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Scott Nicholson
Manager Energy Programs
NSW Department of Planning and Environment
NSW Government

Submitted by email to: empoweringhomes@planning.nsw.gov.au

9 August 2019

Dear Mr Nicholson

NSW Government Empowering Homes Program, Market Sounding Paper, July 2019

Thank you for the opportunity to provide feedback on the NSW Government's Empowering Homes Program (**NSW Program**).

AGL Energy's (**AGL**) focus on technology to enable increased customer engagement is reflected in our refreshed strategy, under which a range of emerging growth opportunities in distributed energy have been identified, including bringing to market residential battery offerings, expanding our view to consider e-mobility more broadly, and utilising smart home and energy efficiency technologies that aim to leverage the convergence of data and energy. We are also working with other market participants to trial innovative programs that draw upon customers' distributed energy assets, most notably our Virtual Power Plant (**VPP**) Program in South Australia and our Demand Response Program in New South Wales that are both funded in partnership with the Australian Renewable Energy Agency's (**ARENA**) Advancing Renewables Program.

Our South Australian VPP Program, that commenced in 2016 comprises the sale, installation and orchestration of 1,000 energy storage systems installed behind-the-meter in homes and small businesses in South Australia. When complete, the VPP will deliver up to 5MW of peak generation and 12 MWh of storage capacity to homes, the National Electricity Market (**NEM**) and a range of network services across metropolitan Adelaide.¹

Our NSW Demand Response Program that began in 2017 involves the deployment of 18 MW of demand response reserves from a combination of commercial and industrial participants and AGL's NSW residential customers. The reserves will be delivered when called upon by AEMO under the Short Notice Reliability and Emergency Reserve Trader (**RERT**).²

We therefore provide our feedback based on the objectives of the NSW Program and our learnings from participation in other Government distributed energy resources (**DER**) programs.

¹ For further information regarding AGL's ARENA SA VPP program, including the two milestone reports published to date, please refer to <https://arena.gov.au/projects/agl-virtual-power-plant/>.

² For further information regarding AGL NSW Demand Response program, including our first milestone report, please refer to <https://arena.gov.au/projects/agl-demand-response/>.



AGL welcomes the NSW Program as an important market development initiative. In order to best achieve the Program objectives, we consider that the design of the NSW Program should be informed by the following guiding principles:

- deliver an optimal customer experience in the application of the NSW Program;
- enable efficient market-based solutions for the rollout of solar-battery and battery systems under the NSW Program; and
- facilitate fair administration of the NSW Program by appropriately allocating risks to the party(s) best able to manage them.

In summary, we recommend that the Delivery Partner role focus on capabilities to manage the customer relationship, encompassing the Program Administrator responsibilities and the Approved Suppliers/ Installers responsibilities. In order to appropriately manage the risks associated with the provision of loans under the NSW Program, we would recommend the Government consider establishing a special purpose vehicle mandated with the Financial Administrator responsibilities.

In terms of contract tendering under the NSW Program, we would recommend that the Government appoint Delivery Partners for the entirety of the NSW Program or for a minimum of 5 years and that the Government establish the ability to audit Delivery Partners within the term and remove them (should they be found to be acting unlawfully).

We would also encourage careful consideration of the risks associated with implementing an annual cap on installations, that could create artificial fluctuations in the market impacting the local industry and ultimately customers.

We elaborate on these recommendations and provide a range of additional insights and recommendations in the Attachment on:

- business systems;
- eligibility criteria;
- loan arrangements and repayments;
- equipment requirements; and
- warranties and guarantees.

We would welcome the opportunity to discuss these recommendations with you to support the long-term success of the NSW Program.

Should you have any questions in relation to this submission, please contact Kurt Winter, Regulatory Strategy Manager, on 03 8633 7204 or KWinter@agl.com.au.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'C. Hristodoulidis', with a stylized flourish at the end.

Con Hristodoulidis

Senior Regulatory Strategy Manager



ATTACHMENT

Program roles and responsibilities

In our view, it is important that the roles and responsibilities are undertaken by the entity best able to perform them and that risks are appropriately allocated between government, delivery partners and service providers/installers.

