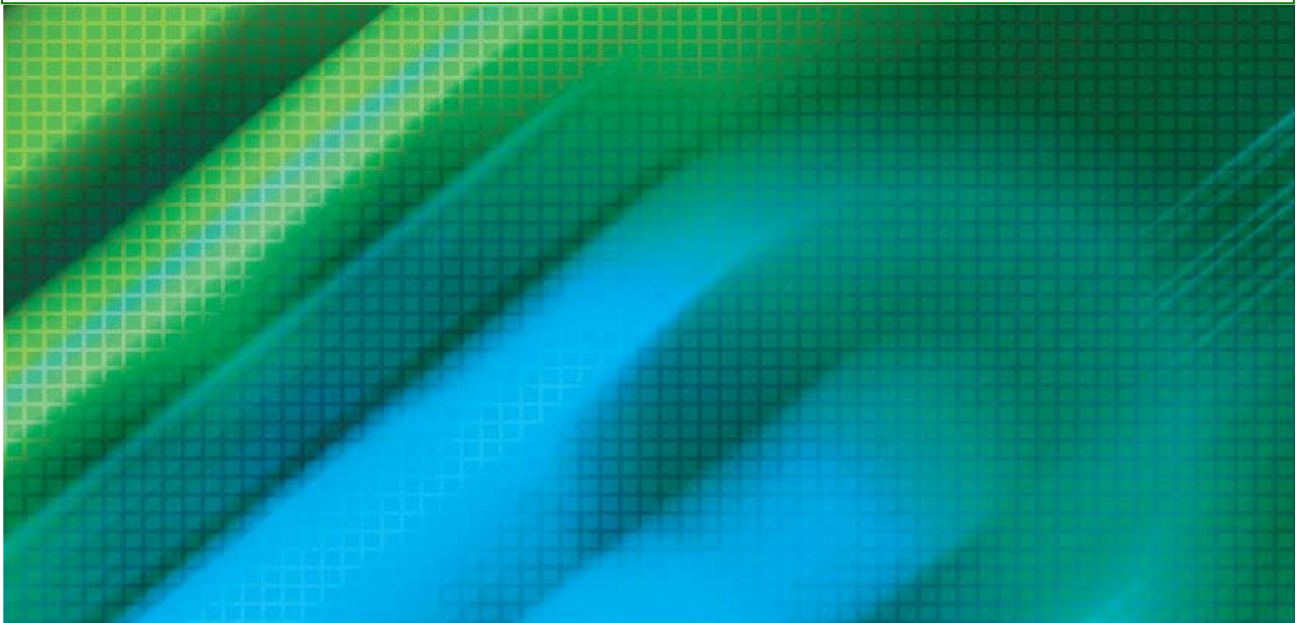




Response to ACCC Discussion Paper
National Broadband Network Points of Interconnect



everything in our power





Joshua Davies
Communications Group
Australian Competition and Consumer Commission

Ergon Energy thanks the ACCC for inviting responses to the discussion paper *National Broadband Network Points of Interconnect*.

Ergon Energy is responding to this discussion paper in the context of its role as an energy business (an electricity distributor, retailer and generator) servicing 680,000 customers in regional Queensland. Of particular interest to Ergon is the potential to leverage the NBN in relation to future requirements for development and implementation of intelligent networks (smart grids).

Ergon Energy's *Network Vision to 2030* acknowledges that electricity distribution companies will struggle to power a 21st century world using a network, technologies and management tools from the 20th century. We are pursuing strategies related to the development of an intelligent network: a network that increases the connectivity, automation and coordination between generators, transmission companies, distributors and customers, bringing the network into the 21st century.

Central to the development of intelligent network infrastructure is the need for communications to connect and integrate intelligent grid devices in a coherent fashion. Today, Ergon Energy utilises several communications methods for control of equipment, monitoring and personal communications. Ergon Energy is additionally challenged by the need to source communication technology suitable for regional areas to provide cost effective and reliable energy delivery to our customers.

To date, Ergon Energy has relied on a mix of services for its operational data communications needs, whilst advancing plans toward the implementation of an efficient, utility grade communications system. Ergon Energy is currently implementing a \$130M project (known as Ubinet Phase 1), an optical fibre and microwave network extending throughout our Queensland service area. This network will serve to connect our major substations and act as the backbone for future access networks extending to individual customer premises.

In pursuit of the development of a future intelligent electricity network reaching all customers, Ergon Energy has worked with NBN Co to explore options to utilise services to connect devices using NBN direct fibre or NBN Ethernet PON services. Our responses in this paper are framed toward the potential to progress this opportunity.

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Responses

Effect on Relevant Markets

Ergon Energy has no comment on Questions 1 - 6.

