Clean Energy Council submission to the Australian Energy Market Commission's Issues Paper:

Review of the Regulatory Frameworks for Stand-Alone Power Systems

Executive Summary

The Clean Energy Council (CEC) welcomes the opportunity to provide feedback on the Issues Paper on the regulatory frameworks for stand-alone power systems (SAPS).

The CEC is the peak body for the clean energy industry in Australia. We represent and work with hundreds of leading businesses operating in solar, wind, hydro, bioenergy, marine and geothermal energy, energy storage and energy efficiency along with more than 5,600 solar installers. We are committed to accelerating the transformation of Australia's energy system to one that is smarter and cleaner.

The CEC supports the proposal to enable the use of SAPS as part of the regulated distribution service - provided there are adequate service supply conditions and customer protections.

The service supply conditions should require the network service provider (NSP) to procure through an open and transparent competitive tendering process subject to ring-fencing requirements.

Customer protections should ensure safe and reliable electricity supply irrespective of the energy supply model and should include:

- Enforceable standards for reliability,
- Universal access to dispute resolution processes,
- Consideration of price controls where customers may have difficulty accessing competitive offers, and
- Ideally, a nationally-uniform electrical safety regime.

Continuing to prevent NSPs from providing electricity to customers from microgrid or off-grid supply as a distribution service would deny customers the benefits of services that are more cost-effective services, safer and more reliable. In many cases it will be cheaper to provide off-grid supply than to maintain and replace long power lines linking remote customers to the national grid. Moving to off-grid supply can offer additional benefits such as improved reliability for remote customers and reduced bushfire risks.

Remote customers with an existing grid connection have no incentive to move off-grid on their own, as they do not face the full costs of maintaining the network assets, which are spread across all customers. An off-grid solution is only likely to eventuate if undertaken by the NSP as an economically regulated service.

Network service providers should be allowed to offer off-grid supply as a regulated service where off-grid supply would be cheaper than maintaining a grid connection. The total potential savings across the National Electricity Market (NEM) would be very significant.

To ensure that consumers continue to receive safe and reliable electricity supply irrespective of the energy supply model there should be:

- Enforceable standards for reliability,
- Universal access to dispute resolution processes,
- Consideration of price controls where customers may have difficulty accessing competitive offers, and
- Ideally, a nationally-uniform electrical safety regime.

The AEMC should establish the regulatory framework that ensures customers have access to safe, reliable and affordable electricity supply. Regulators should tell NSPs what to deliver (a safe, reliable and affordable electricity supply) but they should avoid telling them how to deliver. The same approach should apply to customers. They have a right to safe, reliable and affordable electricity supply but they should not be given the power to decide how their electricity is supplied.

In order to ensure a competitive market it will be crucial to enforce certain service supply conditions. The regulated network service provider should procure microgrid or off-grid power supply assets through an open and transparent competitive tendering process subject to ring-fencing requirements. Regulated network service providers should be prohibited from self-supplying individual power system assets, meaning that they must obtain these services on the contestable market. Customer relationships and billing should be managed by a retailer (or equivalent).

We would be very happy to discuss these issues in further detail with the AEMC. We look forward to contributing further to this important area for policy development.

Responses to questions raised in the consultation paper

QUESTION 1: JURISDICTIONAL OPT-IN PROVISIONS

(a) Should the arrangements supporting the transition to off-grid supply include an explicit mechanism to enable jurisdictions to determine when the national framework for SAPS would come into effect for DNSPs in their jurisdiction?

(b) Should this mechanism provide jurisdictions with the flexibility to opt-in to the national framework on a more bespoke basis e.g. on a regional or distribution area basis, rather than state or territory wide?

Jurisdictions should be allowed to determine when the national framework for SAPS would come into effect for their DNSPs. States and territories might wish to provide an additional layer of customer protection using licensing, for example. State and territory governments have responsibilities toward energy customers and will want to know that their citizens are adequately protected before opting in to a national framework.

Distribution network issues vary by geography and network. It would make sense to allow a more bespoke approach on a regional or distribution area basis.

QUESTION 2: EFFICIENCY PRE-CONDITION

(a) Is the RIT-D and supporting consultation process appropriate in the context of SAPS, including in respect of the different models of SAPS supply (that is, microgrids and IPS)?

