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Mr Sebastian Roberts
General Manager
Networks Regulation South
Australian Energy Regulator
GPO Box 520
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Dear Mr Roberts

GridX application for exemption from registering as a Network Service Provider

Thank you for the opportunity to respond to the AER's Issues Paper on the GridX Power Pty Ltd (GridX) application for Network Service Provider exemption. EnergyAustralia is firmly committed to innovation in electricity supply, and in this respect is generally supportive of the GridX proposal. However, EnergyAustralia does have some serious concerns that we believe require attention and these are outlined below.

Concerns with the GridX application

EnergyAustralia has serious concerns with the GridX application. Firstly, the application is very brief, to the point that key features of the application are not adequately enunciated to enable suitably informed comment.

This caused EnergyAustralia to look to the company website (www.gridxpower.com) for further information on the network approach. EnergyAustralia is most concerned that several of the key assertions in the GridX application to the AER are inconsistent with the information posted on the website, notably:

- The website information appears to allow the customer to "opt out" and be supplied by the retail supplier of their choice.[1] This implies that full retail contestability will be available, whereas it is not obvious that FRC will be available to customers served by the GridX system.

[1] GridX website FAQ: "What if I change my mind? We recognise your right to choose and are confident of the benefits GridX Power offers. However, should you, for any reason, wish to opt out, you would be reconnected with your chosen retail supplier. ...."

Partner

- The GridX website quite clearly states that customers will be able to rely on the surrounding electricity grid in the event of a failure of GridX systems.[2] This is inconsistent with the GridX application.

Notwithstanding the inconsistencies between the GridX application and website, EnergyAustralia has endeavoured to provide reasoned commentary. It should be noted, however, that EnergyAustralia remains uncomfortable with the level of information provided in the GridX application, and has had to make assumptions on the nature of the business model in order to formulate its comments.

The narrow GridX application

Within the narrow context of the application by GridX, we understand the features of the GridX island network to feature the following key characteristics:

- One way connection;
- No reliance on the surrounding network for capacity support to embedded customers;
- Reliance on the surrounding network, in normal conditions, for frequency control and voltage support.

Within the narrow context of this application, the proposal is clear that the surrounding distributor would have no obligations for serving or supplying embedded customers beyond the generator connection point, and perhaps more importantly, *could not be required* to undertake any responsibilities for serving customers in the GridX network.

In this narrow context, the GridX proposal is akin to a normal embedded generator. Within this narrow context, EnergyAustralia would be pleased to open a dialogue with GridX as envisioned by section 5.5 and schedule 5.2 of the National Electricity Rules. EnergyAustralia has also developed a Standard Generator Connection Agreement for embedded generators, which it would be pleased to provide in the context of that dialogue.

In general terms, EnergyAustralia welcomes this innovative approach to supplying customers' energy needs. It also adds a degree of discipline on network and retail businesses to ensure that the cost of supplying energy through traditional means remains competitive.

The broader regulatory context

However, the broader facts of the case are that the GridX proposal is not simply an embedded generation project, and this requires a broader perspective. In taking a broader regulatory perspective, EnergyAustralia has identified a number of additional issues that will need to be

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[2] GridX website FAQ – faults: "The overall incident of blackouts will be negligible when compared to the traditional electricity grid as each homeowner will have two sources of supply, one primarily served by the GridX System, *backed up by the mains electrical grid.*" and "Can the system fail? ... If one of the generation systems fails it does not mean that the entire system shuts down, the extra load can be supported by the remaining systems in the GridX Network *or indefinitely by the electrical grid...*" (emphasis added)

addressed in the context of the GridX proposal.[3] While some of these issues may not be directly under the AER's purview, EnergyAustralia encourages the AER to coordinate its analysis with its colleague regulators in finally resolving this application. This will inform the AER's analysis in determining whether an approval of the GridX application for DNSP exemption would promote the National Electricity Market objective.

The Essential Services Commission of Victoria appears to recognise this broader context as well, as evidenced by it undertaking its Review of the Exemption Framework for Small Scale Activities. EnergyAustralia submits that it is reasonable to take a broader view in the context of the GridX application.

It has been assumed in this submission that the GridX development would not require access to public streets, which would raise issues of public safety and liability, rather being equivalent to a community title development confined to private property.

Market operations issues

Depending on the size of the island network development and the number of turbines in the fleet, it is possible that the island network connection to the distribution network could be of a sufficient size to be a NEMMCO-dispatched generator. EnergyAustralia envisions parallels with the reliability of wind farm dispatch in terms of reliable availability and available capacity.

Retail pricing issues

The AER Issues Paper appears to place a significant amount of emphasis on the protection processes enabled through a retail licence granted by IPART. However, in contrast to the comments in the AER Issues Paper, the IPART website does not indicate an application for a retail licence had been received from GridX Power.

