flow systems

AEMC: Local Generation Rule Change

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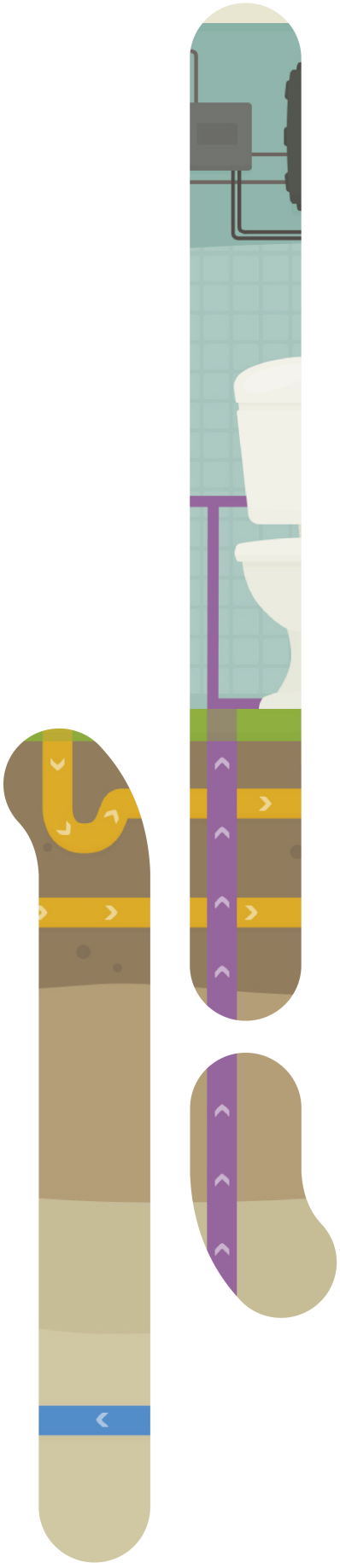

Brookfield

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Executive summary

Flow Systems, a Brookfield company, is a multi-utility company specializing in the design, operation, management and retailing of local sustainable water and energy infrastructure. Flow welcomes the opportunity to comment on the rule change proposed by City of Sydney, the Total Environment Centre (TEC) and the Property Council of Australia.

The change, to alter the payment arrangements for embedded generators in the National Electricity Market (NEM), is critical to enabling innovation and competition in the energy market – driving down costs to consumers, government and developers.

It is also essential in enabling the next generation non-coal reliant energy infrastructure which can deliver greater efficiencies. Industry and cities see the benefits of harnessing renewable energy sources and low carbon solutions through self generation as this substantially reduces energy bills and carbon emissions while driving greater resilience.

The current NEM rules are restricting commercial viability and global best practice technologies and innovation. The rules need to be enhanced to promote cogeneration and trigeneration and battery generation all of which improve load factors for the NEM.

For Flow/Brookfield, valuing the contribution of these technologies to the NEM is essential to the commercial viability. As a leader in next generation water and energy utility infrastructure and consumer products, we therefore support this rule change.

Enabling a diverse NEM

Flow/ Brookfield believe that to incentivise the right size grid and get the balance right for consumers and generators – it is essential the value of local generation be recognised and participation encouraged.

It is widely accepted in Australia, by industry and the Australian Energy Market Operator (AEMO), that local generation has the potential to reduce peak demand. There is also precedent for such an approach with regard to the UK Office of Gas and Electricity Markets (Ofgem) which requires each distribution network to publish, as part of its annual schedule of distribution tariffs, a credit tariff payable to 'decentralised generators'.

The change also delivers on stated objectives of achieving cost-reflectivity in network pricing through a price signal for exported energy where and to the extent that the exported energy serves to defer or avoid augmentation, reduce the cost of replacement assets, or reduce load at risk. It will enable local generators who export energy to monetise the benefits they collectively provide to the grid.

Importantly this should put downward pressure on prices and provide benefits to consumers over the long term, by incentivising investment in lower cost alternatives to the long run marginal cost (LRMC) of the network.

Requiring these credits through the proposed rule change would be transformative to the market - making the grid stronger and more resilient for everyone's benefit.

A case for change

Flow / Brookfield seeks investment in long-term and reliable low carbon decentralised energy systems. Many of our projects are in areas of intense urban densification and we have invested in studies that demonstrate the enormous financial and environmental benefits that can be created through a combination of local generation and local aggregation of solar assets. This rule change will assist in incentivising greater take up of non-coal reliant technologies, assisting the industry in transitioning to new more environmentally and economically efficient technologies.

We also invest in edge-of-grid projects. These projects will increasingly rely on decentralised generation such as PV combined with microgrids and storage/generation. In these cases, developers often face contributions to network augmentation at a 11KV level at minimum. Here, there is a clearer case for credits for decentralised generators. Generator credits will enable more such projects to be viable while remaining connected to the grid. In many cases, unless proportional payments can be determined, these communities may start to go off-grid.

Flow/ Brookfield has a pipeline of these types of projects and therefore we support any NEM measures that are more cost reflective and which clearly reflect locational benefits and initiatives.

CASE STUDY:
Network tariff issues remain a key consideration in the full utilisation of trigeneration facilities at Central Park. Extending the benefits of Australia's largest state-of-the-art facility to surrounding buildings and precincts remains challenging as a result of existing network tariffs. The economic case would be enhanced with this Rule change. The change would enable optimal utilisation and the extension of renewable energy to neighbouring building owners and businesses including UTS and TAFE. Brookfield/Flow are part of a CRC Low Carbon Living Research Project - Empowering Broadway which is examining the economic case, and the Smart Locale initiative in Broadway/Ultimo which is seeking to access renewable energy supplies to reduce the carbon impact of the precinct and provide building owners and members with non-coal reliant energy.

The future of the grid

Our vision is for a future grid with many decentralised generators, distributed microgrids, virtual power-plants and prosumers. Participants of this grid will need appropriate incentivisation to export at optimal times to support the grid's voltage, frequency and load.

The market is growing rapidly for smaller-scale individual decentralised systems which when aggregated, represent a major participant in the grid. It is essential a fair and functional system of recognition/ credits is established for this large and important market. This will avoid unforeseen failings and create a more robust network.

The proposed rule change is essential in supporting a more structured transition from the current NEM to one that incentivises a mix of centralised and decentralised behind the meter and in front of the meter generation.

While the establishment of Local Generation Network Credits (LGNCs) will require further consultation, the process of calculating the value of a LGNC will, at the minimum, give the market a mechanism for enhancing integrated network planning. The more transparency that is created in the network planning process the better.

Importantly, given that distributors operate under regulated returns, a mechanism such as LGNC can also potentially be seen as a way for government to allow for a regulated mechanism for cost recovery by distributors that simultaneously incentivise measured change. This would create a win for all parties.

Community benefits

The benefits to consumers can also extend beyond lower prices. Flow's customers can benefit from greater control and choice. Community ownership models are also under consideration in Flow communities with the aim of passing on potential revenues to customer shareholders in the form of dividends. The principal behind these models is that the savings achieved by avoiding augmentation is passed on to customers.

Conclusion

Given the significant innovation in energy policy, this rule change will incentivise innovation, sustainability, network resilience and ultimately lower costs for customers through promoting, rather than penalising the establishment of decentralised generation.

Decentralised generation is the future. It is essential in enabling the transition to 21st century innovation and the shift away from coal-fired power generation. Therefore valuing the contribution of these technologies to the NEM is essential and is supported by Flow/ Brookfield.

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