

AER: Issues Paper

Regulating innovative
energy selling
business models
under the NER Law

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About Flow

Flow is an independent utility providing drinking water, refined water and wastewater services to greenfield and urban infill communities. Our offering has recently extended to include energy, making us a multi-utility business.

Flow is majority owned by Brookfield Infrastructure, global owners and operators of high quality infrastructure assets. Flow collaborates with other Brookfield companies, such as Brookfield Energy Australia (BEA). BEA provides co-generation and other innovative energy solutions to a range of industrial and commercial clients.

Flow's submission to the AER is also on behalf of BEA.

Introduction

Flow supports the intention of the AER Issues paper – to continue to regulate the sale of energy, including storage, in a flexible way, that stimulates innovation, protects customers and avoids the creation of barriers to entry.

With the fast changing nature of the Australian energy market, this approach will assist market productivity, if the administrative burden can be balanced.

Importantly, regulation needs to support a framework for new energy product development. Products such as microgrids will be an important consideration in an emerging market.

Protecting the integrity of emerging business models will also be paramount and can be achieved through the AER's approach to regulating according to the scale and scope of operations. This will ensure proponents have institutional substance appropriate to the energy services offered, without imposing unnecessary barriers to market.

To reflect the universal obligations of delivering an essential service, Flow supports new energy services complying with customer management obligations, including disconnection rules.

What are stakeholders' views on the AER's proposed options? Are there other options to which the AER should have regard?

Flow's view is that it is essential the regulator recognise the context of new market models. Emergent models will be based on urban development contexts, energy user type, and specific energy services, such as EVs.

The energy infrastructure for different urban forms is critical to the long-term development of energy business models.

Flow and Brookfield are committed to market models that rely on precinct style developments - new residential or mixed-use developments in two different urban contexts:

- a. high density urban infill which involve multi-dwelling and mixed use - commercial and retail
- b. land and housing developments which entail low rise single dwelling housing and less concentrated mixed use.

These different urban forms influence the long-term energy business models in different ways. Each implies different scopes for battery storage, local renewable energy generation, EV's and local grid management. These differences need to be acknowledged by the regulator.

Microgrids

The above models can be categorised as Microgrids (MG). MGs are strong participants in the emerging global energy market. Despite not yet impacting on the NEM, it's anticipated they will have a significant role in the future.

Since 2011, there has been a rapid growth of MGs globally. It's estimated MG market will grow at a compound annual growth rate (CAGR) of 17 per cent from 2012- 2022 to achieve a total installed capacity of 15 GW by 2022.¹

Customers of local grids experience benefits such reliability, diversification of energy sources, cost reduction, carbon emission reduction and increase demand response².

Microgrids can be defined as:

'a group of interconnected loads and distributed energy resources within clearly defined electrical boundaries that acts as a single controllable entity with respect to the grid. A MG can connect and disconnect from the grid to enable it to operate in both grid- connected or island-mode'.

Microgrids are combining renewable energy, particularly rooftop solar PV units, local storage, and local cogeneration. Distributed generation has increased by 5.9 TWh through 2012-13 NEM³.

¹ Smart Grid Australia 2013.

² MG Institute 2014

³ Saddler 2014

NEM: Adapting to change

Existing NEM infrastructure is unable to adapt to the many changes anticipated as a result of new technologies and new market models – in particular Microgrids. Structural change in the NEM is necessary to ensure reliable, secure supply at an efficient price.

While many of the critical regulatory changes required for effective MG operation revolve around Network Rules, retail legislation needs to also reflect this change.

For example: *Microgrids are likely to include a diversity of network resources, they may:*

- *Sell services back to the macrogrid such as “ancillary” services such as frequency control support.*
- *Need to cater for situations where they are either partially connected to the grid or off-grid.*
- *One microgrid may include distributed generation, storage, and demand response.*

Importantly, microgrids may not fit with the AER’s proposed Option 1 or 2 (individual exemptions) without modification. Full Authorisation could be the most appropriate, but some changes may be required to allow for Microgrid operation.

Option 2 with robust conditions may not be ideal either because:

- Exemptions are site specific, with a requirement to apply for an exemption for each individual

project, or may even require multiple exemptions for a single project.

- The conditions imposed are at the AER’s discretion, which makes it difficult to create and confidently invest in new business models.
- Exemptions were only really intended to apply where the supply of energy is not the core business or where it is not the main source of energy supply - as is the case with Solar Power Purchase Agreements (SPPAs). This is not consistent with the business models that Flow and BEA are contemplating.

A Third Option

Flow suggests an additional option - a hybrid of Option 1 and 2:

- Based on the core principles of retail market operators. Most of the responsibilities of retailers are required in both Option 1 and 2 and these core principles should remain the basis for managing customer interfaces.
- Customised to a particular business model and company, rather than to a particular site and so is transferable from site to site.
- Provide for a standard set of conditions that are known in advance.

This approach has been suggested by respondents to the original review in the form of a new Class exemption and may be a successful response to the emergence of Microgrids. It would be expected that Microgrid operators may be subject to the full retail authorisation and that the class exemption would simply articulate specific requirements for a Microgrid operator.

Recommendation 1:

Retail market rules should be developed with regard to the emergence of microgrids. While Microgrid operators will eventually require retail authorisation, the nature of this authorisation may need to be adapted to cater for emergent models.

Recommendation 2:

To protect commerciality of business models, the AER should consult directly with a variety of Microgrid market entrants to develop market rules, which could then be broadly applied.

Recommendation 3:

Discussions regarding regulation of microgrids be contemplated in an integrated manner with AER network rule changes to ensure uniformity and practicality of over-arching regulatory approach.

What difference, if any, should storage and/or other emerging technologies have on how the AER proposes to regulate SPPA and other alternative energy selling models?

As mentioned above, Flow does not believe individual technologies should generally drive regulation. It is the context within which these technologies are used that should drive the regulatory approach.

In relation to Option 2 (exemption, rather than authorisation), what, if any, conditions should be placed on an individual exemption for an alternative energy seller?

Conditions should relate to:

1. Assessment of the financial adequacy of a party to undertake the scope of a particular business model.
2. The technical capability of a party to undertake the scope of a particular business model.

Conclusion

Flow welcomes the AER's efforts to reflect the evolution and technological advances in the energy market, which are driving new business opportunities. Flow, with the backing of Brookfield, will be pursuing new business models within its precinct developments across Australia. The adoption of a third option for consideration will ensure innovation is encouraged, while providing the appropriate levels of regulatory certainty.



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