(b) To ensure they remain fit-for-purpose in the context of SAPS, what (if any) amendments may be required to:
- the RIT-D test (including to the classes of market benefits and costs)
- the RIT-D consultation process and information requirements (including in relation to the non-networks options report), and
- the AER's application guidelines?

(c) Is there a need to develop a light handed, targeted test to apply where the RIT-D is either not applicable or not proportionate? What might this test and/or assessment process look like?

The RIT-D should be reviewed and redesigned for application to stand alone power systems. The CEC would support a "light-handed, targeted test to apply where the RIT-D is either not applicable or not proportionate".

To avoid damaging the competitive market for off-grid systems, NSPs should only be permitted to provide regulated off-grid services where the use of off-grid supply would result in network savings and the customer has no financial incentive to obtain off-grid supply from the competitive market. Off-grid services should remain completely contestable and consumers should always be allowed the option of choosing an off-grid supply from a provider that is not contracted by a NSP. NSPs should be allowed to cross-subsidise rural power supply using SAPS because poles and wires supply is already cross-subsidised and using SAPS would be cheaper. However private suppliers of SAPS should always be allowed to compete against NSPs for power supply, regardless of whether and how the NSP is allowed to cross-subsidise rural electricity supply. This approach will ensure competition, which will drive innovation, better outcomes for customers supplied by microgrid or off-grid supply and lower costs for all customers.

QUESTION 3: CONSUMER CONSENT PROVISIONS

(a) Is a requirement for customer consent necessary? If existing consumer protections can be maintained for SAPS customers, is consent necessary? If so, should this be based on a unanimous or majority consent model? What are the implications and issues associated with each model?

(b) Are customers equipped to make informed decisions, particularly with respect to understanding what they are agreeing to in terms of reliability and security, and potentially price, outcomes? Should explicit informed consent be required before DNSPs transition customers from the grid to supply via a SAPS?

(c) Where consent is considered appropriate, could incentives be offered by DNSPs to secure the consent of affected customers? What might these be (and could the benefits of a SAPS be shared)?

(d) What alternative mechanism(s) could be used to ensure the long-term interests of affected customers are met?

Customer consent should not be required in relation to how electricity is supplied, provided that there are adequate consumer protections for reliability, quality and price.

Regulation should be with respect to outcomes, rather than inputs. Regulators have an important role in protecting consumers with respect to electrical safety, pricing and reliability, but they should minimise their involvement in determining how services should be delivered and the technologies employed. Regulators should not push complex decisions onto customers by requiring complex consent provisions. Customer protections should be technology neutral and should guarantee reliability, quality and price regardless of the manner in which the electricity is delivered.

Incentives or adjustment programs could provide support for the transition to a stand-alone supply. For example, it might be cheaper for networks to support upgrades to customer machinery to make them better suited to operation on a microgrid supply. Where incentives or adjustment packages are made available they should be available on an equal basis using transparent eligibility criteria.

Key to the success of this approach will be to demonstrate that stand alone power systems can provide a better service at a better price. The Western Power trials were outstanding in their success and in the way that they measured customer satisfaction and the quality of the service received. Rollout of microgrid solutions elsewhere should be at a measured pace initially and (ideally) commencing where there is local support for the proposal approach.

QUESTION 4: REGULATORY OVERSIGHT ROLE

(a) Is there a need to incorporate a formal oversight and/or approval role by the AER (or other appropriate body) in relation to the transition arrangements for DNSP-led SAPS?
(b) Who would be best placed to perform such a role?
(c) If the AER is the appropriate body, what additional benefits might be provided by giving the AER additional powers in relation to SAPS, given it is already responsible for monitoring, investigating and enforcing compliance with various aspects of the energy laws and rules?

Customers who are supplied their electricity via alternative energy supply models (such as a microgrid) might not be able to easily shop around, change providers and utilise competitive tension. Some state and territory governments are actively considering whether a licensing regime for operators of microgrids is warranted and these frameworks already exist in some states (eg. South Australia). Alternatively, the AER's framework for registration of embedded network managers could be extended to include managers of independent microgrids.

The regulatory role could be undertaken by the AER or by jurisdictional regulators (eg. the Independent Pricing and Regulatory Tribunal, IPART or the various Essential Services Commissions.

There might be a need for price monitoring and regulatory powers to intervene in cases of price gouging by retailers.

