

Draft Decision

Energex application for waiver from Queensland Ring Fencing Guidelines

## Solar PV and BESS trial project

July 2016

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Inquiries about this publication should be addressed to:

Australian Energy Regulator
GPO Box 520
Melbourne Vic 3001

Tel: (03) 9290 1444
Fax: (03) 9290 1457

Email: AERInquiry@aer.gov.au
AER Reference: D16/86168

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# Shortened forms

|  |  |
| --- | --- |
| Shortened form | Extended form |
| AEMC | Australian Energy Market Commission |
| AER | Australian Energy Regulator |
| DNSP | Distribution Network Service Provider |
| Energex | Energex Limited |
| NEL | National Electricity Law |
| NEM | National Electricity Market |
| NER | National Electricity Rules |
| QCA | Queensland Competition Authority |
| Guidelines | Electricity Distribution: Ring Fencing Guidelines, September 2000[[1]](#footnote-1) |

# Request for submissions

This document sets out the Australian Energy Regulator’s (AER) draft decision on an application from Energex Limited (Energex) for a waiver from the Queensland Electricity Distribution Ring–Fencing Guidelines (the Guidelines).[[2]](#footnote-2)

Energex’s waiver application relates to a requirement under section 1(b) of the Guidelines specifying that Energex may not carry on a business related to its role as an electricity Distribution Network Service Provider (DNSP).

Copies of Energex’s waiver application are available on the AER’s website [www.aer.gov.au](https://www.aer.gov.au/).

We invite submissions from interested parties on Energex's waiver application and this draft decision.

Submissions should be emailed to AERInquiry@aer.gov.au before 5pm on Tuesday 2 August 2016. Enquiries may be emailed to the same AER email address. Submissions may also be mailed to:

Mr Chris Pattas,

General Manager Networks

Australian Energy Regulator

GPO Box 520

Melbourne Vic 3001

We prefer all submissions be publicly available to facilitate an informed and transparent consultative process. Submissions will be treated as public documents unless otherwise requested. Parties wishing to submit confidential information are requested to:

* clearly identify the information that is the subject of the confidentiality claim
* provide a non–confidential version of the submission.

All non-confidential submissions will be placed on the AER website.

# Summary

On 20 May 2016, Energex submitted an application for a waiver from the Queensland ring fencing guidelines in respect of its Battery Energy Storage System (BESS) project incorporating solar photovoltaic (PV) generation and batteries.[[3]](#footnote-3) Section 1(b) of the Guidelines prevents a distribution network service provider (DNSP), such as Energex, from carrying on a "related business" within its legal entity. A "related business" is defined by the Guidelines as a business of producing, purchasing or selling electricity.

After receiving Energex’s application, we posted it on our website and called for submissions from stakeholders via a notice in The Australian and an email notification. We received one submission in response to this application.

Energex intends to install 150kW of solar PV capacity at its Eagle Farm Distribution Centre to be used in conjunction with its commercial BESS trial. The trial project includes a 250kW Tesla battery. Energex described its BESS project as providing reduced operating costs, positive environmental benefits and benefits through research and development learnings that will come from the BESS project’s solar PV generation and batteries. Energex indicated electricity exports to the grid from its facility would be minimal as most electricity generated by the project's PV units would be used on site.

The solar PV system installation and BESS project falls within the definition of a "related business" in the Guidelines because it involves electricity generation and supply to the network, i.e. producing electricity. The waiver, if granted, would allow Energex to operate the project as a related activity.

We may grant a waiver from the Guidelines’ obligations if we consider the DNSP’s costs of complying with those obligations, in respect of undertaking a “related business”, would outweigh the public benefit.

The purpose of the current Guidelines is to prevent DNSPs from vertically integrating to provide electricity generation and retailing activities. The Guidelines do not account for the broader scope of considerations reflected in the AEMC’s recent work on energy storage, including market development issues.[[4]](#footnote-4) However, we are taking these issues into account in developing new national ring fencing guidelines, due by December 2016.[[5]](#footnote-5)

We received one submission in response to Energex’s waiver application for its solar PV and BESS project. Origin Energy opposed granting waivers, submitting that the waiver applications should be considered under the new national ring fencing guidelines. While we have noted the position advanced by Origin Energy, we are required to assess ring fencing waiver applications on the basis of existing regulatory arrangements and cannot defer consideration until the new ring-fencing guidelines are made. We therefore consider the objections are not well founded in respect of the Queensland Ring Fencing Guidelines.

