



Australian Energy Market Commission

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Smart Grid Australia's Response to the 'Power of Choice Review' Directions Paper and other consultations

Smart Grid Australia (SGA) is grateful to the Australian Energy Market Commission for accepting this subsequent submission in response to the Directions Paper. We have developed this submission in light of the AEMC's consultations with the Stakeholders Reference Group and in consultation with our members, many of which have also contributed to this Review through various forums.

In this submission, SGA explains who we are and we also provide our views about the following key issues raised by the AEMC, namely:

- Consumer direct access to their consumption data
- Consent by consumers' for access to the private information
- Accreditation of third parties
- Role of distribution businesses - energy services for network
- Role of distribution businesses - contact with the consumer

Background to Smart Grid Australia

SGA is an independent industry body that supports the industry transformation towards an intelligent and efficient energy grid from generation to the home through the rollout of smart grid technologies. We are represented by a multi-disciplinary range of industry expertise reflecting our diverse membership – including utilities, power engineering suppliers, communications and networking and data management specialists, network construction and research organisations,

In addition, SGA links with other smart grid organisations, including through the Global Smart Grid Forum from around the world, including Korea, the United States, Ireland, Japan, India and Canada. We share best practices, identify barriers and solutions, foster innovation, and address key technical and policy issues and global experiences of smart grid investments in energy systems. We bring these experiences and insights into smart grid practice in Australia.

Benefits of smart grids for demand-side participation

It is SGA's view that networks and retailers will need access to information about how consumers are responding to flexible pricing and the impact of their pricing responses on the networks and the energy load. This information will facilitate greater demand-side participation and ensure the benefits flow on to network providers, retailers and importantly to consumers.

To effectively manage demand-side participation, networks will need smart grid technologies that sense the impact of the load on the network and can enable distribution businesses and retailers to proactively and flexibly respond to changes in demand, including, during peak periods. Smart grid technologies will also be able to detect other pressures on the network including network outages and deliver information to the distribution business, retailer and the consumer to encourage a suitable demand-response.



In addition, smart grids can provide the information and communications tools so the distribution businesses can better manage and balance the supply of electricity from multiple sources including distributed generation. When sources of energy from distributed generation are available, the network will be able to automatically maximise the use of the available energy to consumers through a price response, as well as automating the shift between alternative sources of energy based on energy availability and cost.

Electricity networks that have been upgraded with smart grid technologies will therefore be able to sense, automate and predict all the flows of energy, demand and load availability so consumers, distributors and retailers can quickly respond to changing network circumstances. They will be able to instigate demand-side responses that take the pressure of the network and help to mitigate the need for increasing levels of peak load, while also helping to preserve existing network investments by optimising their operation.

Consumer direct access to their consumption data

A consumer being able to gain access to their data and to choose to make it available to third parties is one of the key benefits and selling propositions of smart meters. SGA believes that as a principle, consumer's will need to own their own data and have easy access to it so they can modify their energy use as well as share their data with energy providers (for example, retailers, third parties and energy service companies selling electricity). Retailers and distributors are currently allowed to use the data for regulated purposes (for example, billing and network planning).

To enable easy access to data, the data will need to be available in a form that is simple to use and meaningful to consumers and other parties. Also consent arrangements will need to be timely so energy providers can access the data when they are dealing with the consumer. This will assist consumers make informed choices about suitable energy service offerings and pricing plans.

Online tools are available to enable consumer data to be available easily through, for example, web portals and other online access technologies. Such portals can at some point bring together consumer data and pricing plan information. This will enable consumers to easily see changes to their energy bills from moving to new pricing plans and to select the most suitable plan for them.

Currently some parties are in the process of providing access to metering data, while other organisations are concerned about the cost of making the data available to consumers. SGA anticipates there is likely to be some confusion about who should provide the data. Energy retailers will have data for billing purposes possibly in a form that is the most relevant to the consumer. They currently have the right to access their data through their retailer on request. On the other hand, distribution businesses may want to start unlocking the information benefits of the meter and choose to build their own data portal.

SGA would suggest consumer data be made available through a single repository, such as a portal that brings together all consumer data into the one access point. This will minimise consumer confusion about which entity they are to approach to access their data. Making the consumer data more accessible from an independent party will minimise any potential conflicts around access to the information. We understand the Australian Government, through the Department of Resources, Energy and Tourism is planning further work on a central consumer data repository.

There are examples of easy access portals and websites, such as the Smart Meter Texas¹ website where consumers can register to access their meter data. This website collates all the metering data from the energy distribution companies, bringing it together into one site.

¹ <https://www.smartmetertexas.com/CAP/public/index.html>



Using a single website or portal for accessing consumer information will also avoid multiple websites being created, reducing costs. With the growing costs of energy provision one of the biggest challenges facing the energy sector, avoiding any additional costs and the flow on to rising prices is a clear benefit of a single website or portal.

The experience from Texas is that the single website or portal encourages the parties to work together to ensure the website continues to remain easy to use and continues to be relevant to consumers.

In the meantime, while a single website or portal is being established for consumers to access their energy data, interim arrangements will need to be put in place. This could include retailers providing consumers with access to their data through a standard form, such as a spreadsheet.

We understand that the National Energy Consumer Framework requires retailers to provide historical data at least once a year for no charge. SGA would suggest that access to customer information in a basic format on a regular basis continues to be without charge and the addition of any value added formatting and insight is a commercial decision for energy distributors or retailers. A government provided portal can aim to provide a very basic service so as not to stifle innovation of third parties wishing to develop commercial models which provide added insight to consumers.

