE proposes to use this raw sugar production process. This issue was discussed in Sucrogen's first submission to the NCC.

3 Promotion of competition criterion

The NCC's draft recommendation identifies three markets that it considers are the most relevant markets dependent upon the services provided by the Herbert River Tramway:

- market for the acquisition and processing of sugarcane in the Herbert River district;
- market for the national supply of ethanol; and
- market for the wholesale supply of electricity in the NEM.

The NCC identified the market for the service as the market for the use of the below-rail infrastructure comprising the Herbert River Tramway network.

We fully support the NCC's draft recommendations that access would not promote a material increase in competition in the ethanol market or in the wholesale electricity market. However, we have some concerns with aspects of the NCC's draft recommendation on the sugarcane acquisition and processing market, which is contained in the following section.

3.1.1 Promotion of competition in the sugarcane acquisition and processing market

The NCC's draft recommendation was that competition would be promoted in the sugarcane acquisition and processing dependent market, stating 'there is little or no likelihood of competition in the market for sugarcane acquisition and processing without access to the Service'. This promotion in competition was expected to be reflected in innovative sugarcane pricing and increased returns to growers.

As stated in our first submission, we have strong doubts that there would be a material increase in competition in any dependent market due to the declaration of access and hence few, if any, net benefits flowing from access declaration. This issue is also discussed in chapter 6 of this submission, which relates to the assessment of the public interest criterion.

Nature of competition benefits

A key consideration of the NCC in reaching its conclusion in relation to the sugarcane acquisition and processing market was that declaration could potentially result in significant innovation in pricing options for growers. The NCC cited a formula implemented by Mackay Sugar Limited that provides growers with additional revenue shares relating to molasses and electricity production as supporting evidence for this

stance. However, Sucrogen understands that cane suppliers to Mackay Sugar are excluded from receiving additional benefits through cane supply agreements due to Mackay's current large scale co-generation project. In addition, we understand that growers in the Herbert River district are currently provided with a return for molasses production under their current pricing arrangements with Sucrogen.

The NCC also notes that Sucrogen has introduced a 'sophisticated forward pricing system that gives growers some control over the raw sugar price component of the cane payment formula'. This indicates that there is pricing innovation occurring in the absence of the declaration of the Herbert River Tramway. In addition, the NCC's reference to the scope for 'off formula' payments to be made to cane growers in response to alternative land use options is equally relevant to the Herbert River district as discussed in our first submission.

As a result, we consider that the evidence presented by the NCC regarding the scope for further price innovation in the Herbert River district based on experience in sugarcane growing regions where more than one mill owner/operator exists is relatively weak and certainly could not be considered to be material (the necessary competition threshold.)

Moreover, as the NCC recognises, any price innovation that were to occur would most likely entail growers receiving a higher proportion of returns from sugarcane. However, this simply reflects an income transfer between the miller and cane grower, not an efficiency gain that could be attributed to the access declaration. This issue is discussed further in Chapter 6.

Existence of road competition

Another important draft recommendation reached by the NCC in relation to the promotion of competition in the market for the acquisition and processing of sugarcane is that the road network does not constitute a viable alternative to the service provided by the Herbert River Tramway. The NCC rejected the notion that the two forms of transport were substitutable, stating that road does not constitute a viable alternative for rail transport in districts where a rail network already exists.

The Council cited plans by Tully Sugar Limited to extend its cane railway in order to access new areas (as opposed to using the road network) as supporting evidence for this conclusion. Based on this evidence, the NCC formed the conclusion that 'it is unlikely that the operator of a new sugarcane processing facility could compete effectively in the market for sugarcane acquisition and processing in the Herbert River district using road transport'.

We do not consider Tully Sugar Limited's plans to be a sufficient basis for this conclusion. As we argued in our initial submission, a preliminary assessment indicates that road may represent a viable alternative to the Herbert River Tramway and that the NCC needs to undertake a comprehensive assessment to determine the extent to which this is the case. We still consider that this assessment is necessary before any firm conclusion can be drawn regarding the substitutability of road and rail for the transportation of sugarcane in the Herbert River district.

3.1.2 Dependent market for above-rail services

We note that the NCC does not identify the market for above-rail services on the Herbert River Tramway in its assessment of the relevant dependent markets.

Given the NCC's definition of the relevant market as the use of below-rail infrastructure comprising the tramway network, it is considered necessary for the above-rail market to be assessed as a dependent market. The NCC has previously separately identified below rail and above rail markets in its declaration recommendations.

While this market is difficult to separate from the below-rail market given the vertically integrated nature of the operations conducted by sugar processors on sugarcane tramway networks (including Sucrogen in the Herbert River district), we consider it is necessary for this market to be assessed as it is likely that significant costs will be incurred if the below rail service were to be declared.

For instance, NQBE states that it will acquire and operate its own locomotives and rolling stock for use in its operations on the tramway, i.e. become a vertically integrated miller/train operator (without owning below rail infrastructure). This will involve significant entry and ongoing costs being incurred by NQBE or any new above rail operator. This issue is discussed further under the public interest criterion in Chapter 6 given it represents a further potentially large incremental cost associated with NQBE's declaration application.

4 Uneconomical to duplicate criterion

The NCC considers that Sucrogen's submissions on the substitutability of road for rail in the context of criterion (b) are misconceived. However, we do not consider this to be the case and note that the difference in conclusions is as a result of Sucrogen (and Synergies) and the NCC adopting differing interpretations of the relevant service.

4.1 Scope of market definition

In its assessment of whether alternative facilities could provide the service provided by the Herbert River Tramway, the NCC adopted a very narrow interpretation of the market for the service for which access is being sought, focussing on the below-rail services provided by the tramway network. By making this narrow interpretation, it is almost inevitable that the uneconomical to duplicate criterion will be satisfied because in nearly all cases, it will always be cheaper to augment an existing railway than build a new one.

This was not our view taken by Synergies, with a broader interpretation being adopted for the relevant service (i.e. a comparable service which is capable of transporting harvested sugarcane to crushing mills in a timely manner). Under this broader interpretation, we consider that road is able to compete with rail. As was stated in our initial submission, this stance is supported by evidence from elsewhere within the sugar industry in Australia and overseas, where large quantities of harvested sugarcane are transported to mills by road.

4.2 Extent of road competition

The NCC's draft recommendation notes that road at best serves as a complement to rail for the transportation of sugarcane for areas that are within a short distance of a processing mill, are remote to rail sidings or are not served by rail.

We note that in its declaration application, NQBE proposed to use road transport for some (unspecified) volume of sugarcane located within an approximate 5 - 10 km radius of its facility. It also stated that, beyond this radius, road transport is not an economical substitute for the Herbert River Tramway. In our first submission, we considered the substitutability of road for rail beyond this radius to be a key argument regarding the declaration application and one that the NCC needed to dedicate a significant amount of effort to investigating. The NCC's draft recommendation does not indicate that this investigation has been undertaken nor does it present sufficient evidence to justify the conclusion that road does not represent a viable alternative to the tramway network beyond this limited radius.

As noted in our first report, our preliminary analysis suggested that NQBE does not require access to the Herbert River Tramway for its proposed facility because of the existence of road competition. In our view, if the Herbert River Tramway did not already exist, then it would not be built today by Sucrogen or a new mill entrant because of the competitiveness of road transport vis-a-vis rail transport.

5 National significance criterion

We fully support the NCC's analysis of the national significance criterion in the Herbert River declaration application and consider this criterion to be one of the most important in this case because it will have a very important precedent effect as far as the threshold for coverage under Part IIIA is concerned.

The NCC uses the interesting example of a Brisbane office complex to indicate how a low asset valuation threshold would potentially bring a large range of facilities within the scope of the national access regime. This illustrates our point about the potential for many facilities to be potentially subject to access if the Herbert River Tramway is declared. This is indicative of the potential for perverse outcomes to emerge if the national significance criterion threshold is set too low.

In our view, it was not the original intent of National Competition Authority (the Hilmer report) in proposing the development of a new access regime that could apply to any sector of the economy, or to policy makers in developing the Part IIIA regime, to subject facilities such as the Herbert River Tramway to third party access. As stated by Hilmer in relation to a national access regime:²

In practice, however, such a regime should be applied sparingly focussing on key sectors of strategic significance to the nation.

Up to this point in time, application of the national significance criterion has resulted, in broad terms, in the Hilmer Report's coverage objective being satisfied. It is not considered that this would continue to be the case if facilities with characteristics similar to the Herbert River Tramway were subject to access declaration.

² National Competition Authority, Report by the Independent Committee of Inquiry, August 1993, p260

6 Public interest criterion

The NCC's draft recommendation is that the likely benefits of access to the service will not outweigh the costs. As a result, the Council was not satisfied that access is not contrary to the public interest and hence that the public interest criterion is satisfied.

The NCC's draft recommendation found two public benefits associated with the declaration of the Herbert River Tramway:

- declaration would result in the use of the tramway network instead of the road network, resulting in the avoidance of environmental and social costs associated with road transport relative to rail; and
- potential efficiency benefits associated with the construction of a new processing factory using the latest technology. The potential for additional output resulting from the use of additional feedstocks was also noted.

6.1 NCC assessment

In relation to the proposed benefits from the increase in competition in the market for the acquisition and processing of sugarcane, the NCC considered that any increase in returns to growers resulting from innovations to pricing arrangements would represent a transfer of income from millers to growers and would therefore not constitute a public benefit. The constraint on increases in the volume of sugarcane production in the Herbert River district in the short to medium term was an important factor underpinning this assessment. We support this assessment.

However, we do not consider the reported public benefit associated with avoided environmental and social costs to be material. This benefit can only be considered material if declaration of the Herbert River Tramway would result in the shift of a significant proportion of the sugarcane transport task from road to rail. The NCC's draft recommendation states that 'road transportation of sugarcane is, at best, a complement to the Service for limited tonnage either close to the mill or within areas not serviced by rail.'

