Hon. Ben Wyatt MLA

Treasurer; Minister for Finance; Energy; Aboriginal Affairs

Coverage of the Horizon Power electricity network in the North West Interconnected System

Draft Coverage Decision

27 November 2017

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1. Draft Coverage Decision

On 4 August 2017 Alinta Energy applied under Chapter 3 of the *Electricity Networks Access Code 2004* (Code) for coverage of Horizon Power's electricity transmission and distribution assets in the North West Interconnected System (NWIS). On 15 September 2017 I published an Issues Paper and called for submissions in respect to the Coverage Application.

Having considered the Coverage Application, the submissions provided by stakeholders and other available information, **I propose to make a decision that the Horizon Power NWIS network that is the subject of the Coverage Application be covered under the Code**. My reasons for this position are set out in this Draft Coverage Decision.

I encourage stakeholders and any other interested persons to make submissions in respect to this Draft Coverage Decision.

Submissions must be provided by 5:00pm on 18 December 2017 (AWST).

Electronic copies of submissions are preferred and should be emailed to:

PUOsubmissions@treasury.wa.gov.au.

Alternatively, submissions may be sent to:

Attn: Noel Ryan
Public Utilities Office
Department of Treasury
Locked Bag 11
Cloisters Square WA 6850

Further information about the Coverage Application process is available on the Department of Treasury website:

http://www.treasury.wa.gov.au/Public-Utilities-Office/Open-consultations-reviews/Electricity-Networks-Access-Code-Coverage-Application/.

2. Procedural matters

2.1 Regulatory regime

Part 8 of the *Electricity Industry Act 2004* (Act) and the Code establish a regulatory regime for third party access to electricity transmission and distribution networks in Western Australia. Under these arrangements, an electricity network is not subject to access regulation unless the Minister for Energy (Minister) has made a determination that the network be covered under the Code. The only network currently covered under the Code is the network owned by Western Power within the South West Interconnected System (SWIS).

Operators of covered networks are required to have an access arrangement approved by the Economic Regulation Authority (ERA), which sets out the prices and other conditions for access to the network. The access arrangement also establishes procedures by which prospective network users can seek to access the network in a facilitated manner. Disputes between persons seeking access to a covered network can be referred to the Western Australian Energy Disputes Arbitrator, who is empowered to make a binding determination as to the terms and conditions for access to the network.

These arrangements are intended to encourage efficient third party access to covered networks, for the purpose of facilitating competition in markets that are related to the market for services provided by means of those networks (for example, retail and generation markets).

On 17 July 2006, the relevant Commonwealth Minister[1] made a decision under section 44N of the *Competition and Consumer Act 2010* (CCA) to certify the Western Australian third party access regime for electricity network services as an effective access regime for a period of 15 years. Accordingly, services that are subject to the regulatory regime created under the Act and Code cannot be the subject of a declaration under the national access regime set out in Part IIIA of the CCA.

2.2 Coverage Application

Section 3.8 of the Code states that a person may make a coverage application to the Minister requesting that the whole or part of an electricity network be covered. On 4 August 2017, Alinta Energy made an application to me for coverage under the Code of the electricity transmission and distribution assets currently owned by Horizon Power within the NWIS.

2.3 The network and services that are the subject of the Coverage Application

Description of the network

In its coverage application Alinta Energy states that the network for which it seeks coverage is located in the Pilbara region of Western Australia, is owned by Horizon Power and is part of the NWIS.[2] Alinta Energy describes the NWIS as follows:

> "The NWIS is an extensive system in the Pilbara consisting of interconnected electricity facilities and infrastructure owned and operated by various private and government interests. See for

[1] Mr Chris Pearce, Parliamentary Secretary to the Treasurer.

[2] Alinta Energy, *Network Coverage Application – Horizon Power network assets that form part of the North West Interconnected System,* 4 August 2017 (Alinta Energy Coverage Application), 1.

example the definition below from section 2 of the *Electricity Transmission and Distribution Systems (Access) Act 1994* (WA):

> ***North West interconnected system*** *means the interconnected transmission and distribution systems, generating works and associated works –*
>
> *(a) located in the Pilbara region of the State; and*
>
> *(b) Into which electricity is supplied by one or more of the electricity generation plants at Dampier, Port Hedland and Cape Lambert, as expanded or altered from time to time.*

Horizon owns and operates a specific portion of the NWIS, referred to in this application as the 'Horizon NWIS Network'. Alinta seeks coverage of the Horizon NWIS network only, not the broader NWIS."

Alinta Energy further states at page 5 of its Coverage Application that:

> "Alinta seeks access to the network that comprises the electricity transmission and distribution assets currently owned and operated by Horizon that form part of the NWIS, which in this application is referred to as the Horizon NWIS Network."

From its coverage application and subsequent submission of 16 October 2017, it is clear that Alinta Energy is seeking coverage of all of the electrically interconnected network infrastructure facilities (transmission and distribution) owned by Horizon Power and located in the Pilbara region of Western Australia. For the avoidance of doubt, this includes:

- all of Horizon Power's network infrastructure in the West Pilbara area, which supplies customers located in and around Karratha, including the connections to the Port of Dampier, Cape Lambert, Point Samson and Roebourne;
- all of Horizon Power's network infrastructure in the East Pilbara area, which supplies customers in and around greater Port Hedland, including the connections to the port operations of BHP Billiton and Fortescue Metals Group;
- the transmission line that connects Horizon Power's network infrastructure in the West Pilbara and East Pilbara areas; and
- the transmission line that runs from Port Hedland to the site of the former mining town of Goldsworthy.

Alinta Energy's coverage application does not extend to any of the privately owned network infrastructure that is interconnected with Horizon Power NWIS network (for example, the infrastructure owned by of BHP Billiton, Rio Tinto or Fortescue Metals Group).

In this Draft Coverage decision, the network that is the subject of the Coverage Application is referred to as the 'Horizon Power NWIS network'.

Description of the services

The phrase 'covered service' is defined in section 1.3 of the Code as:

> "a service provided by means of a covered network, including:
>
> (a) a connection service; or
>
> (b) an entry service; or
>
> (c) a network use of system service; or

(d) a common service; or

(e) a service ancillary to a service listed in paragraphs (a) to (d) above.

but does not include an excluded service."

In its Coverage Application Alinta Energy states that if the Horizon Power NWIS network is covered, Alinta Energy proposes to acquire at least the covered services (a) to (d) above on the Horizon Power NWIS network. Alinta Energy says that none of the services it seeks to acquire would constitute excluded services.

2.4 Coverage Application process

Sections 3.8 to 3.29 of the Code set out the process that must be observed by the Minister in making a coverage decision following receipt of a coverage application. Pursuant to this process, Alinta Energy's coverage application was published on the Department of Treasury website and advertised in the West Australian newspaper on 17 August 2017 and 18 August 2017 respectively.

An Issues Paper examining the issues raised in connection with the coverage application was published on the Department of Treasury website on 15 September 2017. The Issues Paper invited interested persons to provide submissions by 2 October 2017. On 1 October 2017, pursuant to section 3.27 and 3.28 of the Code, I extended the deadline for the making of submissions by 10 business days, to 16 October 2017.

Submissions were received from the following stakeholders:

- Alinta Energy;
- ATCO Australia;
- Fortescue Metals Group;
- Horizon Power;
- Rio Tinto Iron Ore; and
- Transalta Energy Australia.

One late submission was also received on 24 October 2017, from the Chamber of Minerals and Energy of Western Australia.

Under the Code, the initial deadline for the publication of this Draft Coverage Decision was 6 November 2017. On 5 November 2017, pursuant to section 3.27 and 3.28 of the Code, I extended the deadline for the publication of this Draft Coverage Decision by 15 business days, to 27 November 2017.

I have made this Draft Coverage Decision having regard to Alinta Energy's coverage application, the submissions received in response to the Issues Paper and other presently available information. My consideration of the matters discussed in this Draft Coverage Decision may change in my Final Coverage Decision. I may also have regard to any relevant additional matters that come to my attention. My reasons for decision (or my Final Coverage Decision) may change in light of my further consideration of the matters discussed in these reasons and my consideration of any additional relevant matters.

Interested persons are invited to make submissions in response to this Draft Coverage Decision by 5:00pm on 18 December 2017 (AWST).

Following the deadline for submissions to this Draft Coverage Decision, I am required to consider any submissions made, and make a Final Coverage Decision by 11 January 2018. In making the Final Coverage Decision, I must specify a date that the decision becomes effective, which must not be earlier than 10 business days after the date the decision is published.

3. Coverage criteria

3.1 The three criteria

The 'coverage criteria' to which I must have regard in making a coverage decision are set out in section 3.5 of the Code. That section requires me to decide that the Horizon Power NWIS network be covered if I decide that the following three questions (the "coverage criteria") should be answered affirmatively:

(a) Would access (or increased access) to covered services provided by means of the network promote a material increase in competition in at least one market (whether or not in Western Australia) other than the market for the covered services provided by means of the network?

(b) Would it be uneconomic for anyone to develop another network to provide the covered services provided by means of the network?

(c) Would access (or increased access) to the covered services provided by means of the network not be contrary to the public interest?

Section 3.6 of the Code requires me, when exercising functions under Chapter 3 of the Code, to have regard to the geographical location of the network and the extent (if any) to which the network is interconnected with other networks.

Further, in exercising any function under the Code, including the making of a coverage decision, I am required to have regard to the Code objective.[3] The Code objective is set out in section 2.1 of the Code and is as follows:

> "The objective of this Code **("Code objective"**) is to promote the economically efficient:
>
> (a) investment in; and
>
> (b) operation and use of,
>
> networks and services of networks in Western Australia in order to promote competition in markets upstream and downstream of the networks."

After having regard to the Code's coverage criteria, the matters set out in section 3.6 of the Code and the Code objective, I propose to make a decision that the Horizon Power NWIS network be covered under the Code. My detailed reasons for this position are set out in sections 4, 5, 6 and 7 of this Draft Coverage Decision.

3.2 Applying the criteria

Consistent with the objectives of Part 8 of the Act, which are to provide access to services and give effect to the relevant principles of the Competition Principles Agreement[4] (**CPA**), the coverage criteria in the Code have their origins in and align with the "access to services" clauses of the CPA (as do the declaration criteria in s44H(4) of the CCA). The relationship

[3] *Electricity Networks Access Code 2004* s 2.2.

[4] A copy of the CPA is available on the Australian Competition Law website: http://www.australiancompetitionlaw.org/legislation/cpa.html

between the CPA and the declaration criteria in the CCA have been identified and described at length in several leading decisions considering the CCA declaration criteria.[5]

The coverage criteria in sub-sections 3.5(a), (b) and (c) of the Code essentially differ from the CCA declaration criteria in s44H(4)(a), (b) and (f) only −

1. in so far as the coverage criteria in the Code are specifically concerned with access to electricity networks rather than access to essential facilities more generally; and
2. in some relatively minor matters of grammatical expression (the coverage criteria being framed in terms of several questions to be answered affirmatively or negatively while the CCA criteria are "matters" in respect of which the designated Commonwealth Minister must be satisfied).

There can be little doubt that the coverage criteria of the Code and the declaration criteria of the CCA (if, hypothetically, they were matters considered in response to the Coverage Application) would involve substantially similar, if not identical, inquiries, assessments and determinations. For these reasons, principles of interpretation developed through judicial consideration of the criteria in s44H(4) of CCA are clearly relevant and authoritative in determining how the coverage criteria of the Code are to be applied and this Draft Coverage Decision follows those principles accordingly.

I note that the declaration criteria in s 44H(4) of the CCA have been recently considered by both the Productivity Commission[6] and Harper Review[7], each of whom recommended changes. The Commonwealth Parliament recently passed legislation[8] to implement numerous reforms recommended by the Harper Review, including substantial amendments to each of the declaration criteria set out in sections 44H(4)(a), (b) and (f) of the CCA. I consider that neither the views of the Harper Review and Productivity Commission on the desirability of reorienting the CCA declaration criteria, or the subsequent legislative action of the Commonwealth to that end, alter the tests I should apply under section 3.5 of the Code. Accordingly I have applied these tests in a manner consistent with the jurisprudence concerning the comparable CCA declaration criteria as they existed prior to the recent amendments.

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5 See, for example, *Sydney Airport Corporation Ltd v Australian Competition Tribunal* [2006] FCAFC 146, at [3]-[21] and [86]; *Port of Newcastle Operations Pty Ltd v Australian Competition Tribunal* [2017] FCAFC 124 at [91]-[106].

6 Productivity Commission 2013, National Access Regime, Inquiry Report No.66, Canberra, page 19. https://www.pc.gov.au/inquiries/completed/access-regime/report/access-regime.pdf.

7 Harper, Anderson, McCluskey and O'Bryan QC, "Competition Policy Review", Final Report, March 2015, http://competitionpolicyreview.gov.au/final-report/.

8 *Competition and Consumer Amendment (Competition Policy Review) Act 2017* (Cth), received assent on 27 October 2017.

4. Criterion (a): Promotion of a material increase in competition

4.1 The criterion

Criterion (a) of section 3.5 of the Code asks:

> (a) Would access (or increased access) to covered services provided by means of the network promote a material increase in competition in at least one market (whether or not in Western Australia) other than the market for the covered services provided by means of the network?

4.2 Alinta Energy's views

In its coverage application Alinta Energy submits that access to covered services provided by means of the Horizon Power NWIS network would promote a material increase in competition in the market for retail supply of electricity to customers who receive electricity through the Horizon Power NWIS network. Alinta Energy explains that it uses the term 'retail' in the sense it is used in the Act, being the general concept of selling electricity to customers, and that it may sell electricity to customers with loads of 160 MWh per year or greater under its existing retail licence.[9]

Alinta Energy states that competition in the market for the generation of electricity supplied by means of the Horizon Power NWIS network may also be promoted by coverage of that network. It says that access to the Horizon Power NWIS network, and the associated increase in the potential customers able to be supplied by other retailers is likely to lead to increased competition in that generation market, since there will be more retailers for generators to sell electricity to.

Alinta Energy submits that full retail contestability exists in the NWIS because there is no regulatory prohibition on retailers entering the market to supply retail loads of any size, and there are a range of regulatory instruments in place to facilitate the retail sale of electricity. Alinta Energy points to its electricity retail licence and its access to electricity from its Port Hedland Power Station as indicators of its capacity to supply customers in the Horizon Power NWIS retail market. Alinta Energy claims that the inability to obtain access to the Horizon Power NWIS network is the only factor preventing it from entering the Horizon Power NWIS retail market and so competing to supply customers connected to the network.

Alinta Energy states that electricity consumers currently supplied through the Horizon Power NWIS network have expressed interest in the opportunity to choose between retailers, and that Alinta Energy has pre-signed electricity contracts with four customers since 2016.

Alinta Energy estimates that coverage of the Horizon Power NWIS network could result in new entrants acquiring a 30 per cent market share in Horizon Power's large-use tariff customers[10] over a 15 year period. In terms of electricity volume, Alinta Energy estimates that new entrants

[9] Alinta Energy, *Issues paper – Coverage of Horizon Power electricity network in the North West Interconnected System, Alinta Energy Submission*, 16 October 2017 (Alinta Energy Submission), 10.

[10] More specifically, customers supplied on the L4 and P2 tariffs, and customers who were previously supplied on the M2 tariff.

could supply at least 80 GWh per annum in the first 10 years of competition, growing to 110 GWh per annum after 15 years of competition.

Alinta Energy submits that the estimated load acquisition by new entrants of 80 GWh to 110 GWh per annum would comprise a significant portion of the electricity customers supplied through the Horizon Power NWIS network, representing a material increase in competition as compared with the alternative where Horizon Power remains the monopoly retailer.