We note the broad responsibilities that are envisaged for Delivery Partners, including:

1. financial administration functions - ranging for loan eligibility to managing customer accounts; and
2. program administration functions - ranging from approval of suppliers and systems to managing warranty claims and customer complaints, monitoring performance, as well as registration with the Australian Energy Market Operator (AEMO).

Based on our experience, we consider it important that Delivery Partners are well placed to manage the customer relationship and have direct arrangements with customers. We would therefore recommend that the Delivery Partner role focus on capabilities to manage the customer relationship, encompassing the Program Administrator responsibilities and the Approved Suppliers/ Installers responsibilities.

We believe that engaging Delivery Partners who have expertise in providing a seamless customer experience would support the delivery of the best customer outcomes. This approach would mean Delivery Partners have business practices that effectively integrate management of system installation, product performance monitoring (including safety and quality assessments) and warranty and customer complaints. Many of these responsibilities are already contemplated under the Program Administration responsibilities and we consider it appropriate that Delivery Partners fulfil these responsibilities.

In order to enable Delivery Partners to be able to effectively and efficiently resolve customer complaints, it is important for the Delivery Partners to have contractual arrangements in place with the approved installers.

We also consider that engaging Delivery Partners with expertise in managing the customer relationship would enable more efficient market-based solutions for the rollout of solar-battery and battery systems under the NSW Program. Such an approach would build upon the competitive market's existing capabilities by enabling complementary product and service offerings. This could further incentivise customer uptake under the NSW Program as well as delivering additional savings to individual customers.

As the Australian Energy Market Commission (**Commission**) concluded in its 2019 Retail Energy Competition Review, 'while early in the development phase of battery technology, [the Commission's] analysis indicates that contestable retail markets are facilitating innovation and are likely to result in offers that meet consumers preferences'³. Innovative product and service offerings that draw upon distributed energy assets could facilitate a range of value streams for the customer as follows:

- Self-consumption: Within a residential solar and storage installation, the primary benefit flows to the consumer from the increase in solar self-consumption resulting from the storage system.
- Networks services: Some BTM service offerings can provide further value to the networks by providing peak load shaving and voltage managements services that potentially avoid further infrastructure expenditure.

³ See further Australian Energy Market Commission, 2019 Retail Energy Competition Review, Final report, 28 June 2019, page 166, available at <https://www.aemc.gov.au/sites/default/files/2019-06/2019%20AEMC%20Retail%20energy%20competition%20review%20-%20Final%20report.PDF>.



- Wholesale market value: BTM services can also create value for retailers, by reducing wholesale exposure during peak demand periods and using the BTM asset to provide synthetic inertia and frequency balancing services that may be rewarded in wholesale ancillary markets. These additional values streams could be passed through to customers via competitive product offerings.

On the other hand, we consider that there are substantial risks in bundling the Financial Administrator responsibilities in the Delivery Partner role and relying upon third party intermediaries to fulfil these functions.

In our view, the Financial Administrator would be responsibility for risks that are of a different nature to those intended to be managed by the Program Administrator. While the Program Administrator's function will be to manage the quality of services provided to the customer, including installation, performance and warranty matters, the Financial Administrator's function will be focused on managing credit-based risk. While there are clear advantages in the Delivery Partners managing the customer relationship from a program administration and supply and installation perspective, we consider that the Financial Administrator function should be separated from the Delivery Partner role.

In order to appropriately manage the risks associated with the provision of loans under the NSW Program, we would recommend the Government consider establishing a special purpose vehicle mandated with the Financial Administrator responsibilities. The Government/SPV could then contract with the financiers/capital providers under the scheme, and then offer loans to customers, which would be backed up by the relevant finance contracts.