Energex submitted that it will not sell electricity injected by its BESS project into the network so will not receive an immediate financial benefit. As such, it will not profit from the solar electricity generated. Electricity will be used onsite to reduce operating costs and any net export that occurs (expected to be minimal) would benefit customers through reduced line losses. Energex's waiver application is premised on the project not equating to the "business" of generating/supplying electricity. We note, however, that there is an opportunity for Energex to sell electricity, particularly with the combination of PV and batteries used in the project. Therefore we consider it appropriate for Energex to submit a ring fencing waiver application for our assessment.

Having considered the material submitted by Energex, our draft decision is to grant a temporary and conditional waiver from section 1(b) of the Guidelines. The waiver is limited to the solar PV system installation and commercial BESS project described in Energex's waiver application. The waiver is conditional on Energex not selling electricity injected into the network. The waiver will remain in place until 12 months after we release new national ring fencing guidelines, due before December 2016. Alternatively, new national ring fencing guidelines may specify an approach to pre–existing waivers such as this.

The new national guidelines will supersede existing jurisdictional ring fencing guidelines currently administered by the AER. In respect of this BESS project, Energex will be required to comply with the new guidelines within 12 months after being established, or otherwise comply with transitional arrangements for existing waivers as set out by the new guidelines.

# Queensland Ring Fencing Guidelines

The Queensland Competition Authority (QCA) published its Ring Fencing Guidelines in September 2000. The objective was to underpin an environment where the price, quantity and quality of electricity traded in the retail, generation and distribution markets was not biased due to vertical integration of distribution and other businesses.[[6]](#footnote-6) The Guidelines recognised the potential need for ring fencing waivers in certain circumstances to capture activities where the cost imposed by complying with the ring fencing obligations could outweigh the likely benefit to the public.

On 1 July 2010, the AER assumed responsibility for administering the Guidelines. Under clause 11.14.5(b)(3) of the NER, guidelines in force for a participating jurisdiction immediately before the AER’s assumption of regulatory responsibility (transitional guidelines) continue to be in force for that jurisdiction subject to amendment, revocation or replacement by the AER. The AER has not made any amendment, revocation or replacement in respect of the (Queensland) Guidelines to date.

## Procedure for waiving ring fencing obligations

Section 1 of the Guidelines sets out the minimum ring fencing obligations imposed on the Queensland DNSPs. A DNSP has the right to seek a waiver from these obligations under section 21 of the Guidelines:

“The QCA may, by notice to a DNSP, waive any of a DNSP’s obligations under section 1 provided that the QCA is satisfied that the DNSP can demonstrate that the administrative cost to the DNSP and its Associates of complying with the obligation outweighs the benefit, or any likely benefit, to the public.”

Where a DNSP applies for a waiver of its ring fencing obligations, the AER must follow the procedure set out in sections 22 to 30 of the Guidelines in assessing the application.

On 31 May 2016, we published a notice in The Australian newspaper to seek comment on Energex's waiver application. We also published the waiver application on the AER website and issued an email alert to AER subscribers.

# Energex’s waiver application

The waiver sought by Energex is in regard to section 1(b) of the Guidelines, which states:

"A Distribution Network Service Provider (DNSP) that provides prescribed distribution services in Queensland must not carry on a related business within that legal entity"

A "related business" is defined in section 30 of the Guidelines as a business of producing, purchasing or selling electricity.

Section 21 allows the AER to waive the Guidelines' obligations if we consider the administrative costs of compliance will outweigh the public benefit. Section 22 of the Guidelines allows DNSPs to seek a notice from the AER to be issued under section 21.

## **150 kW solar PV system & BESS project**

Energex’s waiver application described the expected benefits of the solar PV installation and BESS project at its Eagle Farm Distribution Centre. In particular, it undertook financial analysis as part of an investigation into the use of solar PV as an alternative energy source to reduce operating costs at the facility and found the installation to have positive net present value for the base case. Energex expects to see savings in operating expenditure which are in the long term interests of customers. That is, the cost efficiencies from this investment will be passed through to customers via reduced network costs.

Through the BESS trial project, Energex intends to gain a better understanding of how the installation of batteries used in conjunction with solar PV will impact its future network load profile and power quality. This project is expected to coincide with an increase in commercial customers applying for connection of large-scale BESS systems, for which Energex has already received tentative requests. Energex indicated that, while the pilot project is primarily to understand network operational issues, it may also provide insight for future capital investment and tariff reform decisions. Energex emphasised the importance of a viable electricity network in connecting consumers to new technologies and facilitating the provision of new energy services, which will best serve the long term interests of consumers.