4.3 Stakeholder views

Horizon Power was the only stakeholder to specifically address criterion (a), although other businesses were generally supportive of Alinta Energy's application.[11]

Horizon Power's view is that coverage of the Horizon Power NWIS network only will not materially increase competition because:[12]

- it would not be profitable for new entrant retailers without existing generation assets to compete because Horizon Power makes a loss on supplying Uniform Tariff Policy (UTP) customers; and
- Horizon Power would lose its subsidy on a UTP customer if it supplied that customer at a price that was less than the UTP price. Therefore, it would not be in Horizon Power's interest to compete against Alinta Energy to reduce the price for UTP customers. As a result, there would be a substitution of one monopoly provider (Horizon Power) for another (Alinta Energy).

4.4 Application of criterion (a)

Identifying the dependent markets

Retail electricity customers (whatever the size of their load or level of consumption) connected to the Horizon Power NWIS network appear to comprise a market that is dependent on access to the network for those customers to be served. I refer to this as the Horizon Power NWIS retail market and, as Alinta Energy rightly points out, full retail contestability does, at least in principle, exist in the NWIS.[13]

Horizon Power is the electricity retailer for almost all the customers connected to the Horizon Power NWIS network. Alinta Energy currently has access to limited services on a specific section of the Horizon Power NWIS network in the Port Hedland region of the NWIS under an existing agreement for the sole purpose of supplying a single large user (BHP Billiton).[14]

Table 1 shows that electricity users connected to the Horizon Power NWIS network comprise a large number of residential customers and a relatively small number of large and medium

[11] See ATCO Australia, *Letter to Mr Zaeen Khan Re: Issues paper: coverage application by Alinta Energy*, 16 October 2017; Fortescue Metals Group, *Letter to Mr Zaeen Khan Re: Issues paper: coverage application by Alinta Energy*, 16 October 2017 and TransAlta Energy Australia*, Letter to Minister for Energy Re: Coverage of the Horizon Power electricity network in the North West Interconnected System – Issues paper submission*, 14 October 2017.

[12] Horizon Power, *Horizon Power's submission in response to the Issues Paper – Coverage of the Horizon Power transmission and distribution network in the Pilbara*, 16 October 2017 (Horizon Power Submission), 6, 7 and 32.

[13] No order under s54 of the *Electricity Corporations Act 2005* (WA) has been made preventing to use of the Horizon NWIS Network for supply of electricity to a prescribed class of customer by anyone other than Horizon Power.

[14] Horizon Power Submission, 28.

sized businesses, with the latter making up a very substantial proportion of the electrical energy conveyed on the network.

Table 1: Horizon Power NWIS Customer Profile

Market segment	Number of accounts	Annual sales volume (GWh)
Residential customers (Tariff A2 and K2)	14,031	159
Small business customers (Tariff L2)	1,132	25
Medium business customers (Tariff L4)	389	99
Large customers	11	136
Government – medium business customers	158	41
Other tariff classes	58	8
Total	15,779	468

Source and notes: Information provided by Horizon Power on 31 August 2017. This information also represents all the customers in the Horizon Power NWIS retail market, apart from BHP Billiton.

It is likely that there is also a market for the wholesale supply of electricity by generators connected to the Horizon Power NWIS network. However, my decision does not depend on whether access (or increased access) to covered services provided by means of the Horizon Power NWIS network promotes a material increase in competition in this second potential market, and so I do not discuss this market in any further detail.

Criterion (a) cannot be satisfied unless the dependent market in which competition is promoted is separate from the market for the covered services provided by means of the network. For the purpose of Alinta Energy's application it is necessary to determine whether the Horizon Power NWIS electricity retail market is functionally separate from the market for the electricity conveyance services provided by the Horizon Power NWIS network.

In assessing matters in relation to 44G(2)(a) of the CCA,[15] the Australian Competition Tribunal (Tribunal) has taken an approach that asks whether the complementarities of vertical integration between the provision of two products are such as to dictate that they should be provided together – in which case, they are part of the same functional market, that is, they are not functionally separate.[16]

The Tribunal has set out its approach to determining this question as involving two considerations, that is:

- the existence of actual transactions by vertically separate firms as being strong evidence of the existence of separate functional markets;[17]

[15] Section 44G(2)(a) of the CCA is comparable to section 3.5(a) of the Code.
[16] *Application by Services Sydney Pty Limited* [2005] ACompT 7, para 117.
[17] *In the matter of Fortescue Metals Group Limited* [2010] ACompT 2, para 1037.

- where there are no actual transactions taking place:
  - the functional levels should be held as being one when in-house provision is always more profitable than if one component was purchased from a third party;[18] and so
  - the functional levels should be held as being separate when the purchase of one component from a third party would be more profitable in some circumstances.

In other words, functional levels are combined when vertical integration is inevitable, or overwhelmingly efficient.[19] Evidence that can be used to examine whether vertical separation may be efficient in some circumstances includes:[20]

- evidence of functional splits in similar situations, for example, in other geographic locations; and
- evidence of demand for the functionally separate service.

Horizon Power presently provides access to the Horizon Power NWIS network so that Alinta Energy can supply one customer. This amounts to a transaction between two vertically separate firms, that is, Horizon Power provides the network services and Alinta Energy the retail services.

Further, vertical integration does not appear to be inevitable or overwhelmingly efficient because:

- the retailing of electricity is provided separately from transmission and distribution in most parts of Australia other than Western Australia;[21] and
- Alinta Energy is seeking access to the Horizon Power NWIS network and has sought to do so for some time.

Therefore, I find that the Horizon Power NWIS retail market is functionally separate from the market for the services provided by the Horizon Power NWIS network, and so it is relevant for Criterion (a) to examine whether competition is promoted in this market.

Would access promote competition?

With and without test

Criterion (a) requires a comparison of the future state of competition in the dependent market:

- with a right or ability to use the service; and
- without any right or ability, or with a restricted right or ability to use the service.[22]

In this case, the comparison is between the future state of competition in the Horizon Power NWIS retail market:

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18 *In the matter of Fortescue Metals Group Limited* [2010] ACompT 2, para 1046.
19 *In the matter of Fortescue Metals Group Limited* [2010] ACompT 2, para 1044.
20 *In the matter of Fortescue Metals Group Limited* [2010] ACompT 2, para 1047.
21 Power and Water Corporation in the Northern Territory retails electricity to a small number of mining towns, and operates an electricity network. Power and Water Corporation, *2016-17 Annual Report*, p 9. Energy Queensland builds and maintains the electricity distribution network for regional Queensland, in addition to being the retailer in those regions. See: Energy Queensland, *Annual Report 2016-17*, p 2.
22 *Sydney Airport Corporation Ltd v Australian Competition Tribunal* [2006] FCAFC 146, para 83. See also: *Port of Newcastle Operations Pty Ltd v Australian Competition Tribunal* [2017] FCAFC 124, paras 138-139.

- with third parties having access to the Horizon Power NWIS network; and
- with third parties having no access to the Horizon Power NWIS network.

Promotion of competition

The notion of promoting competition does not require that competition would be increased.[23] Rather, it requires that the conditions or environment for competition are improved.[24] As the Tribunal has explained in relation to s 44H(4)(a) of the CCA:[25]

> "it is concerned with the removal of barriers to entry which inhibit the opportunity for competition in the relevant downstream market. It is in this sense that the Tribunal considers that the promotion of competition involves a consideration that if the conditions or environment for improving competition are enhanced, then there is a likelihood of increased competition that is not trivial."

Similarly, the Tribunal has emphasised that even though access will not remove all barriers to entry and that actual entry may still be difficult with access, criterion (a) can still be satisfied if access would remove a significant barrier to entry and thereby promote competition, that is:[26]

> "The Tribunal has expressed a view in the past that the promotion of competition test does not require it to be satisfied that there would necessarily or immediately be a measurable increase in competition. Rather, consistent with the purpose of Pt IIIA being to unlock bottlenecks in the supply chain, declaration is concerned with improving the conditions for competition, by removing or reducing a significant barrier to entry. Other barriers to entry may remain and actual entry may still be difficult and take some time to occur, but as long as the Tribunal can be satisfied that declaration would remove a significant barrier to entry into at least one dependent market and that the probability of entry is thereby increased, competition will be promoted."

Third parties being able to access the Horizon Power NWIS network is essential to allow them to compete in the Horizon Power NWIS retail market and so:

- there is the potential for entry into the Horizon Power NWIS retail market if third parties have access to the Horizon Power NWIS network; and
- there will only be one supplier with no potential for entry if third parties have no access to the Horizon Power NWIS network.

I therefore conclude that the conditions or environment for competition in the Horizon Power NWIS retail market are improved with access to the Horizon Power NWIS network being available.

Horizon Power has stated that competition would not be promoted because one monopoly provider (Horizon Power) would be replaced by another one (Alinta Energy).[27] I do not draw any conclusion on the validity or strength of this assertion but in any event prefer the view that access to the Horizon Power NWIS network would remove a significant barrier to entry into

[23] *Re Sydney International Airport* (2000) 156 FLR 10, para 106.
[24] *Re Sydney International Airport* (2000) 156 FLR 10, paras 106-107.
[25] *Re Sydney International Airport* (2000) 156 FLR 10, para 107. Section 44H(4)(a) is equivalent to section 3.5(a) of the Code.
[26] *Re Services Sydney Pty Limited* [2005] 227 ALR 140, para 131.
[27] Horizon Power Submission, 32.

the Horizon Power NWIS retail market, and so the conditions or environment for competition are improved.

It is not necessary for me to reach a conclusion that competition would necessarily or immediately be increased in order to find that Criterion (a) should be answered affirmatively. Nonetheless, even if Horizon Power is correct in stating that it would not have an incentive to lower its prices to supply UTP customers,[28] competition in the Horizon Power NWIS electricity retail market is still likely to be increased because:

- UTP customers would benefit from lower prices and/or a better quality product if they switched to Alinta Energy even if Horizon Power did not compete – because it seems unlikely that customers would transfer to Alinta Energy if it did not offer them a more attractive service/price combination than Horizon Power;
- Horizon Power does not only need to compete by reducing its prices – it may also respond to a new entrant by reducing its costs, or by innovating or improving the quality of its service;
- the UTP may be changed if it had the effect of reducing the incentive of Horizon Power to compete with rivals; and
- there could be competition between Horizon Power and its rivals for customers that are not on UTP tariffs.[29]

Having found that access to the Horizon Power NWIS network would promote an increase in competition in the Horizon Power NWIS retail market, it is necessary to consider whether the increase is material. Whilst a trivial increase in competition would not satisfy the test in Criterion (a), access need not substantially promote competition.[30] In respect to the Horizon Power NWIS network, I consider that access would promote an increase in competition that is material, because:

- the Horizon Power NWIS retail market, with the exception of one large customer, is currently served by a single retailer, Horizon Power;
- without access, there is no opportunity for other retailers to enter the Horizon Power NWIS retail market; and
- coverage would give prospective retail market participants an enforceable opportunity to access the Horizon Power NWIS network, which would substantially improve the likelihood of one or more retailers being able to enter the Horizon Power NWIS retail market and compete with Horizon Power.

Lastly I note that Horizon Power considers that only an existing vertically integrated gentailer, such as Alinta Energy, will be able to compete with Horizon Power.[31] I note that is not necessary for access to lead to entry by multiple firms in order for competition to be promoted;

[28] Under the state government's UTP policy, all residential and small business electricity retail customers across WA have access to the same regulated tariff. The regulated tariff is set at a level that is below the cost that Horizon Power incurs in supplying the relevant customers in the NWIS.

[29] According to Horizon Power, 29 per cent of its sales volumes are to customers that are not on a uniform tariff. Horizon Power Submission, 11.

[30] *Re Australian Cargo Terminal Operations Pty Ltd* [1997] ATPR (NCC) 70-000.

[31] Horizon Power Submission, 32.

rather, for access to promote competition it is sufficient that a significant barrier to entry is withdrawn.

Conclusion on Criterion (a)

It follows from the foregoing that I consider access to the Horizon Power NWIS network would promote a material increase in competition in at least the Horizon Power NWIS retail electricity market, and so criterion (a) is satisfied.

5. Criterion (b): Uneconomic to duplicate

5.1 The criterion

Criterion (b) of section 3.5 of the Code asks:

> (b) Would it be uneconomic for anyone to develop another network to provide the covered services provided by means of the network?

5.2 Alinta Energy's views

Alinta Energy submits that Criterion (b) should be interpreted in accordance with the private profitability test articulated in the Pilbara Rail Decision,[32] because Criterion (b) is expressed in virtually identical terms to section 44G(2)(b) of the CCA, and the Code is a certified effective access regime under Part IIIA of the CCA. Alinta Energy also considers the National Competition Council's (NCC) guidance on section 44G(2)(b) of the CCA to be relevant to the application of the private profitability test in the context of criterion (b) of the Code.[28]

Applying the private profitability test, Alinta Energy considers that development of a separate new facility (by anyone) is infeasible due to existing physical barriers, such as access rights, tenure, and the physical availability of land in congested urban areas. Alinta Energy also undertook a modelling exercise which purports to demonstrate that, even if these physical barriers could be overcome, the costs incurred by anyone in duplicating the Horizon Power NWIS network would be so high as to render the venture uneconomic.

Alinta Energy's modelling exercise considers a scenario where network duplication costs of $1.194 billion are sought to be recovered over a 15 year period, assuming acquisition by the new provider of a 30 per cent share of the Horizon Power NWIS retail market over that period and a six per cent cost of capital discount rate. Under the scenario, the projected revenues received over the 15 year period are insufficient to recover the investment incurred to duplicate the network, resulting in a net present value (NPV) of negative $1.062 billion at the 15 year mark. Alinta Energy submits that this shows that duplication of the Horizon Power NWIS network (by anyone) is in no way close to being profitable or economic.

5.3 Stakeholder views

In its submission in response to the Issues Paper, Horizon Power did not put forward any material disputing Alinta Energy's arguments or modelling regarding Criterion (b). Rather Horizon Power stated that it "…accepts that Alinta's application for coverage is likely to satisfy the test in section 3.5(b)."[33]

Other stakeholders did not express any views about the application of Criterion (b) to the Horizon Power NWIS network.

[32] *The Pilbara Infrastructure Pty Ltd v Australian Competition Tribunal* [2012] HCA 36.
[33] Horizon Power Submission, 31.

5.4 Application of Criterion (b) to the Horizon Power NWIS network

Private profitability test

The High Court recently considered declaration criterion (b) in sections 44G(2)(b) and 44H(4)(b) of the CCA in the Pilbara Rail Decision. In that decision, the High Court overturned previous approaches adopted by the NCC and appeal bodies when interpreting this criterion. The approach of the NCC and appeal bodies, (often described as the "natural monopoly test") focused on the waste of Australian society's resources associated with duplication of facilities exhibiting natural monopoly characteristics. That is, where a single facility could meet all likely demand for a service at lesser cost than two or more facilities.[34]

In the Pilbara Rail Decision, the High Court determined that the test required by declaration criterion (b) is one of "private profitability", rather than a natural monopoly test in the economic sense. In short this was because the Court held that this criterion uses the term "uneconomic" to mean "unprofitable", and is to be read as requiring the decision maker to be satisfied that there is not anyone for whom it would be profitable to develop another facility.[35]

Accordingly, the issue to be determined in applying Criterion (b) of the Code to the Horizon Power NWIS network is whether it would be privately profitable for anyone to develop another distribution and transmission network to provide the covered services needed to compete in the Horizon Power NWIS retail market, and which are currently available from the Horizon Power NWIS network, on a stand-alone basis or as part of a larger project.