More importantly, it is not obvious that an island network would require a retail licence in NSW.

Releasing an island network from the obligation to provide open access means that its customers can not rely on competition to protect them from a misuse of monopoly power.[4] It will therefore be necessary for a regulator, presumably IPART in NSW, to develop a retail price cap to ensure that customers are at least not worse off through being supplied by the island network. In NSW, the mechanism for this is the Electricity Supply Act provisions surrounding embedded networks, such as caravan parks. This sets a maximum price for retail electricity supply to be that charged by the surrounding standard retailer.

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[3] As these broader issues are more generic to the concept of island networks, EnergyAustralia will refer to them simply as "island networks" rather than GridX networks.

[4] Although it is noteworthy that the FAQ section of the GridX Power website does include a reference to a customer being able to "opt out" and be reconnected to the customer's chosen supplier. It is not clear if this is intended to allow transfer to another retailer, or physical connection to the surrounding network.

However, it is entirely possible that the benchmark price charged by standard retailers may be phased out as retail competition becomes more prevalent in the marketplace. There will be a need for a benchmark against which the regulator can assess the reasonableness of the island network's delivered price of electricity.

It will be necessary to ensure that end use customers have some form of contact with the island supplier in the event of billing issues, etc. As the surrounding standard (host) retailer will not have a relationship with those customers, it will not be able to assist with calls to its customer contact centre. It will also be important to ensure that the surrounding retailer is not obliged, through the operation of any other legislative instrument to provide customer contact services to customers of the island network.

EnergyAustralia considers that it will be important for customers to be aware that retail contestability is not available to customers moving into an island network. In this regard EnergyAustralia considers that it would be reasonable for this fact to be flagged as a caveat on the deed of title for property purchases or on the rental agreements for rental properties.

This would serve to ensure that customers are aware that they may incur a penalty on their existing supply contract, as they would be unable to transfer the contract to a new premise within the island network.

EnergyAustralia believes the AER should give due consideration to how the consumer protection safeguards currently afforded to small retail customers of licensed retailers will apply to customers within the island network. Those of importance relate to charges and billing, disconnection and discontinuance of supply, and guarantee of customer service standards provided for under the provisions of the Electricity Supply Act 1995 and regulations made under the Act in NSW.

Customer protection issues would normally be dealt with through the retail license process. In this regard, EnergyAustralia notes that customers in the island network would not have access to the Retailer of Last Resort (ROLR) protection, as the island network would not have scope to allow a step-in retailer to continue supply to the island customers.

These consumer protection issues are particularly relevant, as it is unclear (in NSW) whether the island supplier would be required to have a retail license. Some of the consumer protection issues of concern include:

- A right to connect to the network;
- Rigorous processes in the event of disconnection for non-payment;
- Clear plans for vulnerable customers and those experiencing financial difficulties;
- Access to the state Energy Ombudsman scheme; and
- Guarantee of customer service standards.

EnergyAustralia also considers it important that customers have access to their meter data.[5] As the energy consumption of the island customers will not be settled through NEMMCO, there will be no MSATS data for these customers. Should an island customer choose to move to another location, it will be important to have access to meter data in order to allow the customer to enter into a contract with a competitive retailer without being disadvantaged by a lack of historical meter data.

Network design and safety issues

The same issue applies to network faults. As the owner of the surrounding network will not have information on the island network, it will not be able (and should not be required) to respond to emergency or fault conditions on the island network. It will be important for island customers to be fully aware of these issues, and ensure that the customers have the appropriate network rectification contacts and support.

EnergyAustralia presumes that the island network will be required to comply with all the relevant technical and safety requirements established by the technical regulator without EnergyAustralia being required to play the role of watchdog.

Network planning issues

The island network concept has far-reaching consequences for existing networks, particularly where the host distributor has an obligation to supply.

Energy network planning is a long horizon process, and it is entirely likely that augmentation planning and network development work could take place some years before a subdivision is constructed. If, at the time of construction, the developer decides to build the subdivision as an island network, there is scope for the host network to be in position of having invested in upstream network augmentation which may be underutilised. EnergyAustralia seeks assurance from the AER that prudent planning on the part of the network would not result in asset stranding as a result of these types of island networks.

EnergyAustralia is also concerned with the GridX assertion that its generation would assist in relieving network constraints. The existing networks are only constrained at times of peak demand. If the island customers' load profile is similar to the existing DNSP-supplied customers' (and there is no obvious reason to suggest otherwise), the island's export generation would be the lowest at the time that the network needs it the most, and greatest at the time the network needs it the least. This would not necessarily assist the existing network in deferring capital expenditure to overcome constraints.