The above statement is not consistent with the NCC's assessment that declaration would result in a shift in the sugarcane transport task from road to rail to the extent necessary to constitute a material public benefit in the form of avoided social and environmental costs associated with the use of road transport. Moreover, these costs are not quantified and these externalities are likely to be small where congestion does not arise.

It is also important to note that NQBE's business case must involve transporting the majority of its sugarcane on the Herbert River Tramway, with the declaration application stating that 'road transportation is not an economically viable substitute for the Tram Service'.³ We therefore do not consider there to be any material public benefits associated with the avoided environmental and social costs of road transport.

The key conclusions reached by the NCC in relation to the costs associated with declaring access to the service are as follows:

- access declaration is likely to result in Sucrogen incurring additional costs in relation to coordination and scheduling in addition to the potential loss of network capacity and other diseconomies;
- the NCC accepted that access declaration creates regulatory costs that are incurred in conducting negotiations and responding to the arbitration of access disputes;
- the NCC has recognised the additional complexity associated with negotiating access to the Herbert River Tramway given the inherent coordination and logistics issues such as the rapid deterioration of harvested sugarcane;
- it is accepted that NQBE's business plan would result in the loss of currently held exemptions afforded under the *Transport Infrastructure Act 1994 (Qld)* and that this will significantly increase Sucrogen's regulatory burden, resulting in additional costs; and
- given that the output of sugarcane is unlikely to increase, the NCC considers that the construction of a third mill will result in the volume of sugarcane currently being processed at two mills being spread over three mills, implying a reduction in the overall efficiency of sugarcane processing in the Herbert River district.

In its overall conclusion relating to criterion (f), the NCC noted that it is concerned that the costs of access may be relatively large when compared to the probable benefits. However, to reach a firmer conclusion regarding this criterion, the NCC has sought additional information on:

- the level, timing and likelihood of additional output from the processing of sugarcane in the Herbert River district; and
- the magnitude and frequency of the likely costs.

³ North Queensland Bio-Energy Corporation Limited, Application for Declaration of CSR's Tram Network, 13 March 2010, pg 11, para 7.32.

6.2 Cost benefit analysis framework

In our view, it is appropriate to consider the public interest criterion and NCC's information request, in terms of a conventional cost benefit analysis framework.

Cost Benefit Analysis (CBA) is a tool which provides information to decision makers on the net impact of a project on the economic welfare of stakeholders impacted by a project. In this case, the 'project' is assumed to be the declaration of access to the services of the Herbert River Tramway and the establishment by NQBE of a facility that has a capability to process sugarcane into raw sugar and ethanol, as well as generate electricity sales from co-generation (using bagasse as the generation fuel).⁴

In general terms, CBA involves first identifying and evaluating both the costs and benefits of a proposed project, and then deciding whether the project should be implemented according to a particular decision rule. CBA supports a project when the gains (benefits) resulting from the change exceed the losses (costs); that is, when there is a 'positive net benefit'. The project is said to improve economic efficiency if it increases the overall level of economic welfare of the affected stakeholders.

To assess the benefits and costs of the proposed project, its impacts are assessed on a 'with' and 'without' basis. The 'without' is called the base case, because it provides a baseline against which all direct impacts of the project can be measured. Hence, the base case in this study is that the Herbert River Tramway is not declared for third party access. The 'with' case is the economic state that is expected to prevail if the Herbert River Tramway is declared.

The quantitative assessment identifies the gross impact of moving from the Base ('without case') to the 'with' case. Many aspects of the project can simultaneously benefit some stakeholders and impose costs on others. While it is important to know the type and value of impacts on individual stakeholder groups, it is the net impact of the change that demonstrates the impact of the project on stakeholders as a whole.

The most challenging aspect of CBA is to assign dollar values to the identified benefits and costs. In this case, the difficulty has stemmed from the very short time frame within which this submission has been prepared. As a result, the CBA that we have performed provides an indication of the order of magnitude, rather than a precise estimate, of the costs and benefits likely to be generated by the provision of access to the Herbert River Tramway.

⁴ For this analysis, NQBE has been used as the alternative case because its planned facility and the associated impact of its establishment on Sucrogen in the Herbert River district is judged to be representative of what any access seeker in relation to the Herbert River Tramway would likely do.

Given NQBE is seeking declaration of the Herbert River Tramway for 20 years, this is the evaluation period we have used for the CBA.

6.3 Base case

As noted above, the base case is that the Herbert River Tramway is not declared for third party access.

Under the base case, Sucrogen's existing Victoria and Macknade mills will continue to operate, crushing around 4 to 4.5 million tonnes of sugar cane per annum (depending on seasonal conditions).

Sucrogen incurs a mix of operating and capital costs associated with its purchase of cane, rail transport and sugar crushing operations. The Sucrogen mills produce raw sugar and molasses, which are substitutable products derived from the crushing of sugar cane.

6.3.1 Electricity co-generation

Surplus electricity from the Victoria mill is sold into the national electricity market (using the waste cane fibre by-product of sugar cane production (bagasse)). Sucrogen has commenced a \$24 million project to replace two of the existing steam turbo-alternators at the Victoria mill with a single, larger capacity turbo-alternator capable of producing 19 megawatts (MW) of renewable electricity. The new facility takes advantage of existing steam capacity at Victoria mill to provide a low capital cost option to expand the mill's total electricity exported to the national grid by up to 12 MW. The expected cost of this investment is \$24 million. We understand Sucrogen is actively investigating its current co-generation portfolio in the Herbert and Burdekin regions but has yet to commit to investments beyond the Victoria mill project.

All co-generation technologies available to NQBE are similarly available to Sucrogen, as this technology is mature, and is now widely implemented worldwide in the sugar industry. The technical limits to the energy (MWh) able to be generated from the expected Herbert River sugarcane crop are independent of who is the processor of this cane. The same opportunities to supplement fuel with other crops or energy canes exist for both processors. Therefore, if declaration is made, and NQBE carries out its proposed plan to build a facility with co-generation capability and Sucrogen carries out its plans to supplement the co-generation capacity in its mills, then no material differential in co-generation capacity, output or revenue is likely.

Consequently, in our view, the appropriate comparison for cost benefit purposes involves comparing the capital cost and risk of the base case and alternative scenario -

in the base case, the maximum cost involves Sucrogen investing \$150 million to expand its co-generation capacity to be on an equivalent basis in terms of electricity export sales compared to if NQBE gained access. This compares with the (minimum) \$400 million investment required for the NQBE proposal (the "with declaration" case in section 6.4). The net cost increase attributable to the alternative scenario is therefore \$250 million.

We have assumed that, sugar cane production in the Herbert River will remain around 4 to 4.5 million tonnes over the forecast horizon (depending on seasonal conditions) given no foreseeable improvements in cane yields. However, from a CBA perspective, the issue is not related to cane yields but to the potential for more cane production (an efficiency benefit) under different milling arrangements. In this regard, NQBE does not appear to suggest that its milling operation will result in more cane production than the two existing Sucrogen mills.

There is no alternative land use for the Herbert River considered in the base case given Sucrogen's sunk investments in the Herbert River Tramway and associated crushing mills create an incentive for it to deal with cane growers in such a way that the area in the region used to grow sugar cane is maximised. Geographic constraints also place limits on sugarcane production in the region (large parts of the Herbert River district are not suitable for sugarcane production).

6.4 Alternative case

The 'with' case in our analysis involves only one alternative, which is the construction of a sugar mill incorporating a co-generation capability utilising existing tramway capacity.

As noted in our first submission and acknowledged by the NCC (see section 6.1 above), there will be a number of additional costs incurred if the Herbert River Tramway is declared for access. The main additional cost categories we have identified for the CBA are as follows:

6.4.1 Costs

Safety-related rail costs

We have assumed that Sucrogen loses its exemption status under the Transport Infrastructure Act (TIA) as a cane railway and becomes subject to a wide range of additional safety-related obligations as a railway manager under the TIA. The costs incurred would be of a capital (up-front) and operating (ongoing) nature. A rail industry expert, Aurecon, was engaged by Sucrogen to prepare an indicative estimate

of the costs (capital and operating expenditure) that might reasonably be required by Sucrogen to contemplate access to its cane railway network. Aurecon's report is an attachment to this submission.

Aurecon identified the scope of the additional requirements that Sucrogen would need to implement in order to upgrade its existing rail network to comply with the regulatory requirements of the TIA under the following major headings:

- infrastructure
- operating systems
- control systems
- safety management systems.

Regulatory compliance was interpreted as Sucrogen achieving accreditation as a Railway Manager (for the defined rail network) and as Rail Operator (for their defined operations). In this report, Aurecon considered each of these aspects separately, although in practice Sucrogen would likely apply for Railway Manager/Operator

accreditation as a single submission. Notwithstanding the administrative and/or management efficiency that might arise from a single submission, Aurecon considers that there are no practical economies from such a single submission.

Aurecon estimates that up-front safety-related costs Sucrogen would need to incur to meet its legislative obligations to be around \$3.4m, with ongoing costs of around \$644,000 per annum. Table 1 summarises the major safety-related cost categories.

Table 2: Estimates of cost of achieving TIA compliance

Cost item	Initial	Ongoing
Safety management system	\$545,000	\$120,000
Operator health compliance	\$280,000	\$40,000
Annual levy (accreditation)	\$63,397	\$63,397
Infrastructure, Systems, Processes	\$2,400,000	\$420,000
TOTAL	\$3,288,397	\$643,397

Source: Aurecon

Rail access-related costs

We have assumed there will be one-off and ongoing operating costs associated with negotiation of access to the Herbert River Tramway, including the cost of arbitrations

in relation to access disputes at the start of the period and at the 10 year mark when the access agreement is re-negotiated.⁵

Estimated arbitration costs are \$4 million for the first arbitration and \$2 million for the second arbitration at year 10 of the evaluation period (reflecting the costs of both Sucrogen and NQBE). This reflects an assumption that access will be contentious given the complexity of Sucrogen's scheduling and milling operations, which were discussed at length in Sucrogen's first submission to the NCC, and that a third party operator will enter into 10 year access agreements to mitigate its entry risk.