To effectively consider the criterion in this way, it is necessary to consider information about the cost of duplicating all or parts of the Horizon Power NWIS network. The NCC's Guide to Declaration of Services provides some information on what type of information may be necessary to assess whether the private profitability test is satisfied. The NCC suggests that information will be required about:

- the expected capital and operating costs of developing and operating a new facility;
- the projected use of the facility and revenues;
- the required rates of return on the debt and equity necessary to finance the development of the facility; and
- the basis for such estimates and the assumptions underlying them.[36]

According to the NCC, the assessment of profitability should relate at least to the period for which coverage is sought but may be referrable to another time period, for example the timeframe an investor or financier utilises in making their investment decision or the likely operating life of a new facility.[26]

The NCC is also of the view that where development of a new facility is unprofitable on a stand-alone basis, but considered to be profitable as an integrated part of a larger project, the

[34] National Competition Council, A Guide to Declaration of Services Under Part IIIA of the Competition and Consumer Act 2010 (Cth) (February 2013) ("Guide to Declaration of Services") 37.
[35] Pilbara Rail Decision at [77].
[36] Guide to Declaration of Services, 38.

assessment of profitability should include consideration of the impact of the cost of developing the new facility on overall project profitability.[27]

Independent advice on application of private profitability test to the Horizon Power NWIS network

As noted above, neither Horizon Power nor any other stakeholder made submissions contesting the arguments advanced by Alinta Energy for why Criterion (b), when applied to the Horizon Power NWIS network, is satisfied. To assist my consideration of this criterion and enable Alinta Energy's views to be tested in the absence of such stakeholder submissions, I instructed, through the Department of Treasury, Energy Market Consulting Associates (EMCa),[37] to undertake an independent assessment of the Horizon Power NWIS network against Criterion (b).

EMCa was instructed to determine whether it would be privately profitable for any party to develop another network to provide the same services as the Horizon Power NWIS network, and test the views expressed by Alinta Energy regarding on Criterion (b) (including the assumptions inherent in Alinta Energy's modelling exercise). EMCa's advice on Criterion (b) is set out in its *Report on Assessment of Horizon Power's NWIS Network Assets Against Access Code Section 3.5(b)* (EMCa Report), which is contained in the Appendix to this Draft Coverage Decision. My consideration of Criterion (b) below is informed by EMCa's advice, Alinta Energy's Coverage Application and the submissions received in response to the Issues Paper.

Practical barriers to duplication

In its coverage application, Alinta Energy states that "[t]he development of a separate, new facility (by anyone) is infeasible due to existing physical barriers, such as access rights, tenure, and the physical availability of land in congested urban areas".[38]

Alinta Energy provides further information in support of its doubts about the practical feasibility of building a competing network in its response to the Issues Paper, including:[39]

> "…it may be infeasible for anyone to get the necessary access rights and tenure in a congested urban area. For example, the relevant regulatory and local government agencies would not grant approval for duplication of poles and wires, as there is simply no land available (inside congested urban areas with pre-existing roads, footpaths and houses)."

EMCa does not consider that Alinta Energy has provided sufficient evidence to demonstrate its contention in this respect. Rather, EMCa considers that land and other access barriers are likely to be material, but are not insurmountable. More particularly:

- in respect to distribution network infrastructure,[40] the Pilbara Underground Power Project[41] has converted most distribution networks in the Pilbara to an underground cable-based configuration. EMCa is of the view that there remains room within the road easements designated for common services (including electricity) to install other circuits.

[37] EMCa is an economic consulting firm whose specialisation includes electricity transmission and distribution network access, pricing and regulation.
[38] Alinta Energy Coverage Application, 12.
[39] Alinta Energy Submission, 21.
[40] Assumed to be 33kV and lower network assets.
[41] See https://horizonpower.com.au/our-community/projects/pilbara-underground-power-project/.

They also expected suitable access to land for above ground infrastructure[42] to be possible, whilst not necessarily in positions which would efficiently minimise costs and time to construct; and

- in relation to transmission infrastructure[43], EMCa considers there is sufficient evidence from recent network and generation development projects in the Pilbara to indicate that it is likely a proponent will be able to secure satisfactory land tenure and other approvals necessary to construct transmission infrastructure, albeit possibly with less than ideal locations/line routes necessary to efficiently minimise costs and time to construct.

I agree with the views expressed by EMCa regarding the issue of practical barriers to duplication of the Horizon Power NWIS network. I understand that EMCa has taken the likely impact of such practical barriers into account in its assessment of Alinta Energy's analysis used to support its assessment of Criterion (b), which is discussed in the following section.

Assessment of Alinta Energy's analysis in relation to Criterion (b)

To support its submission in relation to Criterion (b), Alinta Energy investigated whether it would be privately profitable to construct a transmission and distribution network to supply electricity to retail customers connected to the Horizon Power NWIS network. Conceptually, this analysis can be considered as representing an end-to-end supply 'project', as opposed to modelling the economics of building and operating a network on a 'stand-alone' basis – that is, for the supply of network services to other parties. At a conceptual level, this appears to be consistent with the NCC's Guide, as described in section 5.2.

As part of its assessment, Alinta Energy estimates generation costs and potential revenues from supplying retail customers, as well as the costs relating to the transmission and distribution network.

Alinta Energy's generation cost modelling comprises a capacity cost, a variable operations and maintenance cost, a cost associated with the purchase or creation of renewable energy certificates and fuel costs based on assumptions about the gas price and generation plant heat rates. Alinta Energy's estimation of network costs is based on an assumed per-kilometre construction cost for line lengths at relevant voltages, plus the cost of constructing the necessary substations and switchyards These costs are spread over an assumed two-year construction time.

Alinta Energy estimates the revenue from supplying retail customers by assuming that a new entrant retailer captures part of Horizon Power's current market, which is then multiplied by Horizon Power's aggregate sales volumes and published tariffs.

Alinta Energy examines the profitability of the project by:

- projecting cash flows in each year by subtracting estimated network costs and generation costs from estimated retail revenues, over a 15 year time horizon; and
- calculated the present value of the stream of estimated future cash flows, using a discount rate based on an assumed cost of capital.

[42] Such as distribution substations and switchgear.
[43] Assumed to be 66kV and higher network assets, including transmission lines, substations and switchyards.

EMCa has reviewed Alinta Energy's methodology for analysing whether it would be privately profitable to duplicate the network to compete in the market for supplying retail customers. EMCa concluded that Alinta Energy's methodology is satisfactory for the purposes of exploring the private profitability of duplicating the Horizon Power NWIs network.[44] However EMCa notes that the analysis does not consider a residual value of net cash flows beyond the 15-year operating period. EMCa is of the view that if this residual value is included, it would improve the economics of the project. The implications of this view are noted in section 3.24 of the EMCa Report.

I am of the view that Alinta Energy's methodology is appropriate for considering whether Criterion (b) is satisfied.

Assessment of Alinta Energy's assumptions

EMCa also reviewed the assumptions used by Alinta Energy in its analysis. Table 2 has been reproduced from the EMCa Report and shows EMCa's assessment of the reasonableness of the assumptions in Alinta Energy's model.

Table 2: Assessment of key Alinta Energy assumptions

Category	Element	Assumption	EMCa comment
Network costs	Transmission & distribution replacement cost for Horizon Power network assets	$1194m	***Reasonable – at high end*** [It is within 20% of EMCa's own check cost estimate and Horizon Power's estimate]
Network construction	Construct $1.2billion assets	2 years	***Not reasonable – too fast*** [It is unlikely that Alinta could design and construct $1.2billion worth of T&D assets and commission them in less than 4 years
Load forecast	L4 and P2 tariff customer demand (annual)	363 GWh	***Reasonable – at low end*** [It is within 20% of Horizon Power's actual sales figures]
	Growth rate	0%	***Reasonable*** [see comments below]
Revenue	L4 & P2 tariff – fixed + variable	$330.08/MWh	***Reasonable – at low end*** [Within 20% of the average annual charge for all Horizon Power customers (excluding Large customers)]
	Market share acquisition	30% by year 17 (15 years after construction of new network assets)	***Not reasonable – at low end*** [This appears to be an unreasonably slow acquisition rate given Alinta's existing presence in the market]
Energy cost	Heat rate	12.5 GJ/MWh	***Reasonable – at low end*** [Credible source is used]
	Gas price	$6/GJ	***Reasonable*** [A credible source is used, and it is commensurate with long term supply contract]
	Gas transport	$1.5/GJ	***Reasonable – at high end*** [APA's published tariff for the Pilbara Pipeline System is a postage stamp $0.79/GJ, but the assumed cost may represent Alinta's costs]

[44] EMCa Report, 13.

	Variable O&M	$7.5/MWh	***Reasonable*** [This is within the typical range for gas-fired generators]
	Cost of energy (Ex. return)	$107.81/MWh	***Reasonable – at low end*** [The estimate is reasonable based on Alinta's other assumptions]
	Cost of energy (with capacity charge, ex-GST)	$182.81/MWh	***Reasonable – at low end*** [The estimate is reasonable based on Alinta's other assumptions]

Source: EMCa analysis

EMCa's assessment of the reasonableness of Alinta Energy's assumptions is made in the context of the intended purpose of the analysis and does not negate the need to test the sensitivity of the results of the analysis to alternative assumptions.

In summary, EMCa concludes that most of Alinta Energy's assumptions are in a reasonable range, although it could be considered there is some bias towards understating the benefits and overstating the costs. However, EMCa does not consider this bias is sufficient to change the conclusions to be drawn from the analysis, as its own modelling supports Alinta Energy's conclusion that it would not be privately profitable to duplicate the Horizon Power NWIS network.[45]

EMCa also separately considered the reasonableness of Alinta Energy's assumption that there is 'no load growth' in the NWIS. In its submission to the Issues Paper, Alinta Energy contended that the combination of low iron ore prices and the current economic conditions mean that an assumption that there would be no load growth in the NWIS is reasonable.

EMCa concludes that (absent a detailed review of load forecasts):

- the economic climate in the NWIS may recover from the current relatively low level over the next ten years; and
- it is possible that distributed energy resources (such as rooftop solar and battery storage) will mitigate residential, commercial and industrial energy demand growth from the network.

EMCa considers that, on balance, Alinta Energy's assumption regarding load growth is reasonable as a 'base case' assumption. EMCa notes that, for its modelled scenario and assumptions, Alinta Energy has demonstrated in its response that its 'unprofitable and uneconomic to duplicate' conclusion is not sensitive to the load growth rate. [46]

I am of the view that the assumptions adopted by Alinta Energy in its analysis are, taken as a whole, within a reasonable range.

[45] EMCa Report, 18-19.

[46] Which is confirmed by using Alinta Energy's model, which EMCa obtained through the Department of Treasury (Alinta Energy voluntarily provided the model to the Department).

Alternative estimate of the network duplication costs

In order to inform its assessment of Alinta Energy's assumptions, EMCa developed its own bottom-up estimates of the costs of duplicating the Horizon Power NWIS network.[47] This was done by:

- assigning estimated unit costs to actual line lengths for all the key line sections operating at 220kV, 132kV, 66kV, and 33kV;[48]
- assigning estimated transmission substation and switchyard costs to the equivalent Horizon Power configuration (for example, at Cape Lambert Terminal there are multiple voltage levels); and
- including East and West Pilbara distribution network costs based on the average unit costs from the more recent (Phase 1 and Phase 2) Pilbara Underground Power Project actual figures.

As a simplifying assumption (and consistent with Alinta Energy's own modelling), EMCa did not include an estimate of the network operating costs in its analysis. If included, this would further reduce the profitability of a duplicated network, though not by a material amount.[49]

The individual line and substation/switchyard costs were derived from a combination of industry literature and information on recent development costs and the typical 'cost loading factor' to account for the added costs of designing and constructing assets in the Pilbara, noting cyclone ratings are required, as provided by Horizon Power.

Actual distribution network development costs for the more recent phases of the Pilbara Underground Power Project were provided by Horizon Power and EMCa derived approximate distribution sub-network replacement costs (for underground construction) by pro-rating the cost by the number of lots in the respective townships. EMCa compared the Horizon Power cost per lot against industry literature for underground network construction and concluded that the Horizon Power costs are reasonable approximations for the current purpose.

EMCa also derived 'high' case transmission and distribution (T&D) estimate (approximately 15 per cent higher than EMCa's central case estimate) and a 'low' case estimate (approximately 20 per cent lower than the central case estimate).

EMCa also compared its central case 'bottom-up' estimate of the cost to replace the transmission and distribution network against Horizon Power's own estimate – the difference being less than 10 per cent.

EMCa estimated that the cost of duplicating the Horizon Power NWIS network would be approximately $979 million.[50] EMCa notes that this estimate is commensurate with Horizon Power's own estimate and approximately 20 per cent lower than the estimate provided by Alinta Energy.

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47 EMCa Report, 16.

48 Noting that in practice, 'duplicate' line route lengths are likely to be somewhat longer than Horizon Power's equivalent because of different substation locations and because different line easement would be required.

49 Alinta did not include a network operating cost in its modelling.

50 EMCa Report, 16.

Consideration of the sensitivity of the analysis to alternative assumptions

EMCa also investigated the sensitivity of the conclusions of Alinta Energy's analysis to a number of alternative assumptions. The results of this analysis, and the sensitivity assumptions made are set out in Table 3.

Table 3. Scenario analysis for 'duplication' of the Horizon Power NWIS Network

CASE	T&D cost ($m)	Alinta market share cap (%)	Time to achieve market share cap (years)	Year 1 annual load (GWh)	Network construction time (years)	Average sales revenue ($/MWh)	NPV ($m)
BASE	1,194	30%	17	363	2	330	**(1,062)**
1A	1,006	30%	9	386	5	330	**(694)**
1B	1,006	65%	5	386	5	330	**(414)**
1C	852	30%	9	386	5	330	**(460)**
1D	1,006	30%	9	386	5	399	**(598)**
1E	852	65%	5	386	5	330	**(49)**

Source: Base Case: Alinta (per Figure 4 of its coverage application), other cases: EMCa analysis

EMCa did not consider a scenario in which the load growth rate is above zero because network planning studies would be required to determine the additional network augmentation cost and timing to meet any increased loads (with assumptions also required to be made about where the load increase occurs). The base case parameters in Table 3 represent the key inputs applied by Alinta Energy in its analysis. The basis for the alternative inputs in Cases 1A-1E are:

- **Alinta Energy's market share 'cap' and time to achieve the cap** – Alinta Energy assumed that it would progressively acquire 2 per cent market share from a starting point of 10 per cent in year 3, with 30 per cent market share achieved in year 17 (the final year) of its analysis. EMCa consider this to be a 'low' (that is, conservative) case and applied a 'central' case in which the load acquisition rate is double Alinta Energy's assumed rate with the cap of 30 per cent being achieved in year 9. EMCa also considered a 'high' case in which Alinta acquires a 65 per cent market share by year 5.
- **Year 1 Horizon Power load** – In all sensitivity scenarios, EMCa applied the amount set out in the Issues Paper.[51]
- **Construction period** – in all the sensitivity scenarios, EMCa applied what it considers to be a more realistic 5-year construction period to build the approximately. $1 billion worth of assets across the Pilbara.
- **Average sales revenue** – Based on the sales volumes in the tariff segments reported in the Issues Paper,[52] EMCa applied a 'high' case value of $399/MWh (approximately 20 per cent higher than Alinta Energy's assumption).

[51] Department of Treasury, *Coverage of the Horizon Power Electricity Network in the North West Interconnected System – Issues Paper* (15 September 2017), Table 4 (not including FMG's load of 82GWh).
[52] *Ibid.*

- **Residual value** – It seems unlikely that sales volumes progressively built up over the 15-year operating period would cease at that point, and EMCa assumed a residual value for the net cash flows at that point to continue for the remaining economic life of the asset.