Energex explained that the BESS trial at the Eagle Farm Distribution Centre will simulate the installation and operation of batteries in conjunction with solar PV at a commercial premise. It currently has a domestic BESS pilot project in operation at its Rocklea training facility. The proposed commercial BESS project will include installation of a Tesla battery (total storage of 250kW). Energex submitted that large scale commercial solar PV in conjunction with BESS represents a different challenge to network businesses in terms of load profile, visibility on the network and system wide coordination. Throughout the trial, Energex will gain an understanding of:

* commercial installations
* the network impacts
* options for network support
* the interplay between customer driven operation and provision of network support.

Energex noted that, throughout the BESS trial, it will investigate any opportunities for maximising benefits to reduce the cost to serve and improve network performance.

In addition, Energex submitted that environmental benefits would accrue from the solar PV installation. By reducing the facility’s greenhouse gas emissions and dependence on traditional energy sources derived from fossil fuel, Energex will reduce its carbon footprint and contribute to climate change mitigation.

Energex has proposed to fund the solar PV installation through the non-system capital expenditure allowance approved as part of the 2015-20 regulatory proposal. Energy Impact Ltd, a separate legal entity, will fund, own and operate the BESS under a service level agreement (SLA) established between Energex and Energy Impact. The SLA relates to the BESS’ ownership and maintenance and access to data. Energex has proposed to fund the costs under the SLA from resources in its Demand Management Innovation Allowance. [[7]](#footnote-7)

Energex expects the amount of electricity exported into TradeCoast’s network to be minimal, estimating excess solar PV generation to be approximately 5MWh based on the 150kW generation size of the solar PV system. This electricity sent into the network will not be sold but rather will be counted as a reduction in line losses and so Energex will not receive a financial benefit. Energex noted that the amount of export can be limited or controlled where required with the Tesla battery storage capability.

## A related business

Energex submitted:[[8]](#footnote-8)

While the solar PV installation involves the generation of electricity from the solar PV panels, Energex does not consider this constitutes carrying on a related business. This is because Energex is not in the business of producing electricity as there is no intention to make a profit. Energex is only producing electricity for the purposes of using the electricity onsite to reduce operating costs.

## Costs of compliance with ring fencing obligations

For a ring fencing waiver to be granted, Energex must demonstrate that the administrative cost of complying with the ring fencing obligation outweighs the benefit, or any likely benefit, to the public. Energex submitted an estimate of its expected costs of ring fencing the Eagle Farm project with its waiver application. Energex has claimed commercial confidentiality over its cost estimates so we have not set them out here.

While the cost estimates submitted by Energex are not significant in comparison with Energex's revenues, they will ultimately be borne by Energex's customers as part of Energex’s standard control services through increases in network charges. Against these costs we must assess the potential benefit of requiring Energex to establish a separate legal entity to undertake the solar PV system installation and commercial BESS project. Our assessment of these costs and benefits must be in light of the Guideline's focus on a related business of producing electricity.

We have taken Energex’s proposed costs into account in considering Energex’s waiver application.

## Reasons for seeking a waiver

Energex submitted:[[9]](#footnote-9)

Energex considers the administrative costs of complying with section 1(b) outweighs the benefit or likely benefit to the public given that this project reduces Energex’s operating costs and facilitates network learnings for the integration of new technology with the existing network assets.

…

Energex does not consider that the establishment and operation of this solar PV installation:

has any impact on the national electricity market given the negligible capacity of the solar PV installation;

constitutes entering the generation or retail markets; and

interferes in any way with Energex's legislative requirements.

# Our assessment

As set out above, we may waive a ring fencing requirement if we are satisfied the administrative cost to the DNSP in complying with the ring fencing obligations outweighs the benefit, or any likely benefit, to the public.

## Submissions

We received one submission on Energex’s waiver application.[[10]](#footnote-10)

Origin Energy submitted:[[11]](#footnote-11)

We believe the solar PV application is sufficiently contentious. The application provides inadequate explanation of the cost recovery models, how external energy discharge is treated and it lacks transparency regarding the information sharing arrangements that form the SLA. Furthermore the application relates to long-lived assets so there appears no urgency to have the application assessed immediately.

As such, Origin submitted that the AER should defer consideration of the Eagle Farm trial waiver request so it may be considered under new national ring fencing guidelines.

We note that similar concerns were raised in relation to the Energex ring fencing waiver application approved in March 2016.

## Our considerations

We accept that Energex’s commercial BESS project and solar PV installation is to be undertaken for the purposes of reducing operating costs at the Eagle Farm Distribution Centre where the solar PV system will be installed, delivering environmental benefits and contributing to research and development learnings. Further, that the project will give Energex an understanding of the network impacts of commercial solar PV installations.