An additional annual cost of \$2.495m for insuring the Herbert River Tramway, based on a third party rail operator transporting around half of the total volume on the network, was estimated by Marsh and incorporated in our analysis.

We have assumed additional ongoing costs associated with scheduling and real-time management of trains of both Sucrogen and a third party rail operator (assuming one new above rail operator enters the above rail market if access is declared). These costs reflect one additional full-time person (\$100,000 per annum) is required to perform these functions. In our view, this is a very conservative estimate.

We have also assumed there will be additional costs associated with NQBE connecting its facility to the existing tramway and that an expansion of the capacity of the tramway in the most heavily trafficked areas will be necessary to accommodate a third party operator's trains.

Estimates of these rail access-related costs are presented in Table 2.

Table 3: Estimates of rail access-related costs

Cost category	Initial	Ongoing
Rail connection	\$14,197,103	-
Rail augmentation	\$8,130,000	-
Insurance	\$2,500,000	\$2,500,000
Access arbitration	\$4,000,000	\$2,000,000
Additional train controller	\$125,000	\$100,000
TOTAL	\$28,952,103	\$4,600,000

Note: Arbitration costs are incurred in Year 1 and Year 10 of evaluation period.

Source: Aurecon, Sucrogen, Marsh, Synergies

⁵ It is assumed that NQBE or any new milling entrant would negotiate long-term cane supply agreements with growers and long term access agreements with Sucrogen, given the very high capital costs associated with entry into the milling and above rail markets.

Above rail costs

As noted in section 3.1.2, NQBE has indicated that it will acquire and operate its own locomotives and rolling stock (sugar bins) for use in its operations on the tramway.⁶ We have assumed that an investment of around \$31 million would be required to acquire sufficient rolling stock to haul 2.1 million tonnes per annum.

We have also assumed increased fuel costs will be incurred for rail haulage due to an increase in average haulage distance for above rail operations due to cane growers being contracted to both Sucrogen and NQBE⁷). The average increase in haulage distance has been estimated to be 2.9km, an increase of around 20%. This is reflected in seasonal increase in net tonne kilometres of around 11,698,755 assuming a random distribution of cane growers contracted to NQBE. It should be noted that this estimate is conservative because the increase in average haulage distance will also increase track and rolling stock maintenance costs. However, these have not been incorporated in our analysis.

New sugar mill/co-generation costs

There will be a significant investment cost of NQBE's new sugar mill/co-generation facility. NQBE has estimated this cost at \$400 million.

There will also be a large cost associated with closing one of Sucrogen's existing mills, including the cost of remediating the site. As noted by the NCC, the entry of a third mill into the market will render one of the existing Sucrogen mills uneconomic to operate given the assumed fixed supply of sugar cane. Given the age of both mills and associated sites and the existence of rolling stock workshops, it could be expected that there will be contamination issues if either site were to be closed. As result, a cost of \$20 million has been assumed associated with a single mill closure and site remediation.

Disruption costs to Sucrogen

In our analysis, we have largely assumed that NQBE (or any third party rail operator) could be accommodated without any impact on Sucrogen's existing rail/milling operations. Whilst we have not been able to quantify this impact given time constraints, it could be significant.

⁶ An alternative entry strategy would be to contract a non-related above rail operator to supply above rail services on the tramway. However, given the very narrow gauge and specialised nature of tramway operations, it would likely be very difficult to find an above rail operator willing to invest in entering this above rail market.

⁷ Sucrogen's existing schedule of transporting sugar cane to the closest of its two mills will be compromised.

The Australian Competition Tribunal recently found in relation to the disruption issue for access to railway lines in the Pilbara iron ore region as follows:⁸

Where there was high demand for a line, there would be severe logistical and commercial constraints imposed on third parties to ensure there was no interference with the owners' highly flexible business models. Access would also delay the owners' future expansions plans or changes in operating practices or technology.

Given the time critical nature of Sucrogen's transport and milling processes, this suggests that the disruption issue is likely to be significant on the Herbert River Tramway.

6.4.2 Benefits

As noted by the NCC in its Draft Recommendation, there appear to be very few benefits (as opposed to transfers or substitution effects) associated with NQBE's declaration application. The main additional benefit categories we have identified are as follows:

Sucrogen's retention of surplus rolling stock and sugar bins

We have assumed that Sucrogen will store and cascade its surplus rolling stock across its fleet with the net benefit the deferred expenditure such cascading allows. Given that the oldest rolling stock will be cascaded, which in all probability is life expired, we consider this benefit to be minimal.

Safety-related benefits

The increased costs associated with Sucrogen being required to comply with the TIA will deliver benefits to Sucrogen and NQBE in terms of their rail operations commensurate with the costs.

However, there is also a potential spill over benefit to the population of the Herbert River, in particular, due to safer road/tramway crossings. However, given the relatively small geographic area and population represented by the Herbert River district, these benefits are highly unlikely to be material. Given time constraints, no effort has been made to estimate the value of these benefits.

⁸ Australian Competition Tribunal, In the Matter of Fortescue Metals Group Limited [2010], ACompT 2, June 2010.

6.4.3 Transfers

Under a CBA framework, transfers refer to those economic impacts that represent a benefit to one stakeholder group and an offsetting cost to another stakeholder group, so that there is no net economic gain or loss between the with and without case. Hence, transfers must be distinguished from costs and benefits in the CBA framework and excluded. The most significant transfer category identified is as follows:

Raw sugar production and sales

Given the fixed supply of sugar cane, NQBE's raw sugar sales will simply replace Sucrogen's raw sugar sales rather than create additional sugar production (or sales) from the region.

In other words, there is no net benefit from NQBE establishing its facility unless it will be able to crush sugar cane at a lower marginal cost than Sucrogen's existing facilities.

We understand that the technical and economic performance of Sucrogen's existing sugar mills is at or near best practice. However, as noted above, it has been assumed that NQBE's entry will result in the closure of one of Sucrogen's existing mills (either Macknade or Victoria mill), with all Sucrogen's assumed reduced sugar cane supply of 2.4 million tonnes crushed at the remaining mill (it would be uneconomic to crush the 2.4 million tonnes at both Macknade and Victoria). Determining the identity of the mill that would be shut down would depend upon which mill will be most profitable to Sucrogen - an assessment which would depend upon a range of factors, such as expected mill capacity requirements,⁹ relative milling and transport costs, foregone or delayed closure and decommissioning costs and commercial opportunities.

The decision about *which* mill to shutdown will involve a complex financial decision for Sucrogen that will depend on a range of factors. In practice, Sucrogen will model a range of scenarios and make its decision based on the outcomes of this analysis. This has several implications:

- it is possible that Sucrogen could delay the decision to shut down a mill until more information becomes available, including in relation to the sustainability of the NQBE operations (in other words, due to the costs associated with decommissioning and potentially recommissioning plant; delays are likely to have positive real option values);

⁹ NQBE has not revealed the capacity of its proposed crushing facility.

- the decision is likely to be made on a narrow financial assessment for Sucrogen – this raises the prospect that there may be insufficient milling capacity for the region in the future to accommodate peak supply years.

For the purposes of the analysis, we have assumed that one of Sucrogen's plants will be shut down at the time of the commencement of NQBE's operation. Whilst this assumption does not reflect the complexity of the decisions that will be made, it is likely to be conservative in the sense that it will reflect the minimum social costs being incurred relative to the other scenarios that could be modelled.

Regardless, we agree with the NCC's assessment that declaration would not result in an expansion in the amount of sugar cane that is grown in the region. Consequently, it is assumed that there are no additional benefits from raw sugar production or sales due to the commencement of NQBE's processing facility.

6.4.4 Substitution effects

Substitution effects are comparable, but somewhat different, to transfers under the CBA framework. A substitution effect refers to those economic impacts where the production of certain goods/services is interchangeable depending on relative prices. However, no new good/service is created. In other words, there is no economic efficiency improvement attributable to the economic impact. The most significant substitution effect identified is as follows:

Ethanol production and sales

Based on CSR's experience in the ethanol marketplace, there are no windfall gains to be made from ethanol. It is expected that ethanol prices will maintain parity with sugar prices, so no revenue uplift is expected from diverting cane from the production of sugar to the production of ethanol.

The price of ethanol will be determined by the price of oil, government policy on fuel excise and competition from other sources of ethanol including imported ethanol from Brazil. Ethanol import parity price considerations will limit any upside associated with high oil prices in the future. At oil prices of US\$80/bbl, ethanol prices (ex-mill, excise paid) are expected to be ~75cpl, resulting in a mill netback of ~62 cpl (assuming existing excise framework is implemented ie 12.5cpl ethanol excise). Based on simple stoichiometry (1.6t sugar per kl ethanol) this is equivalent to a sugar price of ~14 US c/lb. The three year average ICE#11 sugar price to Jun'10 is ~15 US c/lb.

Table 3: Wholesale gasoline and ethanol formulas

Tapis crude oil price	USD/bbl	80
Refining cost	USD/bbl	8
Singapore MOPS 95 gasoline price	USD/bbl	88
Freight: Singapore to Australia	USD/bbl	4.0
Quality premium and discount factor	USD/bbl	0
Wholesale gasoline	USD/bbl	92
Conversion bbl to litres	l/bbl	159
Exchange rate USD/AUD		0.8
Wholesale gasoline		72.3
Ethanol price formula		
Wholesale gasoline	cpl	72.3
Ethanol delivery cost	cpl	(10.0)
Share of excise differential to ethanol producer	cpl	-
Ethanol price ex mill, excise unpaid	cpl	62.3
Excise	cpl	12.5
Ethanol price ex mill, excise paid	cpl	74.8

Source: Sucrogen

The fertiliser co-product margin is an additional source of revenue for an ethanol production facility. It is the potassium content of the fertiliser product that has value. Based on the low concentration of potassium in the fertiliser product, this would effectively add only ~3cpl¹⁰ (0.7 US\$/lb on a sugar equivalent basis) to the average revenue achieved by an ethanol facility.