Except for Case 1E, in which the combination of the 'low' cost T&D, 'high' market share acquisition rate, and 'high' sales revenue assumptions result in a NPV that is approaching breakeven, the other scenarios confirm that it is unlikely to be privately profitable for anyone to develop another network to secure access to Horizon Power's customer base across the NWIS.

If a residual value is not included, then the results above are more negative: for example, excluding residual value results in an NPV of -$784m for case 1A, and -336m for case 1E.

Taken together, EMCa concludes that the economic modelling is consistent with a conclusion that it would be uneconomic for anyone to develop another network to provide the covered services currently provided by means of the Horizon Power NWIs network.

Consideration of alternative definitions of the network being duplicated

In addition to considering the sensitivity of Alinta Energy's analysis to changes in assumptions, EMCa also considered whether it might be privately profitable to duplicate particular parts of the Horizon Power NWIS network. EMCa investigated three alternative definitions of the network being duplicated as scenarios, namely:

Scenario 2: Network infrastructure is constructed to access selected loads in the East Pilbara region only

This scenario involves not duplicating any 220kV transmission assets, and sees Alinta Energy supplying loads in the East Pilbara area only from its generation facilities in that area. EMCa considered six cases under this scenario, which varied by the assumptions made on market share (30 per cent, 50 per cent and 65 per cent), the time to acquire the market share, and the capital cost to facilitate access to all Horizon Power customers in the East Pilbara.[53]

The result of this scenario is that duplication of the East Pilbara assets only is unprofitable under all assumptions, albeit less so as compared to duplication of the entire Horizon Power NWIs network. EMCa therefore concludes that with the high cost of the 220kV infrastructure connecting the East and West Pilbara removed from the analysis, the economics of supplying these sub-regions are considerably less unfavourable than the economics of supplying through duplication of the whole of the Horizon Power NWIS network.[54]

Scenario 3: Network infrastructure is constructed to access selected loads in the West Pilbara region only:

This scenario includes the need for duplication of 220kV assets between Port Hedland and Cape Lambert for Alinta to supply customers in West Pilbara from its generation in East Pilbara.[55] Six cases are considered under this scenario, which varied by the assumptions made on market share (30 per cent, 50 per cent and 65 per cent), the time to acquire the

[53] The loads were selected on the basis of providing the highest access to customers for the lowest new/duplicate transmission and distribution infrastructure.
[54] EMCa Report, 21.
[55] Based on the assumption that Alinta does not have access to generation output in the West Pilbara

market share, and the capital cost to facilitate access to Horizon Power customers in the West Pilbara.[56]

EMCa finds that the high cost of 220kV infrastructure assumed in this scenario makes it very unlikely that a privately profitable network development scenario could be developed. EMCa further finds that the negative NPV is not sensitive to alternative assumptions on the customer load, market share or length of the construction period.

Scenario 4: Only transmission infrastructure is constructed to access Horizon Power transmission customers in the Horizon Power NWIS network:

The final scenario considered by EMCa relates to duplication of only transmission infrastructure to supply customers connected only to the transmission network. EMCa's conclusion on this scenario was that the duplication of transmission assets only would not be privately profitable because no Horizon Power consumers are directly connected to the transmission network, and therefore distribution infrastructure is required to access customers in the Horizon Power NWIS retail market.[57]

Relevance of alternative scenarios considered by EMCa

Alinta Energy's application relates to the entirety of the Horizon Power NWIS network. In assessing Alinta Energy's application with respect to Criterion (b) I have only considered whether it would be privately profitability for anyone to duplicate the entirety of the Horizon Power NWIS network.

Whilst I did not consider EMCa's analysis on alternative definitions of the network to be relevant for the purpose of Criterion (b), I did find it to be relevant to my consideration of whether the NWIS should be covered to a greater or lesser extent than requested by Alinta Energy, which is discussed in section 7.2 of this Draft Coverage Decision.

Factors likely to emerge in the foreseeable future that may affect the private profitability test under Criterion (b)

Finally, EMCa considered three additional factors that might affect the private profitability of duplicating the Horizon Power NWIS network, namely:

- the potential for sustained positive load growth in the Pilbara region;
- the potential emergence of micro-grids as an economically viable alternative for many customers in the Pilbara region; and
- the possibility that changes to the subsidy arrangements applying to Horizon Power might be made in the future, thereby enhancing the potential private profitability of private participants supplying electricity to customers connected to the Horizon Power NWIS network.

EMCa concludes that these factors are relevant to the application of Criterion (b) to the Horizon Power NWIS network, but owing largely to their speculative character they do not alter

[56] The loads were selected on the basis of providing the highest access to customers for the lowest new/duplicate transmission and distribution infrastructure

[57] EMCa Report, 23.

EMCa's conclusion, based on its modelling, that the Horizon Power NWIS network is uneconomic to duplicate.[58]

Conclusion on Criterion (b)

I am of the view that it would not be privately profitable for anyone to construct another network to provide the covered services provided by means of the Horizon Power NWIS network. In reaching this view I have relied on:

- the submissions on Criterion (b) made by Alinta Energy in its Coverage Application and Submission in response to the Issues Paper;
- the statements by Horizon Power in its Submission in response to the Issues Paper to the effect that it accepts that Alinta Energy's application for coverage is likely to satisfy the test in section 3.5(b) of the Code; and
- EMCa's advice discussed above.

[58] EMCa Report, 24-25.

6. Criterion (c): Public interest test

6.1 The criterion

Criterion (c) of section 3.5 of the Code asks:

> (c) Would access (or increased access) to covered services provided by means of the network not be contrary to the public interest?

6.2 Alinta Energy's views

Alinta Energy states that access to the Horizon Power NWIS network would not be contrary to the public interest.[59] The primary benefit it identifies is that retail competition would be introduced, giving rise to estimated benefits of $240 million from direct energy cost savings and a $140 million contribution to economic growth in the Pilbara over the first ten years.[60]

Alinta Energy states that access would also provide benefits through:[61]

- redressing the bargaining power asymmetry between Horizon Power and potential access seekers;
- improving the efficiency of resource use; and
- improving the viability of businesses in the Pilbara.

Alinta Energy states there will likely be regulatory costs for Horizon Power and the State associated with the introduction of competition. It expects that preparing the access arrangement that would be required would be less onerous compared to other network arrangements within Australia, given the relatively small and less complex nature of Horizon Power's network in the NWIS.[62]

Further, Alinta Energy states that the Tariff Equalisation Contribution (TEC) and Tariff Adjustment Payment (TAP) would need to be modified to satisfy competitive neutrality principles if the Horizon Power NWIS network is covered, and that the drain on the public finances of any future TEC and TAP payments should be dictated by the overall supply cost efficiency, rather than by the particular costs by Horizon Power.[63]

6.3 Stakeholder views

Horizon Power was the only stakeholder to address criterion (c) directly, although other businesses were generally supportive of Alinta Energy's application.[64]

Horizon Power states that the public costs of coverage of the Horizon Power NWIS network outweigh the public benefits because:[65]

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59 Alinta Energy Submission, 24.
60 Alinta Energy Coverage Application, 15-16.
61 Alinta Energy Submission, 29-30.
62 Alinta Energy Submission, 33.
63 Alinta Energy Submission, 28.
64 See ATCO Australia, *Letter to Mr Zaeen Khan Re: Issues paper: coverage application by Alinta Energy*, 16 October 2017; FMG, *Letter to Mr Zaeen Khan Re: Issues paper: coverage application by Alinta Energy*, 16 October 2017 and TransAlta, *Letter to Minister for Energy Re: Coverage of the Horizon Power electricity network in the North West Interconnected System – Issues paper submission*, 14 October 2017.
65 Horizon Power Submission, 6-7 and 33-37.

- Horizon Power will lose revenue as a result of competition from others, and the shortfall will be passed on to consumers in the SWIS and to taxpayers via an increase in the TEC, so as to maintain uniform pricing for small-use customers in the SWIS and NWIS;
- Horizon Power's costs will increase as a result of disconnecting Rio Tinto's network if the network is covered;
- coverage will further complicate Horizon Power's role as the de facto system operator for the NWIS;
- coverage will create an uneven playing field, which may enable unregulated parties to game commercial outcomes; and
- the benefits estimated by Alinta Energy are overstated, and they may be closer to approximately $7 to $9.2 million.

6.4 Application of criterion to the Horizon Power network

I have approached the task of assessing whether or not access (or increased access) to services provided by means of the Horizon Power NWIS network would be contrary to the public interest in a manner that is consistent with the Pilbara Rail Decision,[66] that is:

- I have considered the range of potential effects on the public interest raised by stakeholders that I consider may be relevant; and
- I have sought to weigh those factors in balancing the potential benefits against the potential costs, having regard to the likelihood they may eventuate and the consequences if they do. In some cases, numeric values have been placed on particular costs and benefits by Horizon Power and Alinta Energy and, whilst I take these into account (bearing in mind the uncertainty regarding their quantum) in making my judgment, I do not simply add up the costs and benefits.

Importantly, I did not consider it useful to approach Criterion (c) on a purely quantitative basis (that is, purely on the basis of a cost/benefit analysis) because many of the costs and benefits associated with access to the Horizon Power NWIS network have a speculative character that it appears cannot be assessed definitively, or even with sufficient certainty to sustain a compelling cost benefit analysis. This is most evident in relation to the purported levels of costs arising from the forecast reductions in Horizon Power's revenue and the resulting impact on the State's electricity subsidy arrangements.

In considering Criterion (c) I am conscious that am not required to be affirmatively satisfied that access, or increased access, would be in the public interest.[67] Rather, the question I must answer is whether access, or increased access, would *not be contrary* to the public interest.

In summary, I have found that access (or increased access) to covered services provided by means of the Horizon Power NWIS network would not be contrary to the public interest, and so criterion (c) is satisfied, for the reasons I give below.

[66] *The Pilbara Infrastructure Pty Ltd v Australian Competition Tribunal* [2012] HCA 36 (14 September 2012), paras 42 and 111.
[67] *In the matter of Fortescue Metals Group Limited* [2010] ACompT 2 at [1160].

The effect of coverage

The effect of a decision that the Horizon Power NWIS network be covered is that Alinta Energy (and other access seekers) would obtain an enforceable right to seek access to that network. In practical terms, this means that:

- Horizon Power would need to develop an access arrangement, setting out both the price and non-price terms and conditions of access;
- the access arrangement would need to be approved by the Economic Regulation Authority (ERA), following the requirements set out in the Code; and
- once approved, Alinta Energy (and any other access seekers) will decide whether the access arrangement provides a commercial basis for competing in a related/dependent market.

Benefits of access

Increased competition

The benefits of competition are well established as a matter of economic principle. Consistent with this, the objective of the Code is to promote competition in markets that are upstream or downstream from a network,[68] and the object of the CCA is:[69]

> …to enhance the welfare of Australians through the promotion of competition and fair trading and provision for consumer protection.

In general, competition is said to lead to a wide range of substantial benefits, including:

- the efficient use of resources, because the price of products reflects their cost to society;
- the efficient running of firms, because those that produce goods most cheaply grow relative to less efficient firms, and each firm has an incentive to cut costs in order to reduce prices and win customers; and
- that firms have an incentive to invest in an efficient manner.

Some of these benefits are hard to measure, whilst others (such as the benefits from investment) may take some time to materialise.

I agree with both Alinta Energy and Horizon Power that customers in the NWIS are likely to benefit from competition by paying a lower price for electricity.[70] Alinta Energy has estimated that there would be a $240 million reduction in the cost of energy in the Pilbara in the first ten years, whilst Horizon Power estimates that the benefits to SWIS customers from paying lower prices is in the region of $9 million per year.[71]

These estimates are based on assumptions that:

- annual energy costs for small and residential customers will fall by ten per cent of total expenditure (Alinta Energy's assumption); or[72]

[68] Section 2.1 of the Code.
[69] *Competition and Consumer Act 2010* (Cth), s. 2.
[70] Horizon Power Submission, 35 and Alinta Energy Coverage Application, 15.
[71] Horizon Power Submission, 7.
[72] Alinta Energy Coverage Application, 15.

- prices will fall by ten per cent for non-UTP customers and five per cent for UTP customers that transfer to Alinta Energy (Horizon Power's assumption).[73]

Even allowing for the difference in assumptions, the discrepancy between the estimated benefits tends to show something of the difficulty in forming a definitive assessment. There is also uncertainty regarding the extent to which these assumptions of price reductions are likely to materialise and how many customers may benefit from them. However, these are not the only benefits from competition developing in the NWIS. There are also likely to be benefits from:

- a higher quality of service being provided to customers;
- customers purchasing a greater amount of electricity, given that prices are lower;
- increased pressure on Horizon Power to reduce costs; and
- increased incentive on Horizon Power to invest in an efficient manner.

These additional benefits have not been quantified by Alinta Energy or Horizon Power, but collectively they are also likely to be substantial should competition develop in the NWIS, given that the degree of competition is increasing from a monopolist facing no potential competition at all, to at least two firms.

Other benefits of access

Alinta Energy submits that there are other benefits of access including:[74]

- redressing the bargaining power asymmetry between Horizon Power and potential access seekers;
- improving the efficiency of resource use; and
- improving the viability of businesses in the Pilbara.

First, redressing bargaining power can be a public benefit if it leads to an effect that is in the public interest. In the *Virgin Blue Airlines Pty Limited* decision referred to by Alinta Energy, the Tribunal found that a binding dispute resolution process would address the significant bargaining power asymmetry it observed in that matter, which it considered would be desirable.[75] This was in the context of a finding by the Tribunal that Sydney Airport's bargaining power may lead to increases in charges for airlines,[76] and it had an incentive to exercise its market power such that its use would have the effect of adversely affecting competition in the dependent market.[77] In other words, redressing the bargaining power would promote competition.

In this case, improving the bargaining power of Alinta Energy leads to the benefit that competition can take place for retail customers supplied by Horizon Power NWIS network. I have already examined this benefit above, and do not consider the benefit of increased bargaining power to be additional to the benefit from greater competition that I have already

[73] Horizon Power Submission, 60.
[74] Alinta Energy Submission, 29-33.
[75] *Re Virgin Blue Airlines Pty Limited* [2005] ACompT 5, paras 605-606.
[76] *Re Virgin Blue Airlines Pty Limited* [2005] ACompT 5, para 485.
[77] *Re Virgin Blue Airlines Pty Limited* [2005] ACompT 5, para 312.

described above. I do however consider that improving the bargaining power of Alinta Energy may be desirable as a measure that promotes an increase in competition.

Second, I agree with Alinta Energy that resources are likely to be used more efficiently if competition can occur between Alinta Energy and Horizon Power in meeting the needs of electricity retail customers in the NWIS. However, this is a benefit from competition that I have already considered.

Third, I expect businesses operating in the Pilbara will benefit if prices were to fall as a result of greater competition to supply retail electricity. This would provide benefits to the Pilbara economy and the people who live and work there.

Costs of access

Horizon Power's submissions

Horizon Power has said that increased competition will lead to:[78]

- lower economies of scale for Horizon Power, that is, higher costs per customer; and
- a loss of revenue (as customers switch to rivals).

Horizon Power states that these losses would need to be funded by the State Government and SWIS customers, and that these costs are much greater than the benefits arising from competition.[79] Horizon Power states that the increase in its average costs from supplying fewer customers will result in the TEC growing by approximately $28 to $62 million by the end of the second year after coverage.[80]

Horizon Power also refers to a number of "incremental costs" it would incur as a result of coverage, including:[81]

- $1 million per year for 'additional costs to Horizon Power';
- $2 million per year for new metering and billing systems; and
- the cost of communications equipment being installed for generators.