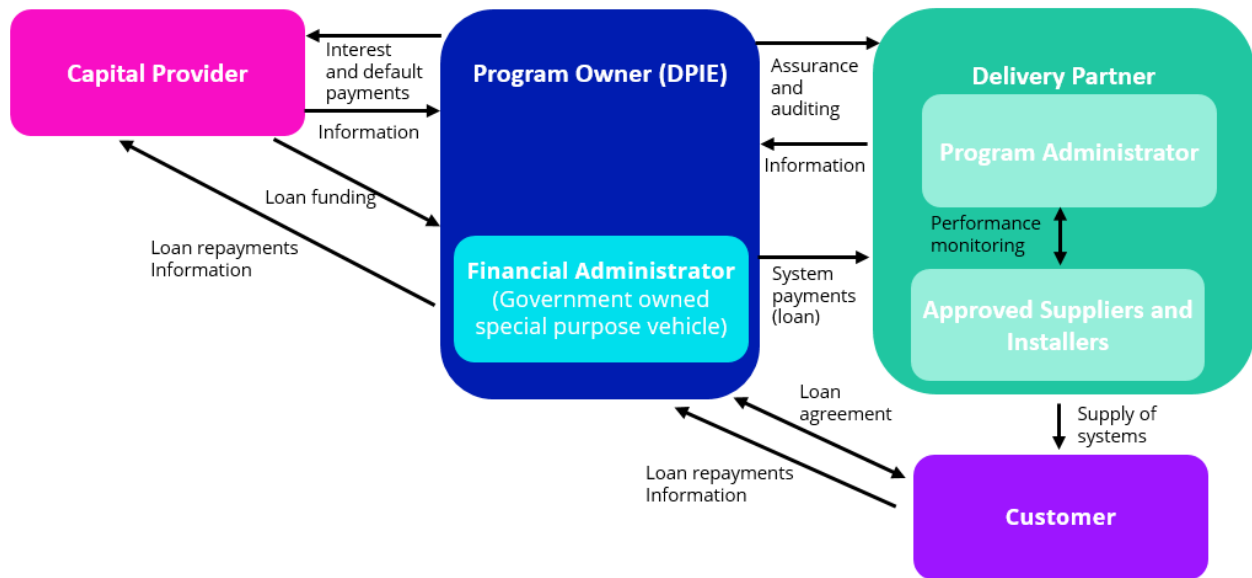
Delivery Partners could then be focused on the program administration and supply/installation of the battery systems and could also contract directly with the government/SPV. This would minimise the need for intermediaries in the process, which in our experience has added significant delays and complexities in agreeing the contractual arrangements.

In our recent experience with other state government subsidy schemes, when commercial intermediary entities have taken on the combined financial and program management responsibilities in a scheme, this has added considerable risk and delay in program delivery, due to the complexity in agreeing commercial arrangements between all the entities.

Among other issues, if there is a requirement for Suppliers to enter into contracts with these intermediaries, then there is the risk that Suppliers' contracts may inadvertently become linked to the Delivery Partners' credit contracts under Australian Consumer Law. As the Delivery Partner credit provider risks becoming statutorily liable for misrepresentations or failures of the Suppliers under the Program, we envisage that additional indemnities would be sought from the Supplier which risk being priced as an additional cost to consumers. Overall, we think these risks can be avoided if the provision to loans to customers is separated from the program and supply/installation components of the scheme, by the government/SPV contracting with each.

Given that the NSW program is targeted at low income households, there is also a risk that certain customers may participate believing that the battery savings will pay for the loan repayment costs, which may lead to a higher default rate. Accordingly, we would support the Government acting as guarantor for the loan amounts. In our view, it would not be practical for the Program Administrator to de-install batteries if customers defaulted on their loans.

Our recommended allocation of roles is illustrated in the figure below:



In our view, this allocation of roles would ensure that risks are appropriately allocated to the parties best able to manage them by clearly delineating the Program Administrator and Financial Administrator functions. We consider that this approach would support the efficient delivery of the NSW Program by:

- Minimising the program administration costs;
- Positioning the Delivery Partners to provide a seamless customer experience that would support the delivery of the best customer outcomes; and
- Enabling Delivery Partners to offer complementary product and service offerings that could further incentivise customer uptake under the NSW Program as well as delivering additional savings to individual customers.