The low concentration of potassium and the large quantity of water in the fertiliser product produced means that margins diminish rapidly with distance transported. Any profitable use will require the development of a local market as it will be uneconomic to transport out of the region. In a competitive environment, entry into this local market and gaining the market share required to place all the product will take a substantial time to develop, with pricing affected during this time.

In Brazil, which has a large sugar-based ethanol industry, sugar prices and ethanol prices tend to provide equivalent returns to millers over time. There are times when the markets diverge due to local and transient supply and demand issues. However, sustained divergence in these markets leads to supply responses from producers who have capacity to switch production between ethanol and sugar.

¹⁰ Assumes 2.5g K₂O equivalent per litre under (4.0g KCl equivalent), 12 litres under per litre ethanol; wholesale Muriate of Potash (KCl) price of A\$675/tonne.

Once excise barriers on ethanol imports to Australia end (in 2015, based on May'10 Federal Budget), together with low freight rates from Brazil to Australia (~US\$100 to 120/kl) and customs duty of only 5%, the potential for Brazilian ethanol imports will cap local ethanol prices to levels which provide equivalent returns to global sugar prices.

As result, there are no expected additional benefits from ethanol sales if NQBE were to establish its processing facility.

Employment

NQBE has stated that it anticipates a workforce of approximately 220-250, full-time employment associated with its proposed facility.

However, given the fixed supply of sugarcane in the region, it could be expected that any increase in employment at NQBE will be offset by reductions in employment at Sucrogen, including due to the closure of one of its mills.

Consequently, no net benefit is assumed to occur due to the commencement of NQBE's proposed facility.

6.4.5 Net impacts

The CBA we have performed suggests that the economic impacts associated with NQBE gaining access to Sucrogen's Herbert River Tramway are nearly all negative and will not provide any net benefits to stakeholders in the Herbert River district. In other words, declaration of the tramway will decrease economic welfare as the economic costs unequivocally exceed the economic benefits.

Our analysis indicates that the proposed project will result in a net decrease in social welfare in the order of \$383.7 million in NPV terms or \$19.1 million per annum. A discount rate of 3.0 per cent in pre-tax real terms (adjusting the nominal 10 year Commonwealth bond rate in late June 2010) was used to calculate the net present value, reflecting the social rather than private nature of any cost benefit assessment required under the public interest criterion.

Table 4: NPV estimates by cost category

Item	Net present value estimate
Safety	(\$14.1 m)
New entrant connection cost	(\$14.2 m)
Augmentation of tramway	(\$8.1 m)
Arbitration	(\$5.5 m)
Insurance	(\$38.2 m)
New sugar mill	(\$400.0 m)
Sucrogen co-generation investment	\$150.0 m
Above rail rolling stock capital	(\$30.9 m)
Additional fuel costs	(\$2.7 m)
Mill decommissioning cost	(\$20.0 m)
TOTAL NET COST	(\$383.7 m)

Note: Total may not add due to rounding

The NCC has noted that many of the costs we have identified, in particular, rail safety and rail access-related costs would be recoverable by Sucrogen from access seekers through an access tariff. In our view, this may or may not be the case depending on whether a third party actually uses the network and the outcome of the arbitration of an access dispute. However, more importantly, the key message from our analysis is that there will be a very large cost borne by all stakeholders in the Herbert River region if access were to be declared for no apparent offsetting benefit.

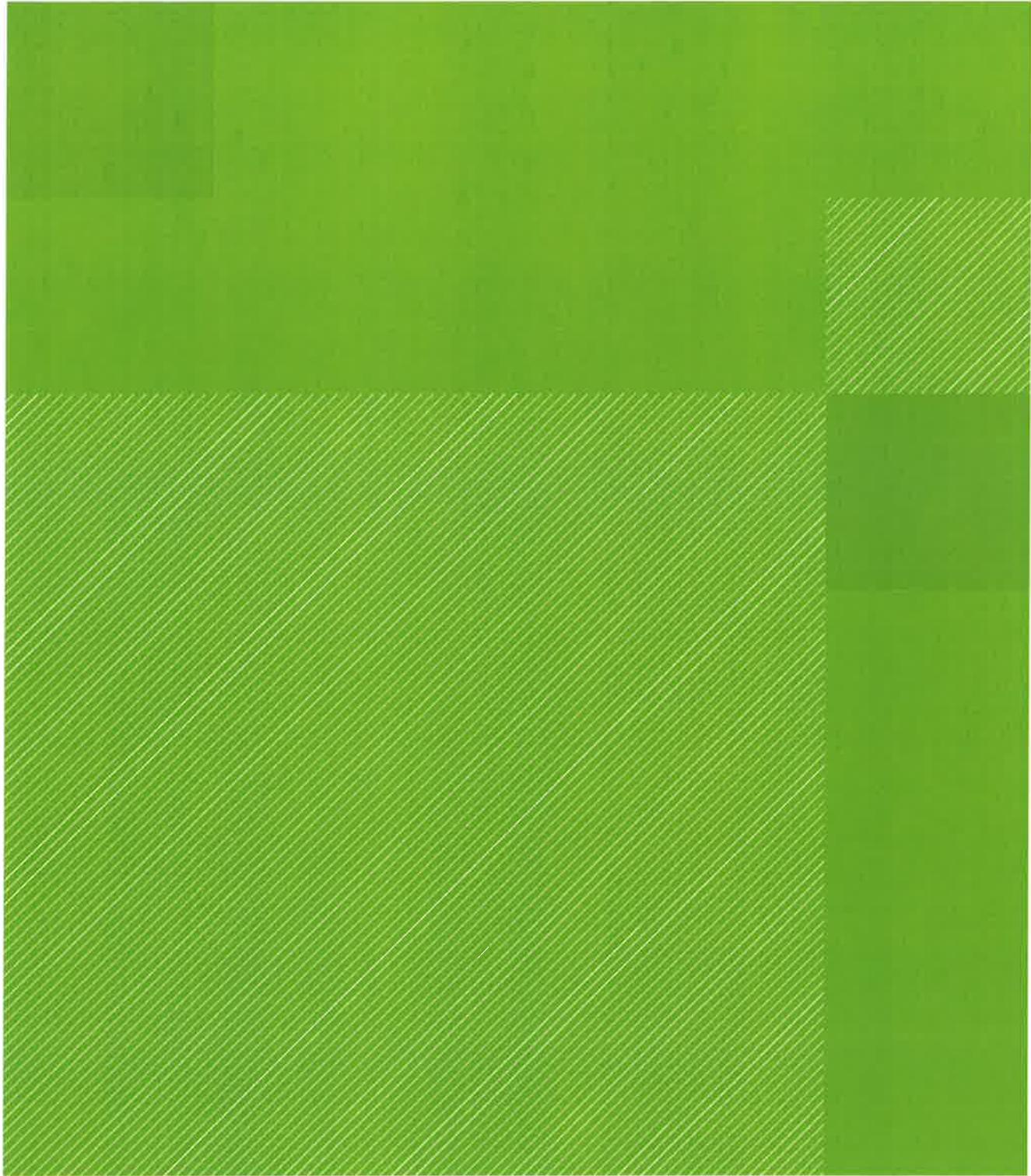
6.4.6 Conclusion

The CBA we have performed to inform the assessment of the net benefits of NQBE's declaration application is an order of magnitude rather than a precise estimate given the tight time constraints for preparation of this submission. However, the analysis clearly indicates that the provision of access to the Herbert River Tramway fails the test that it would not be contrary to the public interest. Hence, in our view, the public interest criterion is not satisfied.

Moreover, the nature of the economic impacts we have assessed suggests that any other declaration application in relation to the Herbert River Tramway, driven by new entry to the sugar milling/electricity co-generation market, would result in a comparable outcome to the one we have estimated here.

Attachment B

Aurecon report



**Study of the cost impact of
compliance of Herbert River
Cane Railway Network with the
Transport Infrastructure Act**

Sucrogen

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29 June 2010
Revision 2

aurecon

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Appendix A

Sucrogen Herbert Region - Rail Network

Appendix B

Base Documents Provided by Sucrogen

Appendix C

Estimated Cost of Compliance of Herbert River Cane Railway Network with the TIA

1. Introduction

1.1 Background and Brief

On Wednesday 16 June 2010, Mr Shayne Rutherford (Executive General Manager, Strategy and Business Development, Sucrogen) contacted Aurecon (Ken Devencorn) and subsequently (Thursday 17 June 2010) provided the following advice –

As per our discussion tonight, I confirm that Sucrogen seeks to engage you to assist us in making our submission to the NCC draft recommendation in relation to the declaration of the Herbert River cane railway which we operate. Our final submission is due by the end of the month.

As discussed, we are of the view that declaration of our cane railway would expose us to increased regulation under the Transport Infrastructure Act as we would lose the exemption that we currently enjoy.

Specifically, we are seeking your assistance on the following scope of work:

- 1. Identification of the scope of the additional requirements (infrastructure, operating systems, control systems, safety management systems etc) that Sucrogen would need to implement in order to upgrade our existing rail network to meet the regulatory requirements of the Transport Infrastructure Act*
- 2. Prepare an indicative estimate of the costs (capital and ongoing operational) that would be incurred by Sucrogen in implementation the above scope*

We can provide you with a detailed description of the rail network, its current operations and configuration to assist you in your analysis. Your findings will be incorporated in a cost benefit framework being prepared by Synergies and ultimately incorporated in our submission acknowledging your authorship of the estimate.

Can you please confirm your availability and provide an estimate of costs to complete the work with a target completion date of Friday 25th June so we have time to incorporate in our final submission due 1 July.

As discussed, we appreciate the limited time available and are comfortable with indicative costs expressed as a range, rather than definitive cost estimates.

For your background, I attach a copy of our original submission to the NCC and their draft recommendation. I draw your attention to sections 10.24, and 10.29 to 10.31 of the NCC draft recommendation and Annexure A of the Sucrogen submission for a detailed description of the cane railway.