Horizon Power also submits that there would be several other public costs as a result of coverage, namely:[82]

- the disconnection of Rio Tinto and Horizon Power's networks that will require duplication of frequency control costs because these services will be required on both firms' networks, and additional investment to provide redundant supplies to Dampier;
- coverage will further complicate Horizon Power's role as the de facto system operator for the NWIS; and
- coverage will create an uneven playing field, which may enable unregulated parties to game commercial outcomes.[83]

[78] Horizon Power Submission, 6-7 and 33-36.
[79] Horizon Power Submission, 7.
[80] Horizon Power Submission, 35.
[81] Horizon Power Submission, 36.
[82] Horizon Power Submission, 37-39.
[83] Horizon Power Submission, 34.

Horizon Power's position is, in summary, that the costs associated with providing access to its network outweigh the benefits associated with any increase in competition in the Horizon Power NWIS retail market. I have considered each of the costs raised by Horizon Power in its submissions in turn below.

Horizon Power revenue and economies of scale implications

As noted above, Horizon Power submits that competition will result in it losing a substantial amount of revenue and incurring higher costs on a per customer basis. Whilst it is reasonable to expect that Horizon Power will lose some revenue as a result of competition, I consider there is substantial uncertainty regarding the quantum of the loss that may eventuate.

I note that Horizon Power's submissions as to the costs of increased competition do not take into account the possibility that Horizon Power may be able to supply wholesale power to Alinta Energy. Further, Horizon Power's fixed costs largely arise from power and gas purchase agreements,[84] which will expire in the long term. I note also that, to the extent such costs involve a transfer from one entity to another, they may not fall to be considered as costs or benefits to the public.

Horizon Power's revenue will fall if it loses customers to Alinta Energy, and it may lose some economies of scale given that a large proportion of its costs are fixed.[85] This is part of the competitive process, that is, an incumbent can expect to suffer a loss of revenue when there is a successful new entrant. For example, the High Court has described competition as being:[86]

> …by its very nature…deliberate and ruthless. Competitors jockey for sales, the more effective competitors injuring the less effective by taking sales away. Competitors almost always try to "injure" each other in this way….

Indeed, the Code and CCA are designed to increase competition, even though it is well known that the process may cause some competitors to be harmed, while others may prosper.

In large part, the costs to Horizon Power are likely to be matched by benefits to Alinta Energy, for example:

- a loss of revenue for Horizon Power as customers switch to Alinta Energy will result in an increase in revenue for Alinta Energy (the increase in revenue will be slightly lower than the loss of revenue if Alinta Energy attracts customers by offering lower prices); and similarly
- lower economies of scale for Horizon Power may result in greater economies of scale for Alinta Energy, depending upon the extent to which Alinta Energy has excess capacity using its current fixed costs.

It is well accepted that the total welfare benefit of competition is positive even though some firms almost always lose out from the competitive process. The principal exceptions to this view arise if there is a natural monopoly or some other cost that is not related to competition. The generation and retailing of electricity in the NWIS is not an inherent natural monopoly,

[84] Horizon Power Submission, 18.
[85] Horizon Power Submission, 18.
[86] *Queensland Wire Industries Pty Ltd v Broken Hill Pty Co Ltd ("Star Picket Fence Post case") [1989] HCA 6; (1989) 167 CLR 177 (8 February 1989),* para 24.

and so I expect there to be net benefits from introducing competition, subject to the discussion of other costs below.

Electricity subsidy implications

Horizon Power is a State Government owned, vertically integrated generation, transmission and retail energy corporation. In addition to supplying the Horizon Power NWIS retail market, Horizon Power also supplies electricity to various regional towns and remote communities across Western Australia. Because Horizon Power supplies a relatively small number of customers spread out over a very large geographical area, its costs on a per customer basis are high.

Under the State Government's Uniform Tariff Policy (UTP), all residential and small business customers across Western Australia have access to regulated tariffs. Relevantly, the regulated tariffs are set at a level which is below the cost Horizon Power incurs to supply the relevant customers in the Horizon Power NWIS retail market.

The shortfall in Horizon Power's revenue from supplying customers in the Horizon Power NWIS retail market under the UTP is made up through a cross subsidy called the tariff equalisation contribution (TEC). The TEC is funded through a levy on Western Power's distribution network tariffs, that is, all distribution network tariffs within the SWIS.[87] Historically an additional payment from consolidated revenue, the Tariff Adjustment Payment (TAP) also contributed to the subsidisation of Horizon Power, however current State Budget forward estimates make provision for only a nominal TAP amount in the 2018-19 financial year, and no provision thereafter.[88]

The current operation of the TEC has implications for competition in the Horizon Power NWIS retail market, namely:

- Horizon Power loses the subsidy it receives for supplying a customer under the UTP if it sets a price below the UTP price,[89] and so it has no incentive to reduce its price below this level so as to retain a customer in the face of competition;
- there is currently no provision for UTP subsidy arrangements to apply to parties accessing Horizon Power's network so as to compete to supply UTP customers – this has the potential to distort competition since new entry would imply one firm would benefit from a subsidy whilst the other would not; and
- the incentive for Horizon Power to compete for non-UTP customers to minimise potential losses arising from the non-recovery of generation and retailer costs is limited because any reduction in its revenue would simply lead to an increase in the TEC.

Each of these potential outcomes would distort competition if Horizon Power were to face competing potential suppliers for customers using the Horizon Power NWIS network. This is inconsistent with the overarching objective of the Code "to promote economically efficient investment in and operation of and use of networks and services of networks in WA in order to promote competition in markets upstream and downstream of the networks"[90], although the

[87] See Part 9A of the *Electricity Industry Act 2004*.
[88] Government of Western Australia, *Western Australian State Budget*, Budget Paper No. 3 - Economic and Fiscal Outlook, 5 and 304.
[89] Horizon Power Submission, 6.
[90] Section 2.1 of the Code.

arrangements may be appropriate for Horizon Power as a vertically integrated monopoly provider.

In its Submission Horizon Power refers to the existing electricity subsidy arrangements and claims that the increase to its average costs brought about by coverage would have the following implications for those arrangements:[91]

- a material increase in the TEC, of approximately $28 – 62 million by the end of the second year after coverage (mid-point), resulting in a 1.6 – 3.5% increase in the cost of Western Power network charges for non-uniform tariff SWIS customers; and
- an increase in the TAP that would result in additional net State debt of approximately $32 – 68 million by the end of the fourth year after coverage.

It is evident from Horizon Power's Submission that coverage of the Horizon Power NWIS network could have adverse consequences for Horizon Power, the State and/or customers in the SWIS. However I consider at this time it is not possible to predict the quantum of financial consequences with any degree of certainty. Inherent in Horizon Power's submissions on this issue are several material uncertainties, each of which have a significant impact on the conclusion which can be drawn with respect to public cost. These uncertainties include:

- how soon after coverage Alinta Energy gains access to the Horizon Power NWIS network (that is, when competition commences);
- how aggressive Alinta Energy's entry in to the Horizon Power NWIS retail market is;
- wider electricity demand trends in the Pilbara region;[92]
- Horizon Power's ability to respond to competition;
- whether the existing arrangements for calculation of the TEC continue in a situation where Horizon Power is subject to competition; and
- assuming the existing arrangements for calculation of the TEC continue, whether Synergy is permitted to pass any increase in network charges, arising from an increase in TEC, through to its customers.[93]

Further I note the TEC is a policy instrument that, like any matter of policy is not immutable, but rather subject to change as circumstances may require. To date the TEC mechanism has operated in an environment in which Horizon Power has not faced competition for UTP customers. It is Horizon Power's submission that, based on the existing operation of the TEC, it loses its total subsidy for any customers it supplies a price below the UTP. Horizon Power considers this constitutes a perverse incentive not to compete with Alinta Energy on price for UTP customers with an equivalent service.[94]

[91] Horizon Power Submission, 35.

[92] The scenario in Horizon Power's Submission appears to assume there will be no load growth in the Horizon Power NWIS retail market over the four year period.

[93] In the SWIS, all residential customers and a large proportion of business customers are supplied by Synergy. If the TEC were to increase as a result of coverage, whether or not Synergy's customers see an increase in their electricity charges would be dependent on whether Synergy is permitted to pass the increase in network tariffs through to its customers. Synergy's fees and charges are set by the State Government through the annual budget process, so any decision as to whether Synergy could pass through such increased network costs would be a matter of government policy.

[94] Horizon Power Submission, 6.

The extent to which the TEC may or may not be modified to address any perceived or actual perverse incentive on Horizon Power is a matter of government policy. There are alternative designs for the TEC, or other policy arrangements that could be put in place, so as to mitigate any unintended consequences that arise from the operation of the TEC in a competitive environment. Although the government presently has no plans to change the TEC, it seems reasonable to suppose that the TEC mechanism might be altered if the market circumstances changed, such as if and when competition in the NWIS arose, or competition was likely to arise.

Accordingly, on the basis that:

- the materiality of the impact of coverage on State finances and SWIS customers is highly uncertain; and
- the TEC is matter of government policy that could be amended in response to the introduction of competition,

I do not consider Horizon Power's concerns about the interaction between the current design of the TEC and a decision about coverage of the Horizon Power NWIS network to be a matter that could mean that access or increased access would be contrary to the public interest.

Horizon Power incremental costs

In its Submission, Horizon Power says that it will incur certain "incremental costs" as a result of coverage of the Horizon Power NWIS network.[95] Horizon Power has provided little explanation for why these costs will be incurred, and it is not clear whether some of these costs would have been incurred without coverage of the Horizon Power NWIS network, but perhaps at a later date. Therefore, there is uncertainty regarding the quantum of these costs, although I accept there will be some costs of providing access, should competition develop following coverage of Horizon Power's network.

The only unavoidable costs of coverage, irrespective of the extent to which competition develops, is that Horizon Power will need to develop an access arrangement to be approved by the ERA and reorganise its business to comply with the Code's ring-fencing requirements.[96] This will take some time for Horizon Power and the ERA to develop, but I do not expect the cost of doing so to be substantial.

Although, as a matter of principle, the total cost of providing electricity services to customers in the NWIS could rise, to the extent that these costs are passed onto access seekers within an access arrangement, they would be reflected in the commercial decisions of any access seeker competing in a downstream market. In other words, market forces would lead to access occurring if the competition benefits outweigh the additional costs incurred by Horizon Power to facilitate access. Similarly, if the costs of facilitating access do not outweigh the benefits then access would not occur and the costs identified by Horizon Power would not materialise.

Since the interactions between Horizon Power and those seeking access via an approved access arrangement will ensure that access will only arise when the benefits exceed the costs, that Horizon Power may incur "incremental costs" is not a matter that could mean that access or increased access is contrary to the public interest.

[95] Horizon Power Submission, 36.
[96] See Chapter 13 of the Code.

Other public costs

Firstly, Horizon Power says that coverage will likely lead to disconnection of Rio Tinto and Horizon Power's respective networks in the West Pilbara, which would result in:

- duplication of frequency control costs because these services will be required on both firms' networks; and
- additional investment by Horizon Power to provide redundant supplies to Dampier.

I am not in a position to determine what commercial complexities would be caused between Rio Tinto and Horizon Power as a result of coverage of the Horizon Power NWIS network. Horizon Power has not provided evidence to support the claim that it would be necessary for its network to be disconnected from Rio Tinto's. This reduces the weight that I give to this cost. However, I have no evidence to the contrary, so I do give this some weight.

Horizon Power has provided some estimates of the cost of the disconnection, but there is significant uncertainty about the actual cost that would eventuate. My conclusion regarding these costs is that there is some potential for them to be significant, but they are very uncertain.

Secondly, Horizon Power submits that coverage of the Horizon Power NWIS network will further complicate Horizon Power's role as the de facto system operator for the NWIS. I accept that the Horizon Power NWIS network may be more complex to manage when third parties are provided with access to the network. Horizon Power has not provided an estimate of the extent of the costs associated with this additional complexity, and I do not expect it would be substantial. These costs may also be borne by access seekers if they are efficient costs that are caused by access being provided. In that case, the benefits of competition can be expected to outweigh the costs from allowing access if the entrant chooses to bear those costs.

Regardless, any additional costs associated with operating the system as a consequence of competition developing in the NWIS would need to be recovered in some manner from participants within the market. Irrespective of whether this is via the access arrangement or some other method, the fact that there may be additional costs associated with system operation are not a sufficient basis for me to conclude that declaration is contrary to the public interest.

Lastly, Horizon Power submits that coverage will create an uneven playing field which may enable unregulated parties to game commercial outcomes. I do not consider that coverage will create an uneven playing field. If anything, it will allow firms to compete for retail customers on a more equal basis than is currently the case. I do not consider that Alinta Energy will be able to require reference services, terms and conditions and technical outcomes that would restrict Horizon Power's ability to compete.[97] At this stage it is not necessary to set out the access arrangements, but the objective of the Code is to promote competition in markets that are upstream or downstream from the network in question, and so my assumption is that the access arrangement to be developed would not allow Alinta Energy to distort competition.

Entry would not occur if it would lead to harm to consumers

[97] Horizon Power Submission, 34.

For competition alone to cause a net harm to the public over the long run,[98] it would be necessary that the total cost of providing the service from all firms would be higher with two or more suppliers, as compared to one – in other words the retail electricity market would need to be a natural monopoly.

However, should the retail electricity market be a natural monopoly in parts of the NWIS then it would similarly be uneconomic for a new entrant to compete for those customers even though access to the network had been provided.

In other words, it is very unlikely that Alinta Energy could profitably enter and win customers from Horizon if Alinta Energy had higher average costs than Horizon Power. It follows that there is unlikely to be harm to the public if competition would result in costs that are greater than the benefits because, in this instance, entry would not be successful. It follows that improving the environment for competition through the coverage of the Horizon Power NWIS network would not, in and of itself, be contrary to the public interest.

Conclusion on Criterion (c)

I expect that the development of competition in the Horizon Power NWIS retail market has the potential to lead to substantial net benefits. Alinta Energy and other access seekers will not be able to enter profitably if competition would lead to net costs. It follows that competition will either lead to net benefits as it develops, or it will not develop. In any case, there will be some benefit from the competitive constraint of potential entry being more likely.

The unavoidable cost of coverage is small, that is, preparing an access undertaking. There may be some additional costs if Alinta Energy successfully enters the Horizon Power NWIS retail market, such as an increased TEC amount, or costs associated with the disconnection Rio Tinto's network from Horizon Power. These will only be incurred if entry is successful, in which case the benefits of competition are being realised.

It follows that, should the Horizon Power NWIS network be covered, the two possible scenarios are that:

- entry does not take place, but the cost of preparing the access arrangement is incurred; or
- entry does take place, in which case I consider that the net benefit of competition will outweigh the detriments set out above.

I consider that, irrespective of which scenario is more likely, access (or increased access) to services provided by the Horizon Power network would not be contrary to the public interest, and so criterion (c) is satisfied.

[98] Not including other costs associated with coverage discussed below.

7. Other matters

7.1 Geographical location of the network and extent to which it is interconnected with other networks

The Horizon Power NWIS network is located in the Pilbara region of Western Australia, an economically important area which is to a large extent directly or indirectly dependant on resource export activity.

The Horizon Power NWIS network consists of the following two regions, which are connected by a 220kV transmission line:

- Horizon Power Western region: The City of Karratha, including connections to the Port of Dampier, Cape Lambert, Sampson Point and Roebourne; and
- Horizon Power Eastern region: The Town of Port Hedland and surrounds, including Wedgefield, South Hedland and connections to BHP and Fortescue Metals Group port operations.

The western and eastern sections of the Horizon Power NWIS network are able to operate in isolation should the transmission connection between the two be interrupted, with Horizon Power able to continue supply to its retail customers in each location using local generation. To an extent the Horizon Power NWIS network functions as two separate distribution networks connected by transmission line.