QUESTION 5: GRID-CONNECTION PRECONDITION

(a) Should new customers or developments without an existing grid-connection be eligible for SAPS provision facilitated by a DNSP? Why or why not?
(b) Would new customers always have a financial incentive to obtain SAPS from the competitive market? Could implementation of a SAPS for a new customer or group of customers by a DNSP result in network savings?
(c) Would enabling DNSPs to consider and potentially implement a SAPS solution as an efficient alternative to grid connection for new customers damage the competitive market for SAPS? In answering this question, consider new customers located in remote areas where a competitive market for SAPS may not be established.
(d) What are the potential issues associated with DNSP obligations to connect where SAPS are regulated under the national framework?

If a new customer would have been eligible for a grid connection using 'poles and wires' then they should also be eligible for SAPS provision, provided that would be cheaper than providing a grid connection.

New customers will not always have a financial incentive to obtain SAPS from the competitive market. Rural networks are cross-subsidised for reasons of social and equity policy considerations. Allowing use of microgrids does not stop cross-subsidy to rural customers. It ensures that the rural subsidy dollar can be spent more efficiently. In the short to medium term it will remain cheaper to access electricity via a cross-subsidised microgrid provided by a NSP compared to supply from the competitive market.

By reducing network spending there are savings that can benefit all of the customers as well as the shareholders of the NSP.

In order to ensure a competitive market it will be crucial to enforce certain service supply conditions. The regulated network service provider should procure microgrid or off-grid power supply assets through an open and transparent competitive tendering process subject to ring-fencing requirements. Regulated network service providers should be prohibited from self-supplying individual power system assets, meaning that they must obtain these services on the contestable market.

Where these conditions are met, enabling DNSPs to consider and potentially implement a SAPS solution as an efficient alternative to grid connection for new customers would improve the competitive markets for SAPS.

It is not immediately apparent that a national framework will be the optimal approach to regulation of SAPS systems. Regulatory frameworks should be appropriate to the scale of the system being regulated. It might be impractical for the AER to take a hand-on regulatory role for (potentially) thousands of islanded microgrids. State and territories might choose to license under their own Acts and that could be a more practical approach.

QUESTION 6: RIGHT OF RECONNECTION

(a) Should existing reconnection rights apply unchanged to DNSP-SAPS customers wishing to seek reconnection to the grid? Alternatively, should the SAPS arrangements include special rights for DNSP-SAPS customers seeking to reconnect/revert?
(b) Should the reconnection rights of DNSP-SAPS customers who have provided consent (where applicable), or new customers, differ from the rights of customers who have not provided their consent to be moved?
(c) What might a “return to grid process”, including charges, look like for DNSP-SAPS customers?
(d) Would a mechanism need to be designed to avoid any potential to burden other customers with the costs of reconnection?

In a situation where a community elects to go off-grid utilising a privately owned and operated microgrid, then there is a valid question as to whether that should involve the community foregoing its (existing) rights to supply. An acceptable compromise might be to accept that a community has foregone its (existing) right to supply by the local distributor after it has been off-grid and supplied by a privately owned and operated network provider for, say, three years. This would enable the community to understand through its lived experience the implications of taking an irrevocable decision to forego its rights to supply by the local distributor.

An alternative approach might involve a DNSP levying an ‘option charge’ on communities that would like to experiment with going off-grid and would also like the option of returning to the grid at a future time. The option charge would be a payment to the DNSP to cover the costs of retaining the option of grid reconnection. We understand that the ‘option charge’ approach would not be feasible in a situation where a DNSP needs to replace poles and wires supply with a microgrid after a natural disaster, such as a bushfire.

QUESTION 7: DEFINING THE SAPS SYSTEM SERVICE(S)

(a) Should the national framework be designed around one model of SAPS service provision which could accommodate various circumstances? What might this model look like?
(b) If the answer to the previous question is no, should this review focus on establishing a framework that allows DNSPs to pursue a variety of approaches to SAPS service provision, depending on the circumstances at hand? Why or why not?
(c) In what circumstances (if any) might it be appropriate for a DNSP to own/operate a vertically integrated SAPS solution?
(d) When (that is, at what stage point in the process) would contestability in the provision of SAPS be tested and by who?

The regulatory framework should avoid locking the industry into one particular business model. There will be a need to accommodate different scales of projects. The most efficient rules and market frameworks for a stand-alone grid serving 10,000 people are likely to be very different to those best suited to a microgrid serving several properties.