We have interpreted this as the following functional Brief –

1. Identification of the scope of the additional requirements –
 - infrastructure,
 - operating systems,
 - control systems,
 - safety management systemsthat Sucrogen would need to implement in order to upgrade its existing rail network to comply with the regulatory requirements of the TIA.

Regulatory compliance has been interpreted as Sucrogen achieving Accreditation as a Railway Manager (for the defined Rail Network), and as Rail Operator (for their defined operations). In this report, we have considered each of these aspects separately, although in practice Sucrogen would likely apply for Railway Manager/Operator Accreditation as a single submission. Notwithstanding the administrative/management

efficiency might arise from a single submission, we suggest that there are no practical economies from such a single submission.

2. Preparation of an indicative estimate of the costs (capex and opex) that might reasonably be required by Sucrogen to contemplate access to its cane railway network.

This study is to be provided in the form of a report, completed and provided to the client (Sucrogen) by COB Friday 25 June 2010.

1.2 Sucrogen's Defined Rail Network

In considering our response, we have reviewed Sucrogen's existing Rail Network so as to better understand the likely impacts of Accreditation as a Railway Manager. Sucrogen define their cane rail network thus –

The cane railway network is comprised of approximately;

- *Main and branch lines: 321.6 kilometres*
- *Siding lines: 141.2 kilometres*
- *Yards and passing loops: 41.8 kilometres*

The larger main lines, some of which branch off from other major lines, stretch the following (1 way) distances from the nearest CSR mill;

- *Abergowrie: 55 kms*
- *Lannercost extension: 24 kms*
- *Stone River: 35 kms*
- *Hawkins Creek: 29 kms*
- *Seymour: 12 kms*
- *Lucinda: 13 kms to MKD and 21 kms to VRA*
- *Bambaroo: 29 kms*
- *Crystal Creek: 40 kms*

The track consists of concrete sleepers (at a spacing of about 610 mms) to each of which are fastened lengths of steel rails to form panels at a gauge of 610 mms. A further layer of ballast covers the sleepers and this material is packed under and around the panels to give a relatively immovable platform for rolling stock movement.

Track panels are joined at varying intervals by fish plates (bolted either side of the rail) or by welded joints. The aim is to have smooth level track with minimal but even grades. There should be minimal rail to rail elevation (super-elevation) differences except at curves to counteract tangential forces applied to the rail head by moving rolling stock wheels.

Rail sections are generally a nominal mass per unit length of 20 and 30 kg/metre, the higher mass being used for higher duty parts of the network. Typically, the sugar industry has accessed second hand rail section after use in state rail networks due to costs of acquiring new rail.

The rail infrastructure for the Herbert Mills is generally held in the entity CSR Sugar (Herbert) Pty Ltd (ABN 47 098 999 985). It is constructed on a multitude of land parcels of various landholders, the vast majority of these current being cane suppliers, as follows:

- *Freehold – CSR holds some 100 freehold parcels*
- *Crown Leases – CSR holds 7 special leases*
- *Waterways – we have numerous crossings of waterways that have no formal tenure*
- *Road Crossings – crossings and traverses on roads total about 370 separate sections*

Study of the cost impact of compliance of Herbert River Cane Railway Network with the Transport Infrastructure Act

- Queensland Rail – 6 crossings of QR tracks
- Sugar Industry Act Access Rights (SIA) – CSR holds about 350 such easements
- Leases & Easements on Title – CSR relies on these for about 130 land parcels; about 10 leases have expired in recent months.
- Unregistered Agreements – there are 4 land parcels covered by such agreements

There are 22 land parcels on which rail main line is constructed over which CSR does not have formal tenure; this includes the expired leases referred to above as well as 3 line deviations completed in the past year [2009].

The cane railway network includes 251 sidings used for cane delivery - Sidings are made up of about 141 kilometres of trackwork.

The design of our narrow gauge track allows for certain forces to be applied at the rail. This is referred to as the axle loading, and is compounded by the dynamic impact forces due to rolling stock speed, the motion of wheels and rail jointing and alignment. The current CSR 40 tonne locos are considered to be the limit at 10 tonnes loading per axle.

There is very significant investment in flashing light protections installed in the network, as well as 2 grade separations where the cane railway goes under the roads.

There are about 33 state declared road crossings on the network, with 29 being protected by flashing lights.

There are over 100 Shire road crossings on the network where the road is formed and/or sealed. Of these, 10 have active protection installed by way of flashing lights, the balance being marked with standard traffic signage.

In addition, there are numerous crossings of unformed road, internal farm accesses &

There are also numerous sections of track constructed that traverse gazetted roads. All of these and the above crossings are recorded with the relevant road authority and permits issued.

We have independently reviewed the "Sucrogen Herbert Region - Rail Network [map]" and independently determined the following infrastructure -

Rail length km (main line)	344
Number of bridge or river crossing	2
Number of road crossing	133
Number of turnouts	53
Number of passing loops	3
Number of (rail) crossings with QR network	5
Number of major highway crossing	3
Number of major minor roads crossing	125
Number of occupational crossings (minimum)	178
Number of level crossings (minimum)	311

1.3 Sucrogen's Defined Rail Operations

Sucrogen operate services (loco hauled bulk wagon operations) over the defined network during the harvest season employing their own locomotive fleet comprising –

- 18 tonne (3 axle),
- 24 tonne (4 axle bogied), and
- 40 tonne (4 axle bogied).

They are of varying axle weights and hauling power, i.e. loaded bin capacity. Loads for loco types vary from 160 full small bins for an 18 tonne loco to over 240 full small bins for the 40 tonne locos.

They are typically manned by a driver and an assistant, except for RSU units [Remote Shunting Units].

Communication between the driver and assistant is nearly always by 2 way radio, with a signal protocol as back-up if there is radio failure.

2. Sucrogen's Current Position with Respect to Rail Management

2.1 Accreditation - Rail Management - Overview

Rail management in Queensland is defined under the provisions of the Transport Infrastructure Act (the TIA, 1994) and regulated by the Department of Transport and Main Roads (DTMR), the "Regulator". The obligations and responsibilities of rail management are defined within the provisions of Accreditation; a defined regime of –

- Above Rail Management – "Above" relating to the role of **Railway Operator** who operates rail services on a Railway Manager's network typically under the provisions of an Access Agreement and within the bounds and regime defined for the rail network. The Railway Operator is solely responsible for the safe provision of their rail services to the defined standards, and
- Below Rail Management – "Below" relating to the **Railway Manager** who is responsible for the definition and application of standards, and hence provision of the rail network (the rail infrastructure). The Railway Manager undertakes to provide the rail network to the defined standards and, by way of Access Arrangements within the bounds of commercial agreements, provides the rail network to Railway Operators. The Railway Manager is solely responsible for the safe provision of the rail network –
 - Standards definition, including
 - Minimum design, construction, and maintenance standards
 - Maintenance to meet the minimum safe requirements of traffic on the rail network,
 - The provision of an inspection regime for all aspects of the rail network to ensure compliance with the defined standards,
 - The provision of an accident and incident investigation and management regime including resources to manage incidents on the rail network,
 - Safeworking procedures and management, which includes
 - train control,
 - communications systems, and
 - SCADA.
 - The commercial terms offered to Railway Operators, which includes
 - the definition of the Reference Train (the minimum standard to which Above Rail services must operate – including sectional running times, rollingstock standards, operating practices and regime),
 - tariffs (the commercial terms by which Access is granted and investment/re-investment is effected), and
 - Interface Arrangements with adjacent property holders, Competent Authorities (such as property arrangements with Councils, and other Authorities)

All Railway Managers and/or Railway Operators within Queensland are required to be Accredited in accordance with the TIA.

2.2 Rail Corridor and Corridor Sub-Lease

A further complication is that all Rail Corridor is administered by the Chief Executive DTMR, and provided by way of Grant of Sub-Lease to a nominated Railway Manager. Only an Accredited Railway

Manager can hold the sub-lease, and all rail corridor is defined under such lease. Hence, it is the case that if the nominated Railway Manager loses their Accreditation, so too do they lose their sub-lease and the rail corridor. We haven't considered this issue in this paper as time does not permit a detailed consideration. In short, typically candidate Railway Managers negotiate ownership (acquisition) of the nominated Rail Corridor, provide the corridor to the State, who then ultimately grant the sub-lease back to the Accredited Railway Manager.

The cost of this process has not been contemplated here as time does not allow us to undertake an estimate of the cost of land acquisition, presumably land survey of the nominated corridor, and the legal costs of such an exercise.

Clearly though, if Sucrogen were to be caught under the provisions of the TIA, then so too would be the operating rail corridor. It might arise that Sucrogen might then be obliged to acquire the corridor (as rail corridor under the provisions of the TIA) and provide it to the State. Given the complexity and varied ownership of the existing network, such could be an expensive and protracted process.

2.3 Insurance

A central element of Rail Management and hence compliance with the TIA is, *“Demonstration that the applicant has the financial capacity or public risk insurance arrangements in place to meet all reasonable potential accident liabilities for the railway, including how sufficient cover was determined, the organisation providing public risk insurance and the amount covered”*.

In consultation with Sucrogen staff on Thursday 23-Jun-2010 it was revealed that the firm has blanket insurance cover over all of its operations – and that the rail network would not necessarily be separately or independently insured. Notwithstanding this, in an effort to determine the cost of insurance, and hence the cost of compliance, an exercise completed by Sucrogen on 28-Jun (Herbert Railway Insurance Cost) which provides that the full cost of insuring the network would be \$6.987M.

We are not qualified to provide advice on insurance exposure and hence have included this number in good faith.