The Horizon Power NWIS network interconnects with the larger Rio Tinto network at Dampier in the West Pilbara and with network infrastructure owned by Alinta and BHP in Port Hedland to the east.

Stakeholder views

In its submission to the Issues Paper, Horizon Power refers to Rio Tinto's network assets in the West Pilbara region that are interconnected with the Horizon Power NWIS network at a voltage of 33kV at Dampier and Cape Lambert, with a maximum transfer limit of 30MW at each connection point. Horizon Power states that between Cape Lambert and Dampier, the respective Horizon Power and Rio Tinto networks operate in parallel, supporting continuous supply in the event of a single network failure.[99]

Horizon Power notes that if the Horizon Power NWIS network becomes covered, the Rio Tinto network in the West Pilbara area would be used to provide Horizon Power's covered services. Horizon Power is of the view that this situation would result in commercial complexities that would likely lead to disconnection of Rio Tinto's and Horizon Power's networks.[100] Horizon Power states that disconnection of the Rio Tinto network would require Horizon Power to incur costs to duplicate the level of redundancy currently provided by the Rio Tinto network, including:

- between $1.5 million and $2 million to provide frequency control services[101]; and

[99] Horizon Power Submission, 13.
[100] Horizon Power Submission, 37.
[101] Horizon Power predicts that Rio Tinto would also be required to expend between $1.5M and $2M to duplicate frequency control services which are currently provided to it via the Horizon Power NWIS network.

- approximately $10 million of capital expenditure on network infrastructure to provide redundant supplies to Dampier.

Horizon Power considers that disconnection of the Rio Tinto network would result in these costs being duplicated by Horizon Power and Rio Tinto for their respective networks.

Other stakeholders did not express any views regarding the geographical location of the Horizon Power NWIS network and the extent to which it is interconnected with other networks.

Conclusion

As discussed at Part 6 of this draft decision, I am not in a position to know what commercial complexities may be caused between Rio Tinto and Horizon Power as a result of coverage, or whether such commercial complexities would lead to disconnection of those parties' respective network assets. Further, although Horizon Power submits that such disconnection would impose certain costs, there is significant uncertainty about the actual costs that would eventuate.

At this time, it is only possible to conclude that there is a risk that coverage of the Horizon Power NWIS network could, indirectly, result in the disconnection Horizon Power's and Rio Tinto's Pilbara West Pilbara network assets, causing each party to incur costs to duplicate services currently provided by the other party. This risk tends to indicate against coverage, but when considered alongside all of the other factors relevant to this Draft Coverage Decision, it does not change my proposed position that the Horizon Power NWIS network should become covered under the Code.

7.2 Coverage of the network to a greater or lesser extent than requested in the Coverage Application

Section 3.4 of the Code states that if a coverage decision is that a network is covered, the coverage decision may cover the network to a greater or lesser extent than requested in the coverage application if, having regard to the part of the network that is necessary to provide covered services that applicants may seek, the Minister considers that doing so is consistent with the Code objective.

Stakeholder views

In its Submission in response to the Issues Paper, Horizon Power refers to section 3.4 of the Code and expresses the view that this section requires the Minister, in considering the Coverage Application, to consider whether coverage should extend beyond the Horizon Power NWIS network.[102]

More specifically, Horizon Power considers that coverage of the Horizon Power NWIS network alone will not resolve fundamental technical and operational challenges that prevent the NWIS from operating efficiently. Horizon Power considers that to address these challenges, broader reform to the electricity industry in the Pilbara is necessary. Horizon Power suggests the following approach for such reform:

[102] Horizon Power Submission, 4.

(a) Introduce "light-handed" regulation to establish a NWIS central system operator with rights and obligations that ensure reliable electricity supply and with statutory immunity when it acts to protect the security of the system.

(b) Reform the UTP subsidy arrangements to remove the existing perverse incentives to competition.

(c) Either through the Code or through the legislation established to deliver item (a) above, cover all networks in the Pilbara.[103]

Horizon Power considers that these reforms would "deliver a platform on which to optimise existing infrastructure and generation capacity and ensure efficient operation of the NWIS for the benefit of all parties". Horizon Power submits that because this outcome cannot be delivered through coverage of the Horizon Power NWIS network only, I should reject Alinta Energy's coverage application on the basis it does not satisfy the criteria in section 3.5(a) and 3.5(c) of the Code.

From Horizon Power's submissions mentioned above I take its position to be that I should, either:

- decide to cover the entire NWIS (that is, the Horizon Power NWIS network together with the adjacent networks owned by Alinta Energy, Rio Tinto, BHP Billiton and Fortescue Metals Group); or
- decide not to cover any of the NWIS, and instead establish a light handed regulatory regime applying to the entire NWIS.

Other stakeholders did not express any views regarding whether the NWIS should be covered to a greater or lesser extent than that requested by Alinta Energy.

Conclusion

I consider that section 3.4 of the Code provides me with a discretion to decide to cover the NWIS to a greater or lesser extent than requested by Alinta Energy, if, having regard to the part of the NWIS that is necessary to provide the covered services Alinta seeks, I consider that doing so is consistent with the Code objective.

As discussed above at section 2.3 of this Draft Coverage Decision, Alinta Energy seeks to access at least the following covered services, provided by means of the Horizon Power NWIS network:

- a connection service;
- an entry service;
- a network use of system service; and
- a common service.

In its Coverage Application and Submission in response to the Issues Paper, Alinta Energy makes clear that it seeks access to these covered services in order to enable it to enter the Horizon Power NWIS retail market (that is, to compete with Horizon Power for all retail customers that are supplied electricity through the Horizon Power NWIS network). Alinta

[103] Horizon Power Submission, 8.

Energy has explicitly stated that it does not seek access to the privately owned networks that comprise the broader NWIS, which Alinta says includes the infrastructure owned by BHP Billiton Iron Ore Pty Ltd, Rio Tinto Limited and The Pilbara Infrastructure Pty Ltd.[104]

Accordingly, I consider the part of the NWIS that is necessary to provide the covered services Alinta seeks is the Horizon Power NWIS network only, and not the broader NWIS.

I have considered Horizon Power's submissions to the effect that I should:

(a) decide to cover the entire NWIS, or, alternatively,

(b) decide not to cover the NWIS in favour of implementing a light handed regulatory regime.

With respect to covering the entire NWIS, I do not consider the statements made by Horizon Power are sufficient to support a conclusion that covering the entire NWIS network, rather than just the Horizon Power NWIS network, would be consistent with the Code objective. I note that coverage of the Horizon Power NWIS network only would be sufficient to enable Alinta Energy to gain access to all of the covered services it seeks. In circumstances where, with one exception,[105] I am not aware of third parties seeking access to covered services provided by means of the privately owned networks that form the broader NWIS, it is difficult to reach a conclusion that covering the entire NWIS, rather than the Horizon Power NWIS network only, would be consistent with the Code objective.

I do not agree with Horizon Power that it would be open to me to decide to not approve Alinta Energy's coverage application due to it being preferable to adopt a light handed form of regulation for the NWIS. While I believe there is merit in developing a light handed regulatory regime, such a regime is not inconsistent with a decision as to coverage of the Horizon Power NWIS network. I note that the Department of Treasury is, at my request, currently designing a light handed regulatory regime for electricity networks in the Pilbara, including the establishment of formal system operation arrangements.

At this time, the form and timing of implementation of any new regulatory regime is subject to a high degree of uncertainty. Design of the regime is at a relatively inchoate stage, stakeholder consultation is yet to be completed, and implementation of a final design will require the endorsement of State Parliament through the legislative process. Having regard to these uncertainties, I do not consider it would be consistent with the Code objective for me to deny coverage of the Horizon Power NWIS network on the basis that it might be preferable to introduce a new regulatory regime at some future time.

Finally, the analysis undertaken by EMCa provides some indication that the economics of duplicating the eastern section of the Horizon Power NWIS network are more favourable than the economics of duplicating the entire Horizon Power NWIS network. For the sake of completeness I note that I do not consider that this analysis is sufficient to support a decision to cover less of the network defined in Alinta Energy's application.

[104] Alinta Energy Coverage Application, 5.

[105] On 17 November 2014, Horizon Power applied for coverage of Alinta Energy's network assets in the East Pilbara region. This application was withdrawn on 5 January 2015.

Accordingly, I consider the NWIS should be covered to the extent sought by Alinta Energy. That is, that the whole of the Horizon Power NWIS network be covered, and not to any greater or lesser extent.

7.3 Date on which Final Coverage Decision takes effect

Section 3.23 of the Code states that the Minister must specify a date in the Final Coverage Decision on which the Final Coverage Decision will have effect, which date must not be earlier than 10 business days after the day the Final Coverage Decision is made. Section 3.22 of the Code requires me to make a Final Coverage Decision for the Horizon Power NWIS network within 15 business days after the deadline for submissions to this Draft Coverage Decision. Accordingly, following closure of the submission period for this Draft Coverage Decision on 18 December 2017, the Final Coverage Decision is due on 11 January 2018.

As I am proposing to decide that the Horizon Power NWIS network be covered under the Code, it is necessary to consider an appropriate date for coverage to commence. In specifying an appropriate coverage commencement date, I consider that Horizon Power should be afforded sufficient time to arrange its affairs so as to be in a position to comply with the obligations associated with coverage on and from the coverage commencement date.

I note that, if the Horizon Power NWIS network becomes covered, Horizon Power will be required to submit a proposed access arrangement to the ERA within six months after the day on which coverage commences.[106] Horizon Power would also be required to comply with other obligations applying to covered electricity networks from the coverage commencement date, for example, the ring-fencing requirements set out in Chapter 13 of the Code.

I am interested in hearing stakeholders' views on matters that are relevant to specifying an appropriate coverage commencement date for the Horizon Power NWIS network, and invite stakeholders to address this issue in their submissions to this Draft Coverage Decision.

[106] *Electricity Networks Access Code 2004* s 4.1.

Appendix A – EMCa Report on Assessment of Horizon Power's NWIS Network Assets Against Access Code Section 3.5(b)

EMCa
energy market consulting associates

Alinta Energy Coverage Application – Horizon Power's NWIS network assets

Assessment against Access Code section 3.5(b)

Report to

Public Utilities Office, Department of Treasury

from

Energy Market Consulting associates

November 2017

This report has been prepared to assist the Western Australian Minister for Energy with the decision regarding the application by Alinta Sales Pty Ltd for coverage of the network assets owned by Horizon Power in the North West Interconnected System. The Minister for Energy's determination is conducted in accordance with the Electricity Networks Access Code. This report covers a particular and limited scope as defined by the Public Utilities Office on behalf of the Minister for Energy and should not be read as a comprehensive assessment of proposed coverage of network assets under the Electricity Networks Access Code 2004 (WA) that has been conducted taking account of all relevant criteria and factors relevant to a coverage determination.

This report relies on information provided to EMCa by the Public Utilities Office, Alinta Energy, and Horizon Power. EMCa disclaims liability for any errors or omissions, for the validity of information provided to EMCa by other parties, for the use of any information in this report by any party other than the Public Utilities Office and for the use of this report for any purpose other than the intended purpose.

In particular, this report is not intended to be used to support business cases or business investment decisions nor is this report intended to be read as a legal interpretation of the application of the Electricity Networks Access Code 2004 (WA) or other legal instruments. EMCa's opinions in this report include considerations of materiality to the requirements of the Public Utilities Office on behalf of the Minister for Energy and opinions stated or inferred in this report should be read in relation to this over-arching purpose.

Except where specifically noted, this report was prepared based on information provided by Public Utilities Office staff prior to 3 November 2017 and any information provided after this time may not have been taken into account.

Some numbers in this report may differ from those shown in Alinta Sales Pty Ltd's application or other documents due to rounding.

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About EMCa

Energy Market Consulting associates (EMCa) is a niche firm, established in 2002 and specialising in the policy, strategy, implementation and operation of energy markets and related network management, access and regulatory arrangements. EMCa combines senior energy economic and regulatory management consulting experience with the experience of senior managers with engineering/technical backgrounds in the electricity and gas sectors.

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Executive Summary

Purpose of this report

1. The purpose of this report is to provide technical advice to the Minister for Energy pertaining to a specific aspect of Alinta Sales Pty Ltd's ('Alinta') coverage application[1] under the Electricity Networks Access Code 2004 (WA) ('the Access Code') for coverage of network assets owned and operated by Horizon Power in the North West Interconnected System ('NWIS').[2]

2. The Public Utilities Office, on behalf of the Minister for Energy, has requested that we provide advice regarding Alinta's application in relation to section 3.5(b) of the Access Code ('Criterion (b)'), including matters raised in:
   - Alinta's application;
   - The questions posed in section 3.4.2 of the Public Utilities Office's Issues Paper;[3]
   - Submissions received in response to the Issues Paper.

Interpretation of Criterion (b)

3. Criterion (b) in section 3.5 of the Access Code requires an answer to the following question:

   'Would it be uneconomic for anyone to develop another network to provide the covered services provided by means of the network?'

4. We have adopted the Public Utilities Office's interpretation of the application of Criterion (b) as:

[1] Alinta Energy, *Coverage Application under the Electricity Networks Access Code 2004 (WA),* August 2017

[2] The definition of the NWIS in the *Electricity Transmission and Distribution Systems (Access) Act 1994 (WA)* is: *the interconnected transmission and distribution systems, generating works and associated works – (a) located in the Pilbara region of the State; and (b) into which electricity is supplied by one or more of the electricity generation plants at Dampier, Port Hedland and Cape Lambert, as expanded from time to time.*

[3] Department of Treasury, Public Utilities Office, *Issues Paper – Coverage of Horizon Power electricity network in the North West Interconnected System, 15 September 2017*

> *'whether it would be privately profitable for anyone to develop another distribution and transmission network to provide the covered services needed to compete in a related market, and which are currently available from the Horizon Power NWIS network, on a stand-alone basis or as part of a larger project.'*

Assessment of the likelihood of profitability of developing another network to access Horizon Power's customers in the NWIS

5. Alinta's application pertains to all Horizon Power's services delivered via Horizon Power's NWIS network, including transmission[4] and distribution[5] assets in the 'West Pilbara'[6] and 'East Pilbara'[7] regions of the NWIS and the 220kV transmission assets that connect the two regions.

6. Alinta concludes that

> *'duplication of Horizon Power's NWIS Network by construction of a separate new facility (by anyone) is infeasible and cannot be expected to be profitable or economic.'*[8]

7. We have assessed Alinta's modelling[9] and consider it reasonable to accept Alinta's conclusion that it would not be profitable or economic to construct another network, although we consider it would be logistically feasible. We have tested the sensitivity of Alinta's analysis to significant variations of key input assumptions and the conclusion is robust for all of the cases we considered.