It will be important for the regulatory framework to allow the host network to access easements to construct networks across the "island" in the event a further subdivision is constructed on the opposite side of the island network. It would be reasonable to expect that there will be additional costs of network investment to deal with a reduction in network 'meshing' because of these 'holes' being created by a proliferation of island networks. In this way, scale economies will be eroded.

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[5] EnergyAustralia presumes in this regard that customers will be individually metered.

From a network planning perspective, EnergyAustralia is concerned over the potential for fragmentation of the host network, which would undermine the principle economies of scale associated with network businesses.

Network pricing issues

EnergyAustralia takes some exception to the AER's comment that the island network connection point could be specified to allow for support from the surrounding network at low cost. It is inappropriate to suggest that the cost would be "low" without examining the particular requirements of such a backup supply connection. In the event of generator failure, the island network operator could require support in peak periods when the existing network is under stress. The appropriate level of charge for standby supply during these circumstances would need to fully recognise the capacity impact on the surrounding DNSP network and equivalent to the long run marginal cost of network supply - about 70-80% of the annual network charge for the DNSP's customers.

EnergyAustralia would like to take this opportunity to renew our commentary on avoided TUoS payments, and how this clumsy mechanism would not be required if generators and customers alike paid for transmission. Refer to EnergyAustralia's submission to the AEMC on the National Electricity Rules Chapter 6 review.

Technical standards

Safety and technical standards are the purview of the Jurisdictional regulator – in NSW this is the Department of Energy, Utilities and Sustainability (DEUS). An island network will raise unique issues of supply quality, particularly if the system were permitted to operate in an islanded configuration, in the event of failure of the DNSP connection. The DNSP is not responsible for the quality of supply to GridX customers.

There is insufficient information in the GridX application for parties to understand the nature of technical regulation that will apply to the island network, or any exemptions that may be applicable if the island network is considered to operate as an embedded network, similar to a caravan park. In this respect, the island network operator would not be required to obtain an electricity distributor's licence. This raises questions on the technical and safety regulations that would be applicable to the island network.

Reliability of supply to GridX customers

The island network proposal is founded on the basis of an electrical connection used for the purpose of exporting power to the grid and not as a standby supply to embedded customers. The energy source to the subdivision is natural gas delivered by the local gas distributor.

It must be recognised that electrical supplies are increasingly regarded an essential service, whereas in Australia gas supplies are not. This has led to fundamental design differences in the networks. In urban areas, electricity networks are generally duplicated at all voltage levels (albeit with manual switching at lower voltage levels to alter the position of open points to transfer load under emergency conditions). Gas networks are only duplicated at transmission levels and are radial in configuration at the distribution level. As a consequence, the current island network

proposal is likely to deliver an inferior standard of electrical supply reliability to embedded customers, eg. in the case of dig-in to a gas main.

In this regard customers in such networks will face compounded risks to the security of supply of electricity that are not faced by other customers. To assess the probability of loss of supply, and therefore the required contingency arrangements, not only must the integrity and reliability of the electricity network and the available generators be considered, but also the probability of failure for the generators to receive adequate fuel. It is this fuel source reliability that places these customers at the greatest disadvantage to other network customers as there is a fuel mix for generators in the NEM that mitigates the chances of a catastrophic fuel supply failure. The island network proposal is wholly dependant upon the constant supply of gas for its (both gas and electricity) customers, and without an alternative fuel supply, the gas supply risk cannot be mitigated by any network configuration contingencies within the island.

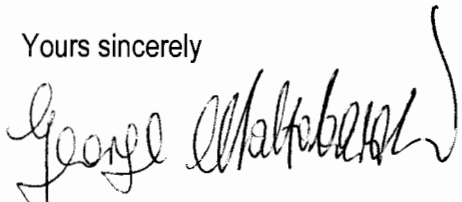
EnergyAustralia's concerns are greatest where there may be customers with life support equipment. This will be an issue where the development concept targets retirement communities.

Additional concerns over security of electricity supply arise if gas supply is terminated due to an inability on the part of the island network operator to pay for gas supply. This will be an issue for prudential requirements, which may or may not be addressed through the retail license process.

In this context, EnergyAustralia notes the gap in the MCE emergency protocol to recognise that there will be a time in which a gas emergency becomes an electricity emergency. This case is a microcosm of that very issue, although compounded by the risk of cessation of gas supply due to the financial failure of the scheme proponent. This places additional focus on the prudential requirements applicable to the proponent of such a scheme.

In summary, EnergyAustralia strongly recommends that the AER defer a decision on the current GridX application until it is satisfied that the issues raised can be appropriately resolved, and that from a holistic perspective, an exemption would promote the National Electricity Market objective. Should you require further information on this matter, please contact our Mr Harry Colebourn on (02) 9269 4171 in the first instance.

Yours sincerely



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