2.4 Sucrogen's Current Rail Management

Presently Sucrogen is not obliged comply with the provisions of the TIA. In fact, Section 107 of the Act specifically excludes cane railways –

107 Scope of chapter

- 1) *This chapter applies to rail transport infrastructure and other rail infrastructure.*
- 2) *This chapter does not apply to—*
 - (a) *a cable car; or*
 - (b) *a monorail; or*
 - (c) *an amusement railway; or*
 - (d) *a railway that—*
 - (i) *is part of, and used solely for, a mining operation; and*
 - (ii) *is not connected to a railway used to transport passengers or freight; or*
 - (e) *a cane railway; or*
 - (f) *light rail or light rail transport infrastructure; or*
 - (g) *another railway prescribed under a regulation.*

Notwithstanding Sucrogen are not bound to compliance under the Act, from our recent discussions with the firm and its rail operations staff, we are aware that they nonetheless have well developed and mature systems in place which might readily be adapted for Accreditation. The cost of such an exercise is considered later in this paper.

3. Likely Impact upon Sucrogen of Compliance with the TIA

3.1 Safety Management System (SMS)

In order for Sucrogen to achieve Accreditation and hence compliant with the Act it must firstly develop, and submit a Safety Management System (SMS) for consideration by the Regulator. As a Railway Manager (for its Below Rail infrastructure) and Railway Operator (for its Above Rail operations) this might be contained within a single submission.

Part 3 of the TIA (Section 122) specifies that an Approved SMS is one (quite simply) approved by the Chief Executive DTMR as being appropriate for the management and operation of the railway.

The provisions of Accreditation have changed significantly in the past few years with the introduction of a National Accreditation regime (NAP - National Accreditation Package). NAP has been introduced to ensure consistency throughout all Australian rail regimes and eliminate some of the conflicts and inconsistencies which had previously existed for interstate or multi-state operators. Notwithstanding this, the fundamental building block upon which Accreditation is based remains Australian Standard AS4292 - the Australian Standard for Rail Safety.

The SMS is thus a risk-based management system which defines the Standards upon which the railway will be managed and operated.

From discussions with Sucrogen staff on Thursday 23-Jun-10 it is felt that whilst a great deal of material exists within the firm, it is likely that such would need to be formalised as Standards (under the name and at the risk of Sucrogen). Hence, whilst a task, it is not seen to be a significant expense and hence only a nominal amount has been contemplated for this.

The following table proposes our opinion, based upon our understanding of the rail network and rail operations and brief discussion with Sucrogen staff, of the cost of development of Standards, an SMS (for Railway Manager and Railway Operator Accreditation), and the more formalised development of risk management (to AS4292 and AS4360), and incident management regimes.

	Initial	Ongoing
Development of Standards	\$250,000	\$25,000
Development of SMS Documentation	\$250,000	\$50,000
Development/Implementation of more formalised Risk Management Regime	\$25,000	\$25,000
Development/Implementation of more formalised Incident Management Regime	\$20,000	\$20,000

3.2 Specific Provisions of the National Accreditation (NAP) – Operator Health Compliance

Section 3.17.1 of the NAP (Health and Fitness) provides that, *“The SMS must include effective processes and programs to ensure employees (and contractors) who perform rail safety work are of sufficient good health and fitness to perform the functions for which they are certified or the tasks they undertake. The National Health Assessment Standard is the minimum standard to be applied for the management of rail safety worker health assessment.”*

Drivers and Drivers Assistants (DAs) on the Sucrogen rail network might reasonably be described as “Safety Critical Workers” in that they are workers, *“whose action or inaction, due to ill-health, may lead directly to a serious incident affecting the public or the rail network. The health and fitness of these workers, especially their vigilance and attentiveness to their job, is crucial and they are therefore the main focus of this Standard. Safety Critical Workers’ tasks are those that might affect the safety of the public and the network and are distinguished from tasks that affect only individual worker safety. They*

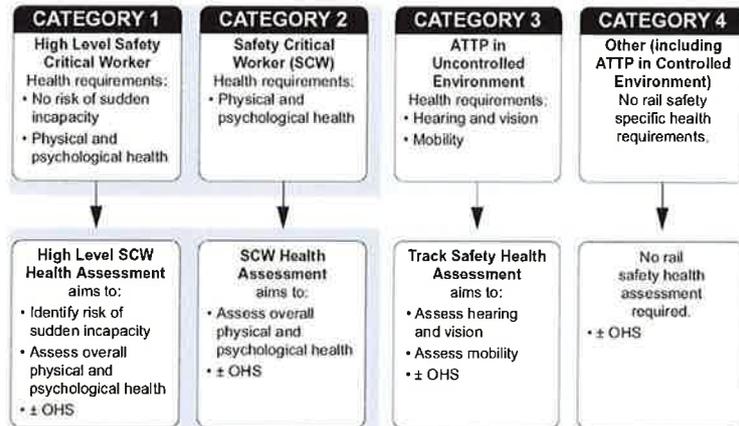
Study of the cost impact of compliance of Herbert River Cane Railway Network with the Transport Infrastructure Act

are also distinguished from tasks where skill has the main bearing on rail safety and ill-health is a lesser consideration.”

There are two Safety Critical Worker Risk Categories:

- High Level Safety Critical Worker (Category 1), and
- Safety Critical Worker (Category 2).

We have taken the reasonable view that Sucrogen’s 80 drivers and 60 DAs might be described as **Category 2** and hence should be health-assessed and monitored as is consistent with the standard.



That being the case, and estimating the cost of ongoing compliance and a margin for new drivers entering the workforce, we have estimated the following as our initial and ongoing cost of compliance.

	Initial	Ongoing
Driver Health compliance (80 Drivers + 60 DAs)	\$280,000	\$40,000

3.3 Annual levy

Section 127 of the TIA provides that Accredited Railways (Railway Managers and Railway Operators) are levied by the Regulator for the cost of Accreditation. The methodology for calculating accreditation fees is consistent for all railway operations and contemplates –

- a track kilometre charge, and
- a variable element based upon track kilometres run in the previous period.

Under this regime, Sucrogen might be reasonably exposed to the following annual levy.

If the total amount of estimated annual revenue is not more than A\$250 000 — nil

If the total amount of estimated revenue is more than A\$250 000 but not more than A\$500 000 — A\$750

	Projected Annual Sucrogen Exposure	
	Track Kilometres	Train Kilometres
If the total amount of estimated revenue is more than A\$500 000	344	508,662
A\$66 for each estimated kilometre of track managed under the accreditation for the year	\$22,704	
A\$0.08 for each estimated kilometre travelled in the provision of passenger and freight services under the accreditation for the year.		\$40,693
		\$63,397

The Train Kilometres have been calculated from information provided by Sucrogen.

	Initial	Ongoing
S127 - Annual Levy	\$63,397	\$63,397

3.4 Infrastructure, Systems, and Processes

From discussions with Sucrogen staff on Thursday 23-Jun-10 it was noted that rail safety infrastructure (signalling, train control, and communications) is generally reasonable for their own operations but most likely would not be sufficient to safely accommodate a third-party operator. Hence, it is proposed that minor enhancement might be justified to the existing train control centre to contemplate third-party operations.

**Study of the cost impact of compliance of Herbert River Cane
Railway Network with the Transport Infrastructure Act**

The existing rail infrastructure was described as seasonal – with only minor investment consistent with the level of traffic and availability of capital. Whilst this in no way suggests that safety is compromised (on the contrary, the rail network would appear to be well managed – but to a strict budget) it does provide that additional investment might be justified in the areas of –

- Train monitoring so as to ensure that overweight trains do not adversely impact on the track and formation, and that bridges and other infrastructure is not overloaded. This might reasonably be effected by in-motion weighbridges (perhaps 2) installed at critical track sections and monitored by the train control centre. Also, a system might be imposed upon all operators on the rail network for GPS transponders such that train control can monitor and manage any overspeed. Sucrogen presently operate under such a system but it would require additional vigilance with third-party operators sharing the track.
- Sucrogen staff presently inspect the rail infrastructure at the commencement of each season, and on an ad-hoc basis over the course of the season. Such inspection is (not surprisingly) centred upon Sucrogen’s own operations. Third-party operations on the rail network will require Sucrogen to be vigilant to safety and quality of the track infrastructure across the entire network.
- Train control is likely to require additional vigilance with access by a new operator. To this end, and in keeping with the requirements of the TIA, it is felt prudent to allow for an additional Train Controller in the existing control centre. Initial costs contemplate training and the costs of the Controller for the first year of service, with Ongoing costs covering salary and ongoing training thereafter.
- Level crossing protection has been highlighted as a particular concern for all railways. The impact of a new operator on the network is likely to increase this risk. To mitigate this risk, it is proposed that level crossing (Active) protection might be justified at perhaps 2-3 additional sections on the network.
- Occupational crossings (unprotected crossings of the track) were also highlighted for attention in the event of a new operator accessing the network. Our research suggests that at least 178 (given that the network appears to traverse around 178 properties) but perhaps more likely 300 (advice provided by Sucrogen) occupational crossings exist on the network. The introduction of a new operator will impose potential risks at these crossings. Hence, it is felt that additional protection (signage, vegetation control) would be justified and reasonable at each location.
- Approximately 250 load-outs exist on the network. These stations are typically on farm property, have no security from trespass (fencing), no signage, and may not have sufficient vegetation control necessary to provide visibility for a new operator. Given the high-risk nature of such sites to a new operator and (shared) third-party operations, it is proposed that fencing, signage, and increased vegetation control would be justified so as to meet minimum rail safety standards. It was also proposed that load-out operations might also be conducted at night during peak seasons. We have not considered the cost of fixed infrastructure (lighting) at each of these load outs as, in practice, only temporary transportable lighting might be justified.

The following table summarises our estimate to initially meet and then maintain these elements.