Location of POIs

7. *What is the preferred number and location of initial POIs and why? How would this be different in the short term and the long term?*

The principal driver for utilisation of NBN Co services by energy businesses is the provision of connectivity to customer premises for advanced metering infrastructure, and for non-premises connections to other intelligent network devices.

As Ergon Energy's electricity network is wholly based in regional Queensland, the interconnection of systems provisioned for network control is based within Ergon's service area; for example, Ergon Energy's network control centres are located in Townsville and Rockhampton.

For urban customer access, the potential exists to leverage the NBN access services to connect devices via NBN GPON services, potentially extending to electricity smart meter connections for residential customers. To enable use of the NBN for electricity network operations, the number and location of POIs is (ideally) interconnected with the utility communications at suitable access points.

A relatively small number of POIs (Option 3) will result in significant path lengths and an increase in traffic latency. As some electricity network operations are latency sensitive, this increase in latency could become an issue. In addition, the use of the Option 3 model would result in "tromboning" traffic to and from the state-centralised POI. For example, network operations traffic from Townsville to Cairns would take the path Townsville – Brisbane - Cairns under Option 3.

For these reasons, Ergon Energy therefore considers that NBN Co's Option 1 – No Consolidation would be the ideal solution. However, it is understood some industry players would prefer to have the option to access the NBN at an aggregated level. We therefore consider that Option 4 – Composite, would be acceptable with appropriate business rules in place to govern access arrangements.

8. *What are the strengths and weaknesses of NBN Co's preferred 'composite model' outlined in its Public Position Paper?*

From an energy business perspective, the strengths include:

- Minimal latency for inter-POI traffic, providing the ability to tailor overall network performance to meet business application requirements;
- Ability to incorporate redundancy through the provision of local fibre and backhaul networks to provide alternate paths between regional locations;
- Potential to lower energy business' demand for wireless communications spectrum for intelligent grid applications;
- Leveraging of infrastructure synergies (and hence, lowest total cost) between the energy and telecommunications industries.

Weaknesses:

- Lack of definition of business rules and commercial arrangements to provision access at distributed POIs.



- Difficulties in the alignment of deployment timeframes for NBN Co and energy business plans.

9. *Where a composite or low-medium consolidation approach is adopted for NBN Co's POI location, what factors should be taken into account in determining the location of the distributed POIs? For example, is the number of available backhaul routes relevant? If so, what should be the threshold?*

The key factor that should determine the location of distributed POIs should be whether a genuine business reason exists for the establishment of the POI in that location. Provided that not all access seekers are required to source backhaul from each POI, i.e. they have the option of connecting to the NBN at higher points of aggregation, then backhaul should not be a limiting variable.

10. *On what terms should NBN Co supply backhaul from the small number of centralised aggregation POIs to the decentralised disaggregated POIs if its 'composite model' is adopted?*

Ergon Energy has no comment on this question.

11. *If NBN Co supplies backhaul, should this be on a Layer 2 Ethernet basis or in the form of dark fibre (or both)?*

Ergon Energy's preference would be for NBN Co to supply ITU-T G.709 services.

Timing and business rules for interconnection under NBN CO's composite approach

12. *Under NBN Co's 'composite model', what "business rules" should govern when NBN Co will allow interconnection at the distributed POIs?*

For energy businesses, the need to manage risk in the deployment and management of an intelligent grid, including the application of distributed intelligence and dynamic demand management, will require access to the NBN at distributed POIs.

13. *Under NBN Co's 'composite model', what "business rules" should govern when NBN Co will allow interconnection at the distributed POIs? What should be the process to coordinate the addition of interconnection at the disaggregated POIs?*

NBN Co should establish a standardised request for interconnection process that determines the location of the required POI, provides a framework for access seekers to set out their case for interconnection against the business rules and provides a timeframe for assessment, outcome notification and connection to the required POI.

Changes to the initial POIs

14. *What factors should trigger a review of the location of NBN Co's initial POIs?*

Ergon Energy considers the list of POIs as proposed in Attachment A to be appropriate.



15. *What mechanisms should be used to effect a change to the location of NBN Co's POIs? (i.e. consultation requirements and notification periods)*

In circumstances where NBN Co wishes to move the physical locality of a POI and this does not affect the number of connected customers downstream of the POI, then NBN Co should be required to notify all access seekers of the proposed change and provide 3 months for submissions on the appropriate location.

Layer 1 Unbundling

Ergon Energy has no comment on this question.

Uniform National Wholesale Pricing (UNWP)

Ergon Energy has no comment on questions 17-20.

Wireless Services

21. *Should the same approach for the number and location of POIs for NBN Co's fibre services be adopted for wireless and satellite services? Why and/or why not?*

The same principles that apply to determining the number and location of POIs for NBN CO's fibre services should be adopted for wireless and satellite services.

Other

Ergon Energy has no comment on questions 22 and 23.