Consent by consumers' for access to the private information

In order for energy providers to be able to access energy consumer data and other personal information, the consumer needs to provide explicit consent. Consent should be provided under a principle of easy, simple, immediate and informed consent. Simple to provide consent will enable consumers to provide access to their data easily when dealing with energy providers particularly, for example, when they are having a discussion about choosing a pricing plan. With this principle, the consent arrangements can be designed to avoid any time lags through, for example, paper processes, and having to wait for a written consent to be received by the energy provider that holds the data.

Again, ultimately consumer data will need to be available online through, for example a portal. This sort of technology could also enable consumers to provide energy providers with immediate and easily accessible consent to their data when it is needed.

Consent to access a consumer's data will need to be available on a temporary or on a more ongoing basis. Temporary consent will be necessary if the consumer only needs to share the information to, for example, discuss pricing plans with an energy provider. Consent to access consumer data on a more ongoing basis will be necessary if the consumer agrees to accept the pricing plan of the energy provider and enters into a contract.

Consent arrangements for accessing consumer data need to include not only data about the consumption of energy from the premises, but also data about energy usage from the NIMI, as this information is also identifiable to the consumer. This information is also considered to be private consumer information.



Accreditation of third parties

SGA believes that the regulation of third parties (including retailers, other energy providers and providers of energy services) may need to be reviewed. There are new entrants that are interested in selling a range of energy-related services to consumers. There are also providers of energy-related services that are not directly selling energy, but are interested in offering products and services for assisting consumers to manage their energy use. Further, new technologies are enabling new energy services and business models to be developed that require a more ongoing relationship with consumers. It is important for there to be a level playing field in the way organisations providing similar services are regulated to avoid some parties having an unfair advantage.

A review of the regulation of third parties could consider whether existing regulatory arrangements are suitable for a changing energy environment. An even 'lighter-touch' set of regulatory arrangements may be more suitable for regulating some market participants, with some regulatory obligations perhaps being reduced because they are no longer necessary.

Possible changes to the regulation of third parties will need to adopt the principle of avoiding market distortions or participants gaining an unfair competitive advantage. This can be achieved by developing regulatory arrangements that are guided by the principle of ensuring a level playing field. The inclusion of all the key players, Government, industry and other stakeholders, in such a review of how third parties are regulated would be the best mechanism to ensure the regulatory arrangements are fair to all and keep to a minimum.

Role of distribution businesses - contact with the consumer

As explained above, opening the market for selling electricity to consumers should be on a level playing field whether the provider of the electricity has been a retailer, distribution business or other market participant. The regulatory arrangements will need to make clear what the market participant can do when they are, for example, selling electricity, maintaining their energy network or delivering other services to consumers.

Arrangements will also need to be put in place ensure that a market participant cannot gain an unfair competitive advantage from their role as another market participant, particularly, for example, distribution businesses benefiting from their role as monopoly network suppliers and the information they have available to them that other participants do not.

Role of distribution businesses - energy services for network augmentation

Currently, where the network load is under pressure, distribution businesses can build additional capacity through additional substations or transformers in increase capacity of the network, or contract with energy service companies to, for example, augment the energy load from local distributed generation. However there are instances where, for example, the regulated reliability requirements favour distribution businesses augmenting their network themselves, because they are driven by reliability requirements and are more confident about the reliability of assets they own. This may not be the most efficient approach to network augmentation, and it is important that network augmentation decisions be driven by efficiency. This will also help to minimise network costs.

Further, distribution businesses face limits on the amount of generation capacity they can own and use to manage load demand and supply. This restricts the amount of demand-side management the distribution business can use on its network. It also restricts the ability of distribution businesses to offer these services as part of their business and expand their sources of revenues.



To encourage the use of efficient demand-side participation, regulatory arrangements that favour network augmentation and constrain sourcing of additional capacity to meet load demand need to be examined to encourage more efficient investment decisions.

To open this part of the market, so distribution businesses have greater flexibility in finding the most suitable solutions for network augmentation, some augmentation solutions may not strictly meet network reliability requirements. To accommodate this, consideration can be given to allowing some flexibility in network reliability requirements to consumers, where they can consent to receiving different reliability levels of service. Such an arrangement could open up differentiated service offerings where consumers are able to choose a less reliable level of service at, for example, a lower price.

Conclusion

Smart grids create the opportunity for energy networks to become more digitalised, so they can use sensors and through communications networks use information to quickly register change in networks circumstances. This will give the networks the capability to predict and respond to such changes automatically, so, for example, network outages can be predicted. The network can quickly recognise when changes occur and automatically modify the flow of energy so it is re-routed to maintain energy supply and minimise the impact on the consumer.

Smart grid technologies will enable consumers to have control over and ready access to their consumption data. Being able to access this data in a useful form will give consumers the opportunity to modify their energy use, respond to changes in prices or peak demand pressures on the network and to also reduce their energy costs.

Consumers will also be able to use their data and knowledge of their usage patterns to choose alternative pricing plans and energy providers that better meet their needs. By owning and having control over the use of their data, consumers can share their energy information with alternative providers so they can assist the consumer explore and choose these pricing options.

SGA is relatively agnostic about accreditation regimes for regulating third parties. Our main objective is that there is a level playing field with low barriers to entry so that innovative new parties can enter the market without having to comply with unnecessary regulatory requirements that limit competition between the parties that are selling energy or those selling energy-related services.

And finally, we believe arrangements can be improved for distribution business to be able to utilise energy services for network augmentation. The starting point is for distribution businesses to be able to make the most efficient decision about whether to augment their network themselves or to engage a third party to provide the network augmentation if they have a more efficient approach. Regulatory arrangements that actively or inadvertently distort making the most efficient decision need to be examined.

Smart Grid Australia