DNSPs should be able to pursue a variety of approaches to SAPS service provision because circumstances vary and things change. Innovation would be unduly constrained if the regulations are designed around today's business models only.

DNSPs should be allowed to own/operate a vertically integrated SAPS solution in circumstances where that would be more efficient and cost effective than using competitive arrangements. Competition should be considered a means to an end, not a policy objective.

Provision of SAPS services should always be contestible, even if NSPs are allowed to cross subsidise them. Generation should be competitive. Distribution will be a natural monopoly. In small microgrids there might not be sufficient customers to sustain competition in retailing. In those circumstances a contract for monopoly retailing services could be tendered periodically.

QUESTION 8: ROLE OF THE DISTRIBUTOR

(a) Are the issues identified in the contestability of energy services rule change applicable in the context of SAPS?
(b) Is it necessary and appropriate to restrict the ability for DNSPs to earn a regulated return on behind-the-meter and/or in-front-of-the-meter assets specifically associated with the provision of SAPS? Why or why not?
(c) In what circumstances (if any) might it be appropriate for a DNSP to own/operate a vertically integrated SAPS solution (that is, to seek an exemption (where relevant) from restrictions on asset ownership)?

There is likely to be a need to reconsider the applicability of the contestability of energy services rule change in the context of microgrids. In a microgrid with a single NSP and a single retailer it might make sense to allow the NSP to own and operate energy storage.

Competition is a means to an end, not an end in itself. On a microgrid with a single retailer it might not be practical for a NSP to procure energy services competitively.

A DNSP should be allowed to own/operate a vertically integrated SAPS solution where there are clear financial benefits and competition is not feasible due to isolation or lack of scale.

QUESTION 9: PROVISION OF RETAIL SERVICES

(a) Is it likely to be feasible to design arrangements to provide SAPS customers with access to retail competition? What might these arrangements look like?
(b) What specific retail services would need to be provided to customers supplied via a SAPS model of supply?
(c) Is there a need for a separate retailer role (distinct from the provision of other services) within the SAPS model of supply? Why/why not?
(d) Should retail services be managed by an authorised retailer?

It is unlikely to always be feasible to provide SAPS customers with access to retail competition. It will probably depend on the number of customers on the microgrid. Retail competition could be in the form of a competitive tender for provision of monopoly retailing services for an agreed period of time.

Retail services would include metering and billing, a retailer of last resort arrangement and other standards expected from suppliers of an essential service.

It is questionable whether retailers are needed in a microgrid supply arrangement, especially if the number of customers is relatively small. It could make sense to replace the retailer with an algorithm managed by the NSP.

It might make sense to require the use of an authorised retailer when the customer base exceeds a threshold. Exemptions could allow NSPs to undertake the retail role in small microgrids where there is a clear benefit to all concerned.

QUESTION 10: OTHER ROLES/RESPONSIBILITIES SPECIFIC TO STAND-ALONE POWER SYSTEM PROVISION

Who are the key stakeholders within a SAPS model of supply (other than the DNSP and the retailer) and, specifically, what would be their key roles and responsibilities?

Generator(s) should be able to sell energy services at an agreed price. The NSP should be able to use energy storage for energy arbitrage as well as energy services, where the market is insufficiently established to provide services on a competitive basis.

QUESTION 11: TREATMENT OF EXISTING MARKET PARTICIPANTS

(a) Which existing market participants (if any) may be impacted by a DNSP's decision to transition a customer (or group of customers) to a SAPS model of supply?
(b) Should DNSPs be required to consider the impact of transitioning a customer (or group of customers) to a SAPS on these participants? Why or why not? Via what mechanism?
(c) Is it necessary to put in place special arrangements for market participants, including embedded generators or retailers, who may be affected by a DNSP's decision to transition customers to a SAPS model of supply? What might these arrangements involve?

Embedded generators on the distribution network and others whose business model relies on access to the wholesale market would be worst affected by a decision to island a microgrid.

These sorts of impacts should be considered when considering transitioning a grid to a SAPS supply. Areas where embedded generators would be affected could be identified and possibly made a lower priority as part of a staged approach to implementation. In other words, NSPs could commence the transitions to SAPS systems where it would be least problematic for existing market participants.