	Initial	Ongoing
Further development of Signalling, Train Control, and Comms	\$150,000	\$37,500
Increased track inspection regime	\$50,000	\$25,000
Train monitoring - overweight and overspeed	\$250,000	\$50,000
Additional Train Controller	\$125,000	\$100,000

**Study of the cost impact of compliance of Herbert River Cane
Railway Network with the Transport Infrastructure Act**

	Initial	Ongoing
Level crossing protection	\$250,000	\$37,500
Occupational crossing protection (300 identified Occ Crossings)	\$450,000	\$45,000
Load-Out Station protection (250 identified load-out stations)	\$1,250,000	\$125,000

3.5 Development of Rail Access Regime

The Accredited Railway Manager is responsible for the provision of the rail network to a safe standard. Consequently, this entails the development of an ongoing maintenance regime consistent with reinvestment in the infrastructure. Hence, the third-party operator seeking access to the Railway Manager's infrastructure can be assured of a reinvestment regime and maintenance to meet safe operating standards.

At a minimum, the access tariffs should reflect a commercial return to the Railway Manager. From a more objective standpoint, there should exist a clear linkage between the operations on the rail network, the (efficient) cost of providing such infrastructure, and hence the maintenance regime which underpins this.

The table below seeks to illustrate our opinion of the cost of development of access documentation and agreements (which would of course be ultimately developed by lawyers and commercial advisors) but is provided here to demonstrate the cost of compliance and the linkage between such agreements and documents and the operating rail network.

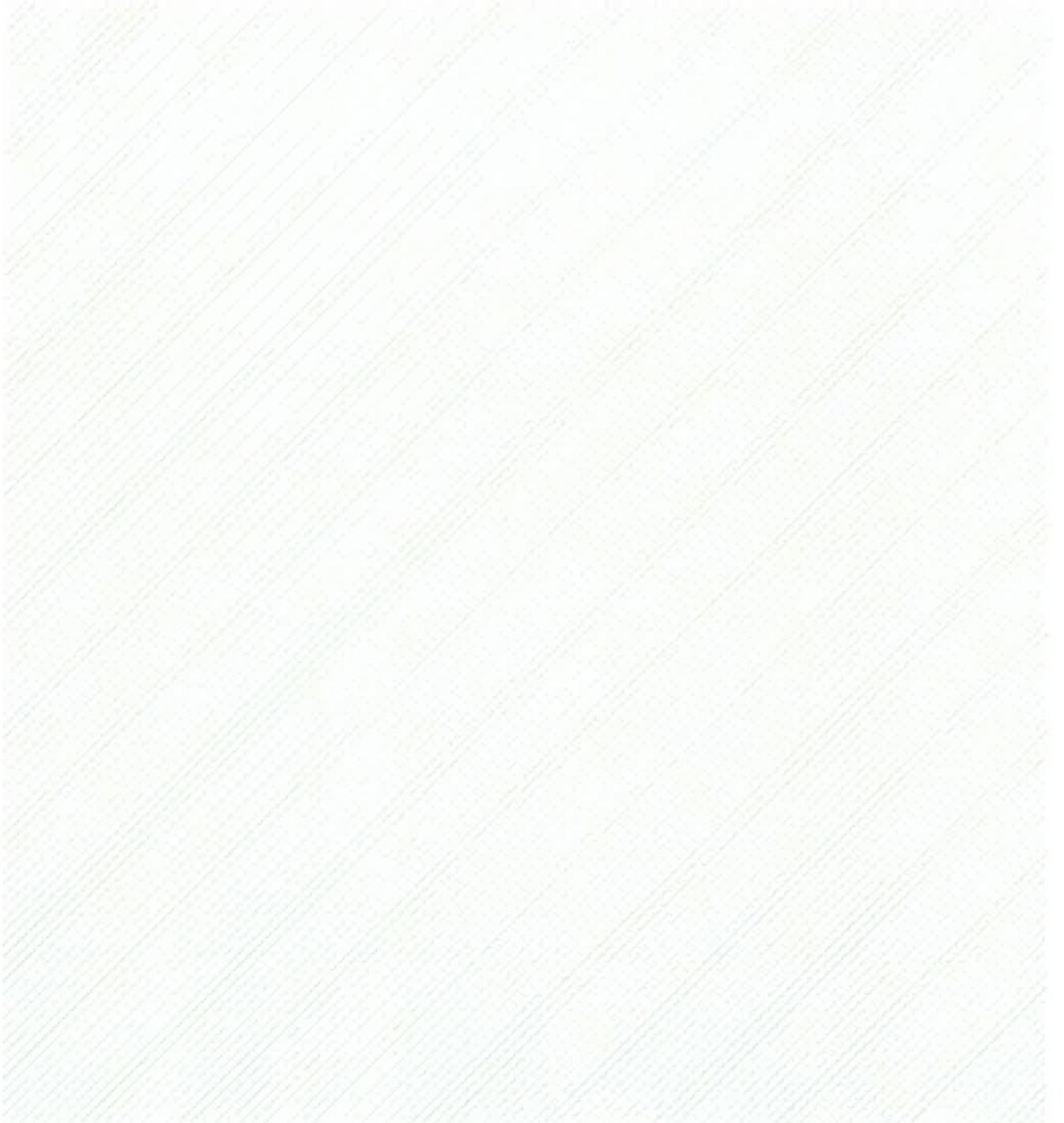
Whilst the following constitutes our opinion, we are not qualified to provide advice on legal and commercial matters and hence Sucrogen might wish to clarify their position on this matter.

	Initial	Ongoing
Documentation + Agreements (legal and commercial)	\$250,000	\$12,500
Determination of Access Tariffs	\$25,000	\$6,250



Appendix A

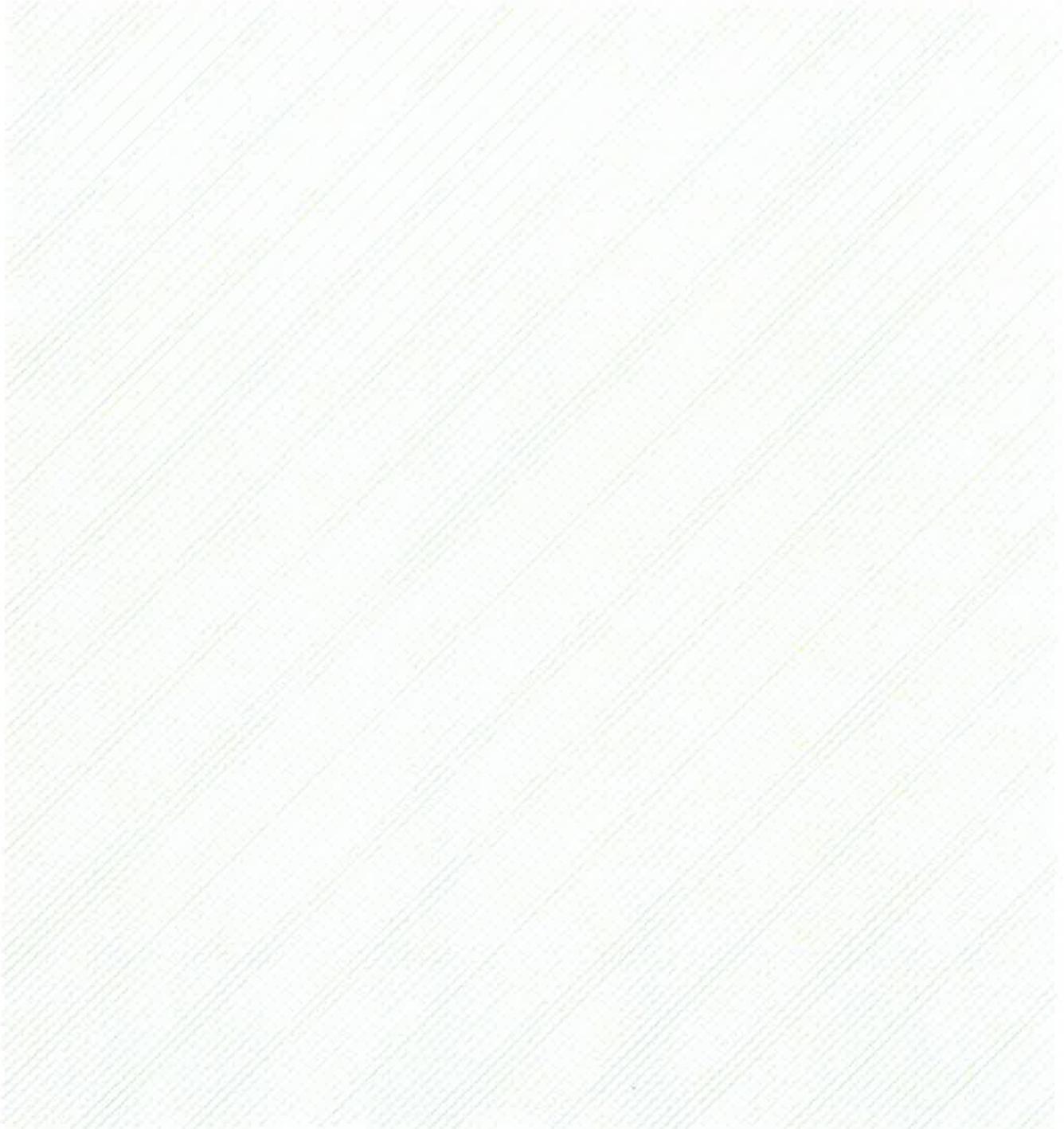
Sucrogen Herbert Region - Rail Network





Appendix B

Base Documents Provided by Sucrogen



Study of the cost impact of compliance of Herbert River Cane Railway Network with the Transport Infrastructure Act

Appendix B

Source/Author	Title	Date	Reference
Sucrogen (Herbert) Pty Ltd	Submission to National Competition Council	[undated]	\\bnedc01\Corrs_My_Documents\11200\My Documents\PDF_Temp\CORRSDMS-#5432475-v1ASucrogen_submission_to_NQBE.DOC
National Competition Council	Herbert River cane railway, Application for declaration of a service provided by the Herbert River cane railway	1 June 2010	Draft Recommendation
Sucrogen Herbert Mills Sucrogen HBT26	Sucrogen Herbert Region - Rail Network [map]	6 April 2010	Map produced by J. Jardine 06/04/2010
Peter Allen <i>Grower Relations Mgr, cane products, Sucrogen Level 1, 5-21 Denham St, Townsville, Qld 4810, Aus</i>	Information Relating To Ownership & Tenure Over Land	[undated]	Sidings and Rail NCC.pdf
	Operations At Herbert Mills Sidings	[undated]	Sidings 101.pdf
Mark Moriarty Manager, Business Development, Sucrogen	Herbert Loco Service Kilometres.xls	25 June 2010	Herbert Loco Service Kilometres.xls <i>(Content illustrated below)</i>