8. The results of our analysis and the 'base case' (i.e. Alinta's own assessment) are shown in Table 1.

[4] Horizon Power's NWIS transmission assets are at 220kV, 132kV, and 66kV

[5] Horizon Power's NWIS distribution assets are at 33kV and below

[6] Karratha, Dampier, and Cape Lambert areas, including Roebourne and Harding River

[7] Port Hedland area and Goldsworthy

[8] Alinta, Coverage Application, page 13

[9] As described in section 4.3 of its Coverage Application

Table 1: Scenario analysis for 'duplication' of Horizon Power's NWIS Network

Option	Core assumptions	T&D cost ($m)	NPV ($m)
Base Case	**Alinta's analysis** Alinta network cost assumption Alinta tariff assumption 2 year construction time Alinta acquires 30% of L4+P2 customers by year 17 Alinta's load assumptions	1,194	**(1,062)**
1A	**EMCa scenario** Central case network cost Alinta tariff assumption 4 year construction time Alinta acquires 30% load share by year 9 Alinta's load assumptions	979	**(670)**
1B	**HP's market share scenario** Central case network cost Alinta tariff assumption 4 year construction time Alinta acquire 65% load share by year 5 Horizon Power load assumptions	979	**(390)**
1C	**EMCa scenario** Low case network cost Alinta rtarriff assumption 4 year construction time Alinta acquires 30% load share by year 9 Alinta's load assumptions	831	**(441)**
1D	**EMCa scenario** Central case network cost Central case tariff 4 year construction time Alinta acquires 30% load share by year 9 Alinta's load assumptions	979	**(574)**
1E	**EMCa scenario** Low case network cost Central case tariff 4 year construction time Alinta acquires 30% load share by year 9 using Alinta's load assumptions	831	**(30)**

Source: EMCa analysis; Alinta analysis (per Figure 4, of its coverage application)

Assessment of the likelihood of a profitable approach to provide covered services to a sub-set of Horizon Power's customers in the NWIS

9. In assessing the economics of access to the NWIS, we have noted the high cost of duplicating the entire Horizon Power network (i.e. with a central estimate in excess of $1bn). There are parts of the Horizon Power system for which an equivalent network could provide access to significant loads without the whole network needing

to be duplicated. While noting that Alinta has applied for coverage of the whole of Horizon' Power's NWIS network, we extended our analysis to provide broad indications of these sub-network scenarios, should they be considered relevant. On balance, however, we consider that it would not be economic to build such networks on a commercial basis to supply the customers that Alinta seeks access to.

Assessment of the impact of likely emerging factors

10. With the current cost and performance trends in distributed energy resource (DER),[10] application of DER rather than central generation may also progressively become a profitable means for providing services to customers currently connected to Horizon Power's distribution networks in the NWIS. Modelling such scenarios would involve forecasting future technology change and the future economics of such evolving technologies and is beyond the scope of the current report. Delays of even of a few years in gaining access may present significantly different economics to those considered today.

[10] Such as solar, wind and energy storage combinations with bi-directional energy trading using distribution network infrastructure

1 Introduction

1.1 Purpose and scope of this report

11. The purpose of this report is to provide the Minister for Energy with technical advice on a specific aspect of Alinta's application for coverage of Horizon Power's network assets in the North West Interconnected System, under the Electricity Networks Access Code 2004 (WA).

12. The Public Utilities Office has requested that we provide advice regarding Alinta's application in relation to section 3.5(b) of the Access Code. Our advice is based on a limited scope review of Criterion (b). Specifically, we have been asked to assess the following questions, for which PUO also sought submissions from stakeholders in its Issues Paper:

    - Are the assumptions Alinta Energy has used to support its conclusion that duplication of the network is not profitable, reasonable?
    - Is it likely to be profitable for any party to develop another network to provide the same network services as provided by the Horizon Power NWIS network, as needed to compete in a related market, on a standalone basis?
    - Would it be privately profitable to duplicate transmission assets used to service large customers in the Karratha and Port Hedland regions?
    - Are there any factors likely to emerge in the foreseeable future that will affect the cost and profitability of duplicating the network?

13. This report summarises our approach, analysis, and findings.

1.2 Our approach

1.2.1 Approach process

14. We have used a combination of the following in our analysis and review:

    - Desk-top assessment of Alinta Energy's analysis;
    - Desk-top assessment of information provided in Horizon Power's submission;

- Information provided through requests to Alinta Energy, Horizon Power, and the Public Utilities Office;
- Development of a model to allow assessment of Alinta's approach and assumptions and to test alternative network scenarios; and
- Meetings with key stakeholders to confirm understanding and interpretation of information provided.

1.2.2 Information sources

15. We have examined relevant documents provided by Alinta Energy and Horizon Power in support of their respective positions with respect to the application of Criterion (b). Horizon Power and Alinta Energy both provided further information at the on-site meetings (Horizon Power only) and further documents in response to our information requests. These documents are referenced directly where they are relevant to our assessment.

16. We have also reviewed the Public Utilities Office's Issues Paper and other documents provided to us by the Public Utilities Office. The documents are referenced directly where they are relevant to our assessment.

1.3 About this report

1.3.1 Report structure

17. The following sections of our report comprise:
    - Section 2: Background information on the NWIS and Criterion (b);
    - Section 3: Assessment of Alinta Energy's application against Criterion (b);
    - Section 4: Assessment of possible alternative supply options not requested by Alinta;
    - Section 5: Consideration of other factors likely to emerge; and
    - Appendix 1: Summary of public submissions (pertinent to Criterion (b))

1.3.2 Rounding of numbers and cost base

18. Numerical totals in tables may not present as being equivalent to the sum of the individual numbers due to the effects of rounding. This report refers to costs in 2017 dollars unless otherwise denoted.

2 Background

2.1 The network that is subject to the coverage application

19. Alinta's coverage application is in respect of Horizon Power's transmission (66kV and above) and distribution (below 66kV) network infrastructure facilities in the Pilbara region of Western Australia.[11]

2.2 Overview of coverage criterion (b)

20. Alinta's[12] and Horizon Power's[13] interpretations of the meaning of Criterion (b), align with the Public Utilities Office's interpretation, which is:

> *'the issue that lies to be determined in applying section 3.5(b) of the Code to the Horizon Power NWIS network is whether it would be privately profitable for anyone to develop another distribution and transmission network to provide the covered services needed to compete in a related market, and which are currently available from the Horizon Power NWIS network, on a stand-alone basis or as part of a larger project.'*[14]

21. We have also adopted the Public Utilities Office's guidance (based on the National Competition Council's approach) for effective consideration of the criterion:

> *'In order to effectively consider this criterion in this way, it will be necessary to obtain information about the cost of duplicating all or parts of the Horizon Power NWIS network. The National Competition Council's Guide to Declaration of Services provides some information on what type of information may be*

[11] Alinta, *Coverage Application under the Electricity Networks Access Code 2004 (WA) – An application by Alinta Energy for coverage of network assets owned and operated by Horizon Power,* page 1

[12] *Ibid, page 10-12*

[13] Horizon Power, *Submission in response to the Issues Paper,* page 54

[14] Public Utilities Office, *Issues Paper,* page 15

necessary to assess whether the private profitability test is satisfied. The National Competition Council suggests that information will be required about:

- *the expected capital and operating costs of developing and operating a new facility;*
- *the projected use of the facility and revenues;*
- *the required rates of return on the debt and equity necessary to finance the development of the facility; and*
- *the basis for such estimates and the assumptions underlying them.*

22. Our analysis and findings are presented in Section 3 in which we address each of these aspects of Alinta's modelling.

2.3 Overview of Alinta's coverage application – Criterion (b) assessment

23. Alinta has assumed that an applicant must duplicate all of Horizon Power's NWIS transmission and distribution network assets for the purposes of accessing the customers currently supplied via the Horizon Power's Network. With reference to Alinta's model,[15] the key features of its analysis are:

- Alinta's estimated capital costs are shown in Table 2, with the capital to build the network assumed to be incurred in years 1 and 2 (of its model);
- Alinta's assumed cost of energy and energy revenue are shown in Table 3;
- The term of its analysis is 17 years with an assumed discount rate of 6%; and
- Alinta's assumed market share builds from 10% in year 3 to 30% in year 17 at an annual rate of +2%.

Table 2: Alinta's expected capital costs to duplicate the Horizon Power NWIS Network

Element	$m
Transmission lines 220kV	168
Transmission lines 66kV	174
Distribution lines	594
Substations and switchyards	150
Transformers and associated equipment	109
Total capital cost	1,194

Source: Alinta Coverage Application, Figure 4, page 14

[15] Alinta Coverage Application, Figure 4, page 14

Table 3: Alinta's expected energy cost and revenue (for supplying L4 & P2 tariff customers)

Element	$/MWh
Energy cost (ex. Return)	107.81
Energy cost (including capacity charge)	182.81
Revenue	330.08

Source: Alinta Coverage Application, Figure 4, page 14

24. Table 4 shows the results of Alinta's analysis as presented in its coverage application and the results of sensitivity analyses it quotes in its response to the Issues Paper.[16]

25. Based on its modelling, Alinta concludes that the cost to duplicate the Horizon NWIS Network is '*clearly unprofitable and therefore prohibitive.*'[17]

Table 4: Results of Alinta's Criterion (b) modelling

Case	Cost of capital study		Load growth study	
	Cost of capital	NPV ($m)	Load growth rate	NPV ($m)
Base case	6%	(1,062)	0%	(1,062)
Variation 1	0%	(1,021)	6% p.a.	(1,008)
Variation 2	20%	(1,059)		

Source: Alinta Excel model per Figure 4 of its coverage application and sensitivity analyses in its response to the Issues Paper

[16] Alinta Energy, *Submission - Issues Paper, page 20*

[17] *Ibid, page 19*

3 EMCa assessment of Alinta's economic modelling

3.1 Introduction

26. In this section we (i) consider Alinta's analysis, including by commenting on the reasonableness of the assumptions underpinning its modelling, (ii) consider alternative scenarios, and (iii) consider whether there are any factors likely to emerge in the foreseeable future that will affect the cost and profitability of duplicating the network? We consider this modelling strictly in accordance with Alinta's coverage application, which is for access to all of Horizon Power's NWIS network[18].

3.2 Our assessment

3.2.1 Alinta's model

27. Alinta's model is a relatively simple NPV analysis that we consider to be satisfactory for the purpose of exploring the profitability of the proposed investment. In brief, the model covers a two-year notional construction period, with 15 years of subsequent operations. The construction cost is spread equally between the two construction years.

28. Alinta assumes that its acquired load is based on taking progressively increasing market share from Horizon Power over the 15 years of operation, and assuming no growth in aggregate customer load in the system. The model scope covers overall profitability of a notional end-to-end operation, involving generation costs and retail sales price assumptions in addition to the costs of building and operating the network.

[18] The scenarios in which we consider coverage of sub-regions is covered in section 4

29. Alinta calculates a net cash flow and discounts that using an assumed 6% cost of capital. The model does not account a residual value of net cashflow beyond the 15-year operating horizon. While it could be argued that there are risks in assuming a long-term revenue stream in a competitive market situation, we assessed the effect of assuming that net cashflows extended to an assumed 50-year life for the network. Including the residual value reduces the negative profitability result, as we note in section 3.2.4.

30. Alinta has quoted a generation operations and maintenance (O&M) cost assumption of $2.7m per year. It does not appear to have included a network O&M cost in its modelling. Including this would result in a more negative economic result.

3.2.2 Alinta Energy's assumptions

31. In Table 4 we show our assessment of the reasonableness of the assumptions in Alinta's model. Our assessment of reasonableness is made in the context of the intended purpose of the analysis and does not negate the need for sensitivity analyses.

32. In summary, we consider that Alinta's assumptions are:
    - With two exceptions, reasonable; and
    - In aggregate, they represent a bias towards overstating the extent to which the NPV is negative.

Table 5: EMCa comments on key Alinta assumptions

Category	Element	Assumption	EMCa comment
Network costs	Transmission & distribution replacement cost for Horizon Power network assets	$1194m	***Reasonable – at high end*** [It is within 20% of EMCa's own check cost estimate and Horizon Power's estimate]
Network construction	Construct $1.2billion assets	2 years	***Not reasonable – too fast*** [It is unlikely that Alinta could design and construct $1.2billion worth of T&D assets and commission them in less than 4 years
Load forecast	L4 and P2 tariff customer demand (annual)	363 GWh	***Reasonable – at low end*** [It is within 20% of Horizon Power's actual sales figures]
	Growth rate	0%	***Reasonable*** [see comments below]
Revenue	L4 & P2 tariff – fixed + variable	$330.08/MWh	***Reasonable – at low end*** [Within 20% of the average annual charge for all Horizon Power customers (excluding Large customers)]
	Market share acquisition	30% by year 17 (15 years after construction of new network assets)	***Not reasonable – at low end*** [This appears to be an unreasonably slow acquisition rate given Alinta's existing presence in the market]
Energy cost	Heat rate	12.5 GJ/MWh	***Reasonable – at low end*** [Credible source is used]
	Gas price	$6/GJ	***Reasonable*** [A credible source is used, and it is commensurate with long term supply contract]
	Gas transport	$1.5/GJ	***Reasonable – at high end*** [APA's published tariff for the Pilbara Pipeline System is a postage stamp $0.79/GJ, but the assumed cost may represent Alinta's costs]
	Variable O&M	$7.5/MWh	***Reasonable*** [This is within the typical range for gas-fired generators]
	Cost of energy (Ex. return)	$107.81/MWh	***Reasonable – at low end*** [The estimate is reasonable based on Alinta's other assumptions]
	Cost of energy (with capacity charge, ex-GST)	$182.81/MWh	***Reasonable – at low end*** [The estimate is reasonable based on Alinta's other assumptions]

Source: EMCa analysis

3.2.3 Network development cost

33. EMCa has developed a check estimate of the key cost components of Horizon Power's NWIS network by:
    - Assigning estimated unit costs to actual line lengths for all the key line sections from 220kV to 33kV;
    - Assigning estimated substation and switchyard costs to the equivalent Horizon Power configuration (e.g. at Cape Lambert Terminal there are multiple voltage levels); and
    - Including East and West Pilbara distribution network costs based on the average unit costs from the more recent (Phase 1 and Phase 2) Pilbara Underground Power Project actual figures.

34. As a simplifying assumption, we have not modelled the impact of network operating cost as we assume that it will not have a material impact on the overall NPV results and Alinta has not included O&M in its analysis

35. The individual line and substation/switchyard costs were derived from a combination of industry literature and advice from Horizon Power regarding recent development costs and the typical 'cost loading factor' to account for the added costs of designing and constructing assets in the Pilbara, noting cyclone ratings are required.

36. Actual distribution development costs for the more recent phases of the Pilbara Underground Power Project were provided by Horizon Power and we derived approximate distribution sub-network replacement costs (for underground construction) by pro-rating the cost by the number of lots in the respective townships. We compared the Horizon Power per lot costs against industry literature for underground network construction and found that the Horizon Power costs are reasonable.

37. We also derived a 'high' case transmission and distribution (T&D) estimate (approximately 15% higher than our central case estimate) and a 'low' case estimate (approximately 20% lower than the central case estimate).

38. We compared our central case 'bottom-up' transmission and distribution network replacement cost estimate of $979m against Horizon Power's own estimate. Our estimate is commensurate with Horizon Power's and approximately 20% lower than Alinta's.

3.2.4 Sensitivity analysis

39. In the Issues Paper, PUO has highlighted Alinta's 'no load growth' assumption. In its response, Alinta contends that the combination of low iron ore prices and the current economic environment mean that this is a reasonable assumption.

40. Developing a demand forecast for Horizon Power's loads in the NWIS is not within our scope of work, however we observe that: (i) the economic climate in the NWIS may recover from the current low base over the next ten years, and (2) it is possible that distributed energy resources (such as rooftop solar and battery storage) will mitigate residential, commercial and industrial energy demand growth from the network. On balance we consider Alinta's assumption is reasonable as a 'base case' assumption and, regardless, for its modelled scenario, Alinta has

demonstrated in its response that its conclusion that it is 'unprofitable and uneconomic to duplicate' the network, is not sensitive to the load growth rate.

41. Alinta's response to the Issues Paper also demonstrates that the results of its modelling are not sensitive to changes in the cost of capital.[19] However, given our overarching concern with Alinta's assumptions, we conducted further sensitivity analyses, with the input assumptions and results shown in Table 6.

42. We have not considered a scenario in which the load growth rate is above zero because network planning studies would be required to determine the additional network augmentation cost and timing to meet the loads (with assumptions also required to be made about where the load increase occurs). Network planning studies were beyond the scope of our work.