If embedded generators are required by law to give three years' notice of closure then equity considerations would imply that there should be a notice period where a consumer (or group of consumers) represents a material demand for energy. Where an embedded generator would be affected by a proposal to transition to a SAPS supply, a three year notice period would be appropriate. Embedded generators should not be in a position to veto a SAPS proposal, otherwise customers (or shareholders) will pay the inefficiency penalty. Consideration should also be given to the notice period in the energy supply contract.

Embedded generators are far more geographically constrained than retailers. An embedded generator can't move the focus of its business to other areas in the same way that a retailer is able to. For retailers, the advent of stand-alone power systems should be considered part of the risk of operating in a rapidly changing market.

QUESTION 12: ROLES OF AEMO AND THE AER

(a) What role could/should the AEMO play within the framework for SAPS provision by a DNSP?
(b) What role could/should the AER play within the framework for SAPS provision by a DNSP?

The role of AEMO in stand-alone microgrids should be minimised where possible. If a microgrid is not connected to the national grid, there should be no need to allocate AEMO a monopoly role in grid and market management. There might be an argument for allowing AEMO to competitively tender for roles in microgrid management, but it should not be given a privileged position over other potential grid and market operators in a competitive market.

The AER will continue to have a role in assessment for purpose of calculating the regulated asset base and allowable rates of return for NSPs.

QUESTION 13: RETAIL PRICE PROTECTIONS

(a) If retail competition is not possible in SAPS, what alternative protections may be appropriate (e.g. retail price controls) for customers receiving supply via SAPS?
(b) Would applying the pricing condition from the AER's retail exempt selling guideline to not charge more than the standing offer price that would be charged by the local retailer be appropriate for SAPS, if retail competition does not apply? Is there an alternative price control that would be more appropriate?
(c) In the areas that currently have price regulation, is extending that price regulation to customers in SAPS an appropriate approach?

Retail price controls will be required if retail competition is not possible.

Retail price controls will require a reference point. The standing offer price would be a logical choice. Some jurisdictions are proposing a Basic Service Offer, which could also be a suitable reference point.

In the areas that currently have price regulation, extending price regulation to customers in SAPS would be appropriate.

QUESTION 14: OTHER NATIONAL ENERGY-SPECIFIC CONSUMER PROTECTIONS

(a) The Commission has suggested a general principle that energy-specific consumer protections for customers being supplied via a DNSP-led SAPS should be equivalent to those for grid-connected customers. Are there any significant provisions that wouldn't apply, or would require amendment for customers under a DNSP-led SAPS model of supply?

Customers would not have the ability to switch retailer in situations where there is a single retailer. This could be addressed by allowing monopoly provision of retail services, which are periodically competitively retendered. It would be helpful to monitor the performance of retailers supplying microgrids to allow for comparison and service improvement when retailing contracts are retendered.

QUESTION 15: CONSUMER PROTECTIONS SPECIFIC TO SAPS CUSTOMERS

(a) Are there any additional consumer protections that may be necessary for SAPS customers?
(b) In relation to detailed product information for the SAPS, what are the minimum provisions that should apply (if any)?

Customers should not be expected to move to off-grid supply unless it is offered to them at a price, and with protections, similar to those for electricity supplied via the national grid.

If network service providers are permitted to provide microgrid or off-grid supply as a distribution service it will be crucial to put in place customer protections and to ensure that rural customers are aware of these measures. Customers in remote areas who are currently

connected to the grid are only likely to want to move to off-grid supply if it is no more expensive than their current tariff for grid power.

Standards for reliability are crucial. The CEC is also of the view that price controls will be important to reassure rural customers that they will not be disadvantaged by the proposed changes. An appropriate point of comparison would be the local standing offer price charged by the local area retailer for new connections.

Regulation will be important to guarantee equitable reliability and price outcomes for rural customers.

QUESTION 16: OPTIONS FOR PROVIDING ELECTRICITY-SPECIFIC CONSUMER PROTECTIONS

To provide equivalent protections for consumers receiving electricity supply via SAPS is the most efficient approach to amend the jurisdictional Acts adopting the NERL, as well as amending the NERL and NERR? Is there an alternative approach which may be more effective?

Amending the jurisdictional Acts adopting the National Energy retail Law (NERL), as well as amending the National Energy Retail Law and Rules (NERL and NERR), would be one potential approach. However there might be a desire to establish registration or licensing of microgrid operators to ensure that they can be held accountable for meeting reliability standards. Jurisdictions might choose to license under their own Acts. This might be considered more practical than the AER regulating thousands of microgrids. Regulatory frameworks should be appropriate to the scale of the system being regulated. In that sense, microgrids might be better suited to regulation by states and territories rather than the AER.