<u>VRA Cane - Service klms per Day delivery and return trips</u>							
	Run 1	Run 2	Run 3	Total Klms	20wk crush klms	22wk crush klms	24wk crush klms
Adelaide	110	94		204			
Gowrie	106	106		212			
Townsville	94	110		204			
Maitland	70	92	92	254			
Herbert	70	70	80	220			
Cairns	60	60	75	195			
Jourama	70	80	68	218			
Victoria	75	63	56	194			
Wallaman	58	70	64	192			
Homebush	80	68	76	224			
Canberra	64			64			
Ingham	64			64			
				<u>2245</u>	<u>314300</u>	<u>345730</u>	<u>377160</u>

<u>MKD Cane - Service klms per Day delivery and return trips</u>							
	Run 1	Run 2	Run 3	Total			
Mkd 20	36	46	36	118			
MKD 19	40	36	36	112			
Darwin	60	76	50	186			
MKD 11	40	54	48	142			
MKD 12	44	38		82			
Hobart	46			46			
MKD 16	60			60			
				<u>746</u>	<u>104440</u>	<u>114884</u>	<u>125328</u>
					<u>418740</u>	<u>460614</u>	<u>502488</u>

<u>VRA & MKD Sugar - Service klms per Day delivery and return trips</u>							
	Run 1	Run 2	Run 3	Total			
Clemmac	50	100	50	200			
MKD 14	28	56	28	112			
				<u>312</u>	<u>43680</u>	<u>48048</u>	<u>52416</u>
					<u>462420</u>	<u>508662</u>	<u>554904</u>

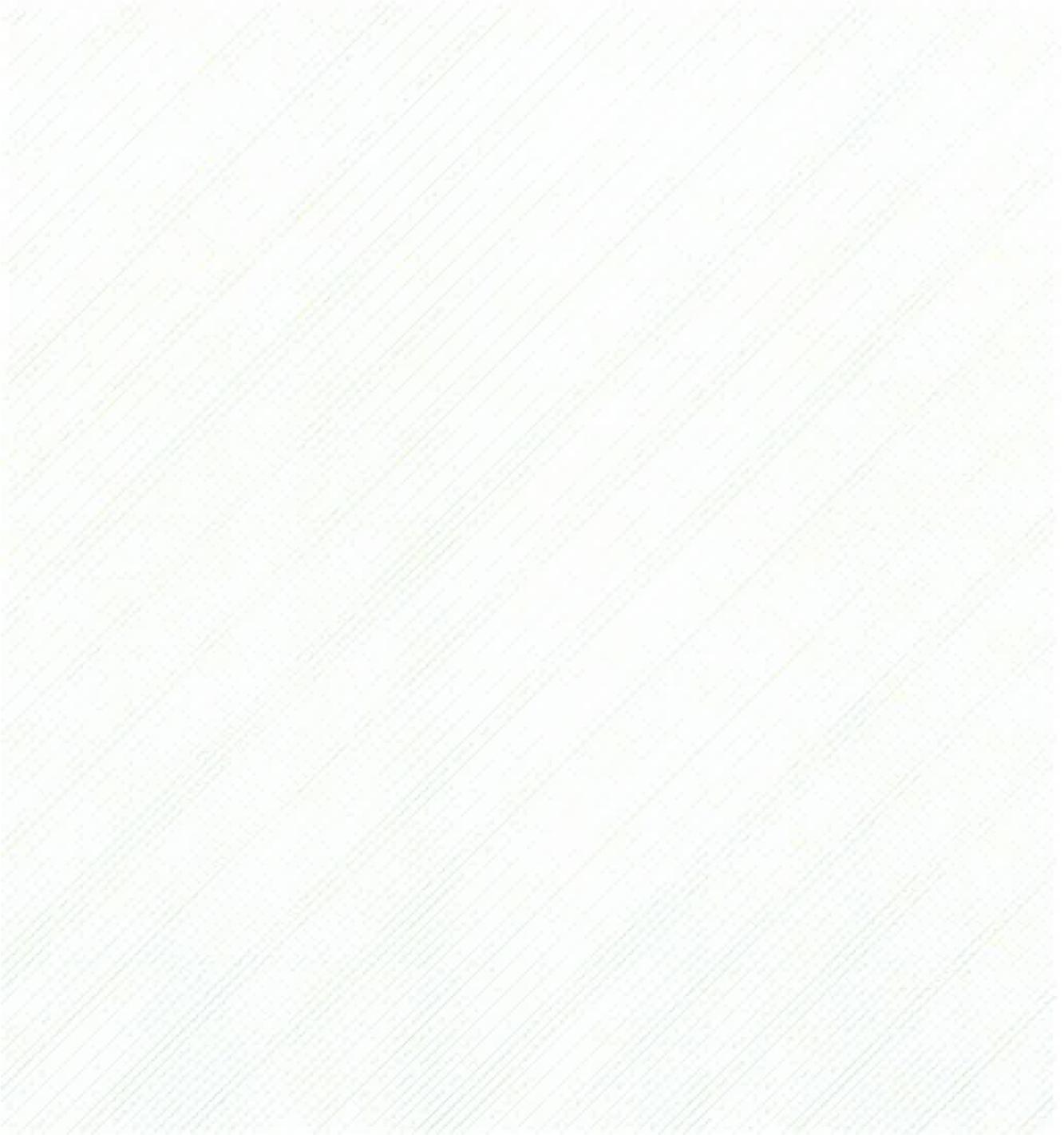
Study of the cost impact of compliance of Herbert River Cane
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Source/Author	Title	Date	Reference
Muir James Watson Consultant, Sucrogen	Herbert Railway Insurance Cost.xls	28 June 2010	Herbert Railway Insurance Cost.xls (Content illustrated below)
Herbert Railway Insurance Cost			
Insurance Cost Summary			
Component	Number		
Total insurance cost (\$k)	6,237.1		
Premium tax + terrorism	10.4%		
Broker costs (\$k)	100.0		
Total insurance cost (\$k)	6,987.1		
Third party track usage	35.7%		
Additional insurance costs (\$k)	2,495.4		
Policy	Assets (\$m)	Conseq (\$m)	TIV (\$m) Rate (\$/m) Cost (\$k)
Public Liability	350	-	350 927.9 324.8
Industrial & Special Risks			
Track	179.5	-	179.5 500.0 89.8
Bridges	1,320.0	-	1,320.0 4,000.0 5,280.0
Signals	22.3	-	22.3 500.0 11.1
Road Crossings	13.0	-	13.0 500.0 6.5
Cost of \$3.5m self-insured retention	-	-	- 525.0
Total	1,884.8		1,884.8 6,237.1
All insurance rates are estimates, formulated in discussions between Sucrogen & Marsh			
Actual bridges insurance rate quote from FM Global on 25/3/09 for 7 bridges, with \$3.5m deductible, was \$22,500 per million			
Track Usage	mm tonnes pa	%	
Sucrogen	4.5	64.3%	
Third Party	2.5	35.7%	
Total	7.0	100.0%	
Track & Signals Asset Value			
Track	Length (km)	Value (\$m)	
Mainline	327.0	105.4	
Sidings	186.9	60.3	
Loops/Yarding	42.9	13.8	
Track Total	556.8	179.5	
Signals	-	22.3	
Total	556.8	201.8	
Invicta value per CBRE:			
\$79m for 245km	322,449	per km	
Signals value estimate	40,000	per km	
Bridges Asset Value			
Type	Number	Value (\$m)	
Steel	71	1,065.0	
Concrete	17	255.0	
Total	88	1,320.0	
Steel bridge value:			
Per Abergowrie	25,000,000		
Scale to average size	15,000,000		
Concrete bridge value for Invicta per CBRE:			
Range \$12-39m			
Average	24,500,000		
Scale to average size	15,000,000		
Road Crossings Asset Value			
Type	Number	RC (\$K)	Value (\$m)
Active	44	100	4.4
Passive	104	20	2.1
Occupational (estimate)	1,300	5	6.5



Appendix C

Estimated Cost of Compliance of Herbert River Cane Railway Network with the TIA



Appendix C – Estimated Cost of Compliance of Herbert River Cane Railway Network with the TIA

Total Projected Costs	Capital - Start-Up	Annual Ongoing Costs
	\$10,680,000	\$7,650,000
Development of Standards		
Documentation	\$250,000	\$25,000
Development of SMS		
Documentation	\$250,000	\$50,000
Development/Implementation of more formalised Risk Management Regime	\$25,000	\$25,000
Development/Implementation of more formalised Incident Management Regime	\$20,000	\$20,000
Infrastructure, Systems, and Processes		
Further development of Signalling, Train Control, and Comms	\$150,000	\$37,500
Increased track inspection regime	\$50,000	\$25,000
Train monitoring - overweight and overspeed	\$250,000	\$50,000
Additional Train Controller	\$125,000	\$100,000
Level crossing protection	\$250,000	\$37,500
Occupational crossing protection (300 identified Occ Crossings)	\$450,000	\$45,000
Load-Out Station protection (250 identified load-out stations)	\$1,250,000	\$125,000
Development of Rail Access Regime		
Documentation + Agreements (legal and commercial)	\$250,000	\$12,500
Determination of Access Tariffs	\$25,000	\$6,250
Compliance Costs		
S127 - Annual Levy	\$63,397	\$63,397
Driver Health compliance (80 Drivers + 60 DAs)	\$280,000	\$40,000
Insurance Costs		
Infrastructure risk cover	\$6,987,100	\$6,987,100

Confidential Attachment C