The solar PV system and BESS project will not be undertaken for business purposes, in that Energex will not sell any electricity injected into the network. While the Guidelines do not define what a "business" is, as a general principle we accept that a business activity is normally undertaken to achieve a positive financial return. Nevertheless, the Guidelines could be interpreted such that Energex would be captured by the ring fencing requirements. For this reason we consider it is appropriate that Energex seek a waiver for the project.

Energex has proposed to fund the solar PV system through its non-system capex allowance and the BESS through its DMIA resources. We do not see anything to prevent this. Energex will be required to submit to us a DMIA report summarising outcomes from the BESS project. We encourage Energex to share further details with the broader energy sector through industry conferences and the like. The project's results should provide insight to stakeholders of the impact batteries can have on networks, including how networks and commercial batteries will interact.

We consider that the Guidelines do not contemplate competitive neutrality and broader market contestability issues that have been raised by stakeholders in previous ring fencing waiver applications. As explained by the QCA in its final decision on the existing Guidelines:[[12]](#footnote-12)

…the Authority’s objective for the Guidelines is to assist in creating an environment where the price, quantity and quality of electricity traded in the retail market, and the price, quantity and quality of distribution services used to deliver the energy, are not uneconomically biased by the vertical integration of distribution and other businesses…

We recognise that the potential provision of services from batteries will be subject to further consideration as part of the development of our ring fencing guidelines and will also be informed by any further policy direction from the COAG Energy Council and the Australian Energy Market Commission (AEMC).[[13]](#footnote-13) We hold the view that contestable services should be provided in competitive markets. Networks should not be able to leverage off their monopoly business activities to gain an advantage in competitive markets. These issues will be a focus of our consultation in developing new national guidelines.

As required by the current Guidelines, for Energex's waiver application we have considered the likely benefit to the public of enforcing the current ring fencing provisions against Energex's submitted cost estimates. To the extent that Energex's solar installation and BESS project could be considered to be a related business as defined by the Guidelines, we consider it unlikely that there will be material benefits to consumers from requiring Energex to undertake ring fencing in this instance. So even though the administrative costs of Energex ring fencing the project would be relatively minor compared to Energex's total revenues, they outweigh any potential benefit.

## Our draft decision

For the above reasons we consider granting a temporary and conditional waiver is appropriate. Our draft decision is to grant a temporary waiver from section 1(b) of the Guidelines, conditional on Energex not selling electricity injected into the network by the commercial BESS project.

Energex will be required to comply with national ring fencing guidelines within 12 months of them being established, or otherwise comply with arrangements for existing ring fencing waivers as set out by the new guidelines.

1. By Queensland Competition Authority. [↑](#footnote-ref-1)
2. Queensland Competition Authority, Electricity Distribution Ring–Fencing Guidelines, September 2000. [↑](#footnote-ref-2)
3. Energex, Energex application for a ring fencing waiver under the electricity distribution ring fencing guidelines, May 2016. [↑](#footnote-ref-3)
4. AEMC, *Final report — Integration of Storage: Regulatory Implications,* December 2015. [↑](#footnote-ref-4)
5. AER, *Ring-Fencing Guideline – Preliminary Positions Paper*, April 2016. [↑](#footnote-ref-5)
6. Queensland Competition Authority, Final Determination: Electricity Distribution: Ring fencing Guidelines, September 2000, p.8. [↑](#footnote-ref-6)
7. Energex, Energex application for a ring fencing waiver under the electricity distribution ring fencing guidelines, May 2016, p.2. [↑](#footnote-ref-7)
8. Energex, Energex application for a ring fencing waiver under the electricity distribution ring fencing guidelines, May 2016, p.3. [↑](#footnote-ref-8)
9. Energex, Energex application for a ring fencing waiver under the electricity distribution ring fencing guidelines, May 2016, p.3. [↑](#footnote-ref-9)
10. Submissions are available to view on the [AER website](https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/ring-fencing-waivers) (www.aer.gov.au). [↑](#footnote-ref-10)
11. Origin Energy, *Re. Submission to Energex application for a ring fencing waiver*, June 2016, p. 3. [↑](#footnote-ref-11)
12. QCA, *Final determinations—Electricity distribution: ring fencing guidelines,* September 2000, p.2. [↑](#footnote-ref-12)
13. AER, *Ring-Fencing Guideline – Preliminary Positions Paper*, April 2016. [↑](#footnote-ref-13)