Ideally, a nationally-consistent electrical safety regime would reduce unnecessary red tape.

QUESTION 17: RELIABILITY, SECURITY AND QUALITY

(a) What reliability, security and quality standards are appropriate for DNSP-led SAPS? Should the same reliability and service quality levels apply as for grid-connected customers?
(b) Are there any existing network reliability, security and quality standards that would be difficult to comply with for SAPS? For example SAIDI and SAIFI requirements may have equivalent principles, but the practice for determining them may be different in SAPS.
(c) Should GSLs be determined for DNSP-led SAPS? If so, should the same standards apply as for grid-connected customers (why/why not)?

The CEC support the proposal to amend the National Energy Retail Law and Rules (NERL and NERR) and/or relevant jurisdictional instruments to implement an appropriate regime of energy-specific consumer protections for off-grid customers, including reliability standards and price controls. We are of the view that both reliability standards and price controls would be necessary to address concerns that that rural or fringe-of-grid customers might otherwise receive a lower standard of service compared with grid-connected customers.

Standards for customers served by a SAPS supply should be at least as good, if not better, than the 'poles and wires' equivealent. If a community elects to go off-grid with the local DNSP continuing to deliver electricity supply using a microgrid then the obligations of the local distributor should remain more or less the same as when the community was grid-connected. The safety and reliability of the power supply should be maintained at the same or superior standards and the price of the electricity supplied should be no more expensive.

QUESTION 18: OTHER JURISDICTIONAL CONSUMER PROTECTION CONSIDERATIONS

(a) Are the other jurisdictional issues presented in section 5.6 less likely to be a concern for DNSP-led SAPS (why/why not)?

(b) Should any of these issues be examined in greater detail in relation to DNSP-led SAPS?

Price controls might be necessary to ensure that consumers within stand-alone microgrids pay a fair price for their electricity where there is a lack of competitive tension. Prices could be regulated by bodies such as the Independent Pricing and Regulatory Tribunal (IPART) and the Essential Services Commission or by reference to an accepted benchmark such as the standing offer price.

QUESTION 19: THIRD PARTY STAND-ALONE POWER SYSTEMS – DECISION MAKING FRAMEWORK

(a) Which party should make the decision to transition customers to a SAPS and which party/ies should approve the decision?
(b) What should be the grounds for deciding to transition customers to a third party SAPS?
(c) Which mechanisms should be employed to seek approval and/or consent?
(d) If the consent of transitioned customers is sought, what is the proportion of customers that should provide their consent? Should consent factors be defined, and what should they be?
(e) Should transitioned customers, either individually or collectively (in the case of a microgrid), retain the right to reconnect to the grid?

The NSP should make the assessment of which customers should be transitioned to a SAPS supply. The grounds for deciding to transition customers to a SAPS should be a demonstrated ability to supply at lower cost to the system, the same or lower cost to customer and with improved reliability.

If the consent of transitioned customers is sought then the threshold should be transparent and unambiguous. For example, the test could be a simple numerical majority of customers and the majority of demand. This approach would ensure that large consumers' concerns are addressed while being attentive to the concerns of the majority of small consumers.

In the long term, there might not be a strong case for customers retaining a right to determine how their electricity is supplied, especially where it is supplied by the NSP as part of its regulated service. In the short to medium term however, it makes sense to begin where customers have indicated they would welcome a shift to stand-alone power systems and microgrids.

In a situation whereby a community elects to go off-grid utilising a privately owned and operated microgrid, then there is a valid question as to whether that should involve the community foregoing its (existing) rights to supply. An acceptable compromise might be to accept that a community has foregone its (existing) right to supply by the local distributor after it has been off-grid and supplied by a privately owned and operated network provider for, say, three or five years. This would enable the community to understand through its lived experience the implications of taking an irrevocable decision to forego its rights to supply by the local distributor. An alternative approach might involve involve a DNSP levying an 'option charge' on communities that would like to experiment with going off-grid and would also like the option of returning to the grid at a future time. The option charge would be a payment to the DNSP to cover the costs of retaining the option of grid reconnection. We understand that the 'option charge' approach would not be feasible in a situation where a DNSP needs to replace poles and wires supply with a microgrid after a natural disaster, such as a bushfire.