If the Government intends for commercial entities to fulfil the Financial Administrator responsibilities, we would recommend the Department consider the following matters:

- In order to ensure that the Financial Administrator responsibilities are diligently undertaken and to mitigate against delays in the program's delivery, the Government consider paying the commercial entities an appropriate service fee for the associated administration costs on commercial terms.
- In order to mitigate risks to Delivery Partners associated with customer default on loan repayments, the Government require that the third-party Financial Administrator bears the risk of default to the extent that the law allows. We understand that linked credit arrangements give rise to a range of complex legal issues that parties will need to negotiate in their contractual arrangements. To the extent possible, we consider that Delivery Partners engaging in installations should have the option to not have to enter into linked credit arrangements if they present too many risks in the circumstances.



Contract tendering

The proposed three-year contract and re-tendering approach for Delivery Partner may not align with achieving the Program objectives. We consider that this approach would create substantial uncertainty in the market and a significant administrative burden in the NSW Program that may lead to delay and/or ineffective delivery. In particular, we understand that there are a limited number of installers in NSW (particularly in rural areas). Re-tendering with Delivery Partners every three years could result in installers moving between Delivery Partners resulting in discontinuity in the customer access to support, documentation, and warranties. It could also create a risk that Delivery Partners operate through short term corporate structures that subsequently dissolve between tenders, leaving consumers exposed.

We would recommend that the Government appoint Delivery Partners for the entirety of the NSW Program or for a minimum of 5 years and that the Government establish the ability to audit Delivery Partners within the term and remove them (should they be found to be acting unlawfully).

Annual caps

We would encourage careful consideration of the risks associated with implementing an annual cap on installations. Caps have the potential to create boom and bust fluctuations in the market impacting the local industry and ultimately customers. The Victorian Solar Homes Program is an example of the business continuity problems caps may cause (especially for small businesses).

We understand that there is a limited number of quality installers in NSW (particularly in remote areas) which could present an issue with the proposed ramp up of volumes, particularly where the trajectory doubles. We would recommend setting more gradual install trajectory and associated annual caps. Additionally, the Government should consider establishing a standing review mechanism to enable it to revise the annual caps based on observed market conditions, so as to avoid disruptions to the program delivery.

Auditing and compliance

As discussed above, we would also recommend combining the Approved Supplier/ Installer role with the Program Partner to enable better management of product quality and ensuring a single point of accountability as far as possible.

Customer protections

We appreciate the Department's focus on ensuring robust customers protections throughout the NSW program design and delivery. As noted above, we consider that engaging Delivery Partners who have expertise in providing a seamless customer experience would support the delivery of optimal customer outcomes. We also think that requiring Delivery Partners to have contractual arrangements in place with the approved installers is a key criterion for Delivery Partners to effectively and efficiently resolve customer complaints.

We support the Department's proposal to provide access to a range of tools that would enable customers to make more informed choices.

We also support the proposed requirements for installers, including that:

- installations will be required to meet CEC's Best Practice Guide: Battery Storage Equipment – Electrical Safety Requirements, and AS/NZS 5139 – Electrical Installations: Safety of battery



systems for use with power conversion equipment, when this new standard is released that all approved system suppliers

- all approved system suppliers will be required to be CEC Approved Solar Retailers and signatories to the CEC *Solar Retailer Code of Conduct*; and
- they will also need to comply with the Australian Competition and Consumer Commission (ACCC)'s *New Energy Tech Consumer Code* when it is released (Consumer Code).

AGL contributed towards the development of Consumer Code through formal submissions, technical lead support and ongoing engagement with the BTM Working Group. We think that the Consumer Code has the potential to improve customer confidence by reducing information asymmetry for consumers and requiring minimum and consistent standards for sales practices.