43. The BASE case parameters in Table 6 represent the key inputs applied by Alinta in its Model. The basis for the alternative inputs in Cases 1A-1E are:

- **Alinta market share 'cap' and time to achieve the cap** – Alinta assumed that it would progressively acquire 2% market share from a starting point of 10% in year 3, with 30% market share achieved in year 17 (the final year of its analysis). We consider this to be a 'low' (i.e. conservative) case and we have applied a 'central' case in which the load acquisition rate is double Alinta's assumed rate with the cap of 30% being achieved in year 9. We have also considered a 'high' case in which Alinta acquires a 65% market share by year 5;
- **Year 1 Horizon Power load** - in all sensitivity studies, we have assumed the reported amount in the Issues Paper;[20]
- **Construction period** - In all the sensitivity studies, we have assumed what we consider a more realistic 5-year construction period to build the approximately. $1billion worth of assets across the Pilbara; and
- **Average sales revenue** – Based on the sales volumes in the tariff segments reported in the Issues Paper,[21] we have determined a 'high' case value of $399/MWh (approx. 20% higher than Alinta's assumption); and
- **Residual value** – It seems unlikely that sales volumes progressively built up over the 15-year operating period would cease at that point. On the other hand, a commercial assessment of profitability is unlikely to place much weight on projected cashflows much beyond 15 years of operation. To stress-test Alinta's application against Criterion (b), we have assumed a residual value for the net cashflows at that point to continue for the remaining economic life of the asset, being 50 years. We consider that this assumption provides an upper boundary to the results, by enhancing the economics beyond what we would consider to be a reasonable base case.

[19] Which we confirmed by using Alinta's model provided to us

[20] Public Utilities Office, *Issues Paper, Table 4* – not including FMG's load of 82GWh

[21] *Ibid*

Table 6: Scenario analysis for 'duplication' of Horizon Power's NWIS Network

CASE	T&D cost ($m)	Alinta market share cap (%)	Time to achieve market share cap (years)	Year 1 annual load (GWh)	Network construction time (years)	Average sales revenue ($/MWh)	NPV ($m)
BASE	1,194	30%	17	363	2	330	**(1,062)**
1A	979	30%	9	386	5	330	**(670)**
1B	979	65%	5	386	5	330	**(390)**
1C	831	30%	9	386	5	330	**(441)**
1D	979	30%	9	386	5	399	**(574)**
1E	831	65%	5	386	5	330	**(30)**

Source: EMCa analysis

44. All scenarios confirm that it is unlikely to be privately profitable for anyone to develop another network to secure access to Horizon Power's customer base across the NWIS.

45. If a residual value is not included, the results above are more negative: for example, excluding residual value results in an NPV of -$784m for case 1A, and -$336m for case 1E.

3.3 Practical barriers to construction

46. In its coverage application, Alinta states that '*The development of a separate, new facility (by anyone) is infeasible due to existing physical barriers, such as access rights, tenure, and the physical availability of land in congested urban areas.*'[22]

47. Alinta provides further information in support of its doubts about the practical feasibility of building a competing network in its response to the Issues Paper.[23] We consider that land and other access barriers are likely to be material but not insurmountable and would likely extend the construction time and cost in some areas.

48. We have sought to take this difficulty and likely impact into account in (i) our cost estimates, (ii) in our sensitivity and alternative scenario analyses (e.g. by extending the transmission and network construction time), and (iii) by basing our distribution network cost estimates on the recent actual cost of the Pilbara Underground Power project. However, there is a valid argument that the challenges described by Alinta are more likely to add to further cost risk to such a project, than we have allowed.

3.4 Conclusion on profitability of duplicating Horizon Power's NWIS network

49. We have assessed the reasonableness of Alinta's modelling and model assumptions. We consider that most of Alinta's assumptions are in a reasonable range, although it could be considered that there is a bias in Alinta's modelling towards understating the benefits and overstating the costs. Nevertheless, within a

[22] Alinta, *Coverage Application*, page 12

[23] Alinta Energy, *Response to Issues Paper',* page 21

wide range of assumptions that we have tested, our modelling supports Alinta's conclusion that it would not be privately profitable to duplicate Horizon Power's NWIS network.

4 Observations on the economics of alternative scenarios

4.1 Alternative scenarios

50. Alinta's application seeks coverage for the whole of HP's NWIS network, and therefore our opinion relates strictly to what Alinta has sought. However, we have noted that the economics of supplying customers in sub-regions of the HP system through a dedicated network (as opposed to through access to HP's network) are quite different from the economics of obtaining access to the entire network. The information gathered to assess coverage of the whole of HP's network allows us to provide indicative economic assessments for several sub-regions, across construction and market scenarios similar to those that we have presented in Section 2 for Alinta's coverage application.

51. We have considered three sub-region scenarios:
    - Scenario 2: Supply to East Pilbara region only;
    - Scenario 3: Supply to West Pilbara region only; and
    - Scenario 4: Duplication only of the transmission line linking east and west Pilbara.

4.2 Scenario 2 – East Pilbara only

4.2.1 Description

52. All of Horizon Power's covered services are provided to customers connected directly or indirectly to Horizon Power's distribution network. Instead of duplicating all of Horizon Power's network assets in the NWIS to access all Horizon Power's

customers, we have considered an alternative scenario in which transmission and distribution assets are constructed to access customers only in the East Pilbara.

53. We have studied four cases under this scenario, with the underlying assumptions described in Table 7. Four common assumptions are that no duplicate 220kV assets are required,[24] the construction period is four years, the average revenue will be $330/MWh (i.e. Alinta/Base Case assumption), and there is 0% load growth.

54. For options 2A, 2B and 2C, we assume that adequate network assets are constructed to provide access to all Horizon Power customers in the East Pilbara region. For options 2D, 2E and 2F we assume that selected load areas[25] are not accessed by new infrastructure. We were not provided with information on the volume of Horizon Power's sales within the East Pilbara and so, from anecdotal information only, we have assumed that 60% of Horizon Power's sales are in East Pilbara, and that a more limited network excluding the selected load areas referred to above would reduce the available load to 50%.

55. As with our assessment described in section 3.2, we have not included a positive load growth rate case because this would require network planning to determine what, if any, network augmentation would be required to provide adequate security and reliability of supply. We have also confined this analysis to the same time horizon of 17 years as used by Alinta (i.e. without residual values) and we consider this to be a realistic assumption for assessing 'private profitability'.

Table 7: East Pilbara supply options – modelling assumptions and results

CASE	T&D cost ($m)	Alinta market share cap (%)	Time to achieve market share cap (years)	Year 1 annual load (GWh)	Network construction time (years)	Average sales revenue ($/MWh)	NPV ($m)
2A	246	30%	17	232	4	330	**(169)**
2B	246	50%	7	232	4	330	**(101)**
2C	246	65%	5	232	4	330	**(52)**
2D	174	30%	17	193	4	330	**(112)**
2E	174	50%	7	193	4	330	**(56)**
2F	174	65%	5	193	4	330	**(15)**

Source: EMCa analysis

56. As shown in Table 7, with the high cost of the 220kV infrastructure connecting East and West Pilbara removed from the analysis, the economics of supplying these sub-regions through a duplicated network are considerably less unfavourable than the economics of supplying through duplication of the whole of Horizon's NWIS. Nevertheless, across a wide range of scenarios, the analysis indicates that this would be unprofitable.

[24] i.e. at least commensurate with current arrangements, noting that Alinta currently connects to Horizon Power's network at Wedgefield and Murdoch Drive substations (at 66kV) from its Hedland Power Station and with BHP's network at Boodarie Power Station

[25] Southwest Creek, Goldsworthy

4.3 Scenario 3 – West Pilbara only

4.3.1 Description

57. Similar to scenario 2, instead of duplicating all of Horizon Power's network assets in the NWIS to access all Horizon Power's customers, we have considered an alternative scenario in which transmission and distribution assets are constructed to access customers only in the West Pilbara.

58. We have studied four options under this scenario, with the underlying assumptions described in Table 8. Assumptions common to each case are: (i) a 220kV interconnection will be required to supply Alinta customers in the West Pilbara from Alinta's generation in the East Pilbara,[26] (ii) no transmission or distribution assets are constructed to Dampier[27], (iii) the construction period is four years, (iv) the average revenue will be $330/MWh (i.e. Alinta/Base Case assumption), and (v) there is 0% load growth.

59. As with our assessment described in section 4.2, we have not included a positive load growth rate case because we this would require network planning to determine what, if any, network augmentation would be required over time to provide adequate security and reliability of supply.

60. Option 3A, 3B and 3C assume that adequate network assets are constructed to provide access to all Horizon Power customers in the East Pilbara region (except at Dampier).[28] Option 3D, 3E and 3F assume that network infrastructure is constructed to access only loads in the vicinity of Karratha Terminal.[29] Consistent with the assumptions we made for the East Pilbara, we have assumed that 40% of Horizon Power's sales are in West Pilbara, and that a more limited network excluding the selected load areas referred to above would reduce the available load to 30%. Our other assumptions are the same as for Option 2 – East Pilbara.

[26] To provide commensurate security of supply with the current arrangement a new double circuit 132kV transmission line interconnecting Karratha Terminal and Cape Lambert Terminal has been included in the cost estimate. If Alinta were to acquire generation in the West Pilbara, this may obviate the need for the 220kV connection, noting that for comparison purposes, the current levels of reliability and security of supply would need to be achieved.

[27] We considered that there are too few customers to sensibly include the approximate 20km 132kV line at an approximate cost of $18m in the analysis

[28] Load areas assumed to be supplied include Karratha (Pegs Creek, Bulgarra, etc), Point Samson, Roebourne and Harding River

[29] i.e. not Point Samson, Roebourne, or Harding River

Table 8: West Pilbara supply options – modelling assumptions

CASE	T&D cost ($m)	Alinta market share cap (%)	Time to achieve market share cap (years)	Year 1 annual load (GWh)	Network construction time (years)	Average sales revenue ($/MWh)	NPV ($m)
3A	574	30%	17	154	4	330	**(489)**
3B	574	50%	7	154	4	330	**(444)**
3C	574	65%	5	154	4	330	**(411)**
3D	530	30%	17	116	4	330	**(459)**
3E	530	50%	7	116	4	330	**(425)**
3F	530	65%	5	116	4	330	**(400)**

Source: EMCa analysis

61. As shown in Table 8, the high cost of 220kV infrastructure assumed in this scenario makes it very unlikely that a privately profitable network development scenario could be developed.

4.4 Scenario 4 - Duplication of transmission assets only

62. The Issues Paper queries whether it would be privately profitable to duplicate transmission assets only. Horizon Power[30] advises that no Horizon Power consumers are directly connected to its transmission network.

63. Alinta confirms that it is seeking network access to supply customers that are distribution-connected and that supply to these customers is not possible from Alinta's generation resources without the relevant transmission network infrastructure. In effect, therefore, this is scenario 3 that we have modelled, as above, albeit with the addition of the necessary distribution infrastructure that Alinta requires.

64. We therefore consider that a scenario in which only Horizon Power's NWIS transmission assets are duplicated would not be privately profitable.

4.5 Conclusion on the economics of alternative coverage scenarios

65. We have considered alternative supply scenarios centred around duplication of selected assets to access target load centres in the East and West Pilbara separately. This is not what Alinta has sought in its coverage application, and therefore the assumptions we have used are necessarily indicative only. Nevertheless, the analysis indicates that such supply scenarios would still not be economic, in the sense of privately profitability, either in the East or West Pilbara.

[30] At a meeting on 13 October 2017

5 Consideration of other factors likely to emerge

5.1 Introduction

66. There are three major components that determine the economics underpinning the Criterion (b) assessment for the application for coverage by Alinta:
    - The cost of the new network infrastructure;
    - The cost of supply (fixed and variable); and
    - The revenue from the customers supplied.

67. We consider that there are three factors which are likely to emerge that will impact on the economics of developing an alternative network to provide services necessary to compete in a related market. These three factors in combination, may have the effect of reducing each of the components listed above.

5.2 Strong and sustained load growth

68. Alinta has assumed zero load growth in its analysis. We noted in section 3.2 that this is a reasonable base case and that Alinta has undertaken a sensitivity analysis (using its own model) which demonstrates that its result is not sensitive to significant load growth rates (+6%p.a.).

69. However, we also consider that, overall, Alinta's model and assumptions lead to a conservative result and that strong and sustained load growth in parts of the region served by Horizon Power's NWIS could provide a larger market opportunity than has currently been allowed for. We have not undertaken a similar sensitivity analysis with alternative higher growth case assumptions because we consider it prudent to undertake network planning studies to determine if network augmentation would be required (and when) to support such load growth. There are many variables in such

a study and this is beyond the scope of the necessary assessment of Alinta's current application.

5.3 Microgrids – distributed generation, energy storage, and energy exchange at the local level

70. Instead of constructing transmission and generation infrastructure to access Horizon Power's customers across the East and West Pilbara (with the inherent massive cost of the 220kV infrastructure required to connect the two regions), it is likely to become increasingly viable to construct micro-grids in each load area with local generation only.

71. To avoid the need for centralised generation and transmission infrastructure, micro-grids would:
    - Need to be based on local generation (e.g. wind, solar, storage), and
    - Likely require only limited distribution infrastructure to facilitate safe energy exchange.

72. Micro-grids are already functioning in Australia (and globally), and energy exchange/brokering is a developing service. The projected ongoing reduction in the cost of energy storage and renewable energy generation may lead to an economically viable alternative for supply to many groups of customers in the Pilbara, particularly if cost reflective pricing was more widespread in the Pilbara.

5.4 Cost reflective electricity pricing and more granular application of the TEC / TEP

73. As PUO has noted in its Issues Paper, retail tariffs for small customers are set by government policy to be uniform across WA. As a result, retail tariffs in the NWIS are at a level below the cost that Horizon Power incurs in supplying them. Further, from our limited analysis of the economics of sub-regions in the NWIS, we expect that more detailed cost-of-supply analysis would find that costs (and therefore customer profitability) vary considerably in different parts of the NWIS.

74. Policy initiatives could potentially lead to more economic supply options being developed through improved profitability of providing competitive services to WA customers outside the SWIS. Such initiatives could include greater cost reflectivity in electricity pricing, policy moves to apportion subsidy payments under the Tariff Equalisation scheme on a basis that reflects cost of supply at a more granular level, or policy moves that would allow parties other than Horizon Power access to these same subsidies on behalf of NWIS and remote customers,

Appendix 1: Summary of public submissions

Six submissions in response to the Public Utilities Office's request for submissions on the matters raised in the Issues Paper were provided to EMCa to take into account as part of our review. A summary of the submissions as they pertain to Criterion (b) are provided in the table below.

Submitted by	Summary of comments per Criterion (b)
Alinta Energy	Alinta provides its answers to each of the questions posed in the Issues Paper, as summarised below: *Question 10*: It is not privately profitable to develop another network; it is not likely to be feasible to acquire the necessary access rights and tenure in a conjected urban area to develop the network *Question 11*. The private profitability test should not separate the duplication of the transmission and distribution assets *Question 12:* sensitivity analyses show that the conclusions from Alinta's modelling are robust *Question 13:* the private profitability test should not separate the duplication of the transmission and distribution assets. *Question 14:* Alinta does not consider that there are any factors that may emerge and significantly change the economic proposition of duplicating the Horizon NWIS Network.
ATCO Australia	No specific comments regarding Criterion (b)
Fortescue Metals Group	No specific comments regarding Criterion (b)
Horizon Power	*'Alinta's application is likely to satisfy the test in section 3.5(b) of the Code, that it would be uneconomic for anyone to develop another network to provide the covered services provided by means of the network for Horizon Power residential customers.'*
Rio Tinto	No specific comments regarding Criterion (b)
TransAlta Energy Australia	No specific comments regarding Criterion (b)