Business systems

When designing the business systems for the program, AGL would encourage the Department to implement a simple, cost-effective and secure data exchange process with Delivery Partners. We would also encourage the Department to develop business systems that reduce the administrative burden on customers by avoiding the need for customers to interface with the business systems on multiple occasions for separate approval processes. Accordingly, we would recommend the Department develop an API functionality with Delivery Partners that would enable Delivery Partners to provide relevant documentation and information to the Department and/or the SPV Financial Administrator in an efficient manner.

Eligibility criteria

In terms of the Delivery Partners' verification of applicants' eligibility under the NSW Program, we would encourage Department to clearly define 'suitable solar photovoltaic (PV) system' for the purposes of paragraph 6(e): *if an applicant is seeking to install a battery-only system then a suitable solar photovoltaic (PV) system shall currently exist at the premises that the battery can be connected to*. While we employ advanced analytics techniques to assess the suitability of a customer's existing solar system, we are not confident that this is widespread market practice. In order to provide appropriate consumer protections, the Department may need to develop a mechanism for assessment.

Loan arrangements

While AGL supports the proposal to deliver interest-free loans to consumers as a way of incentivising the uptake of home batteries, we would recommend the loans be carefully structured to minimise default. Given that the program is targeted at low income households, there is a risk that certain customers may participate believing that the battery savings will pay for the loan repayment costs, which may lead to a higher default rate. Given these circumstances, we would also support the Government acting as guarantor for the loan amounts.

As discussed above in the context of program roles and responsibilities, we would recommend consideration as to whether the Delivery Partners' provision of finance gives rise to a linked credit arrangement under the Australian Consumer Law. We understand that linked credit arrangements give rise to a range of complex legal issues that the parties will need to negotiate in the agreements. In our view, suppliers/ installers should have the option to not have to enter into linked credit arrangements if they present too many risks in the circumstances. We consider that this risk would be avoided if a Government-owned SPV was established to fulfil the Financial Administrator function (and the Government contracted with the relevant finance providers).



In order to maximise participation across the NSW customer base, we would also recommend that the Department consider including loan structures that support alternative ownership models, for example:

- power purchase agreement (PPA) models where the asset is owned by a delivery partner or approved supplier/installer and leased to the customer in exchange for occasional control;
- where the customer hosts the solar and battery asset in exchange for a financial reward; or
- Another alternative structure is for the NSW Government to offer subsidies to low income earners, and then offer low or no interest loans to middle income earners. We think given the very early stage of the home battery market in Australia and the current cost of batteries, this structure may be more appropriate and would encourage broader public participation in the scheme.

Loan repayments

In our view, loan repayment periods for battery systems lower than 10 years will likely result in customer savings from the battery being lower than the cost of loan repayments during the repayment period. Further, most market leading energy storage systems cost in excess of \$13,000 when installed by a reputable, skilled installer. Accordingly, we consider that providing an interest free loan of \$9,000 may serve to distort the market toward cheaper, lower quality, and smaller battery systems that are unlikely to provide the savings that customer anticipate.

Equipment

Eligible systems – relevant domestic and international standards

While we appreciate the Department's interest in developing the market and improving public and private outcomes through the development of a technology roadmap, we consider that Standards Australia, as an independent body, is best placed to develop and adopt technical standards that reflect international best practice through robust stakeholder engagement and with the support of relevant industry expertise. We would therefore recommend that the Department adopt only those standards formally adopted through the Standards Australia process.

Virtual Power Plant capability

We would encourage the Department to revise its requirement for customers to commit to participating in a consolidated VPP program. In our view, requiring participation in a consolidated VPP program would reduce competition in the emerging market, add undue cost for hardware vendors associated with integrating to a single system, and would limit customer choice. A preferable approach would be to allow market participants to utilise assets deployed under the NSW Program to appropriately manage system security and reliability concerns as and when they arise and in response to AEMO's determinations. This would provide market participants with greater flexibility to respond to system events without detrimentally impacting upon customers' needs.

We also consider that requiring Delivery Partners to become compliant with a new standard pathway presents a substantial business continuity risk. As an alternative, we would encourage the Department to draw upon the 'VPP ready' requirements devised under other state DER schemes.