

AEMC

Via submissions web form

28th Oct 2021

Review of the Regulatory Framework for Metering Services

Solar Analytics welcomes the opportunity to provide input to the AEMC on the Review of the Regulatory Framework for Metering Services.

About Solar Analytics

Solar Analytics is an Australian company founded by solar industry veterans, scientists, developers and passionate photovoltaic (PV) experts. We design, develop and supply intelligent rooftop solar and energy management solutions for residential households and commercial businesses. With 35 staff and 25,000 customers across Australia, we are the leading provider of rooftop solar management in Australia with over 500MW of DER under management. Our fleet of Distributed Energy Resources (DER) across Australia have real time solar generation and energy consumption measurement that enables us to provide energy management services for our customers. We also provide extracts from our unique data set to seven DNSPs, plus AEMO, ESB, universities and energy regulators.

Solar analytics' mission is to power the world with as much rooftop solar as possible, since this is the lowest cost and fastest way to

We are driven by providing value from rooftop solar to households and businesses, and hence firmly represent their interests in energy market changes and regulations. Our view is that energy consumers are underrepresented in regulatory discussions.

Scope of submission

Solar Analytics broadly supports the submission by the CEC on this rule change, and increased rollout of smart meters. However, this is only supported if consumers are actually provided with the . Therefore this submission will not go deep in detail on the review, but will emphasise the key points that we believe need attention.

General Comments

The review should consider the barriers to devices such as home energy management systems or smart inverters being recognised for settlement. It is important to distinguish between data access via the cloud versus real time local access.

Policy makers should recognise that most customers do not want smart meters and cost-reflective tariffs and it is a false premise to assume they will be enthusiastically adopted by customers. It is more realistic to assume that most customers do not want a smart meter or a cost-reflective tariff and will adopt them when they are required to.

- The benefit of smart meters has not been realised, and **consumers benefit hardly at all**. The key reason is that the smart meter data is hoarded by the incumbent DNSP/electricity retailer, and is **not made available to the customer or their representative** in a usable format (a csv four times per year or limited dashboard is not fit for purpose in 2021, it needs to be an automated API with consumer choice)
- Consumers pay for the smart meter rollout without receiving the smart meter benefits. CDR is taking far too long and should not delay customers from getting access to the customers own data now
- Smart meters are very limited for the 3M and

Specific Responses

Q1 BENEFITS WHICH CAN BE ENABLED BY SMART METERS

- (a) Are there other benefits which can be enabled by smart meters that are important to include in developing policy under the Review?

The key consideration is that smart meter data needs to be accessible by authorised third parties. The VIC rollout has shown limited benefits from smart meters (at a significant cost to consumers). The key reason for this is that customers are unable to enable third parties to have access to the customer energy data. This stops companies like Solar Analytics and neo-retailers from enticing customers with new and innovative services.

While this is intended to be addressed through CDR, that process is indeterminate in both timing and outcome.

Consumers deserve access to their own data which they are paying for. Allowing DNSPs and incumbent retailers to restrict access is against the objectives of the NER.

The simplest way to achieve this is through mandating the [DER Visibility and Monitoring Best Practice Guide](#), which can be met by Smart Meters or others, and is widely supported by the industry including DNSPs and metering providers.

- (b) What are stakeholders' views on alternative devices enabling benefits? What are the pros and cons of these alternative devices?

While meters are the only devices recognised for settlement, the regulatory framework should regulate meters. If home energy management systems or smart inverters are recognised in future for settlement, then they should also be covered by the proposed regulatory framework.

Q2 PENETRATION OF SMART METERS REQUIRED TO REALISE BENEFITS

- (a) Do stakeholders agree that a higher penetration of smart meters is likely required to more fully realise the benefits of smart meters? If so, why? In no, why not?

Yes. The data recorded and made available to all authorised parties is also critical, eg the ability to get increased data or granularity (at a cost).

- (b) Do stakeholders have any feedback on the level of smart meter penetration required for specific benefits? Or to optimise all benefits?

Greater than 75% to make it standard rather than the exception. Note that tariff reform which leads to more complicated pricing structures (eg TOU) is not supported by consumers. Consumers want greater simplicity and transparency.

Q3 TO REACH A CRITICAL MASS IN A TIMELY MANNER, OPTIONS TO ACCELERATE THE ROLLOUT SHOULD BE CONSIDERED

- (a) Do you consider that the rollout of smart meters should be accelerated? Please provide details of why or why not.

Only after consumers are given free access to the data. Otherwise, the consumers are bearing the cost for negligible benefit.

- (b) What are the merits, costs, and benefits of each option? Is there a particular option which would be the most appropriate in providing a timely, cost effective, safe, and equitable rollout of smart meters?

Enforceable targets of penetration as a % of fleet that increase YoY for each DNSP/Retailer/MC would be the simplest. This allows the market and individual entities to decide how best to achieve it.

- (c) How would each of these options for rolling out smart meters impact the cost profiles of smart meters?

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- (d) Are there options that you consider would better provide a timely, cost-effective, safe and equitable rollout of smart meters?

See above.

Q4 OPTIONS TO ASSIST IN ALIGNING INCENTIVES

- (a) What are the costs and benefits of each option? Is there a particular option which would best align incentives for stakeholders?

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- (b) Are there other options that you consider would better align incentives

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Q5 THE CURRENT MINIMUM SERVICE SPECIFICATIONS ENABLE THE REQUIRED SERVICES TO BE PROVIDED

- (a) Do you agree with the Commission's preliminary position that the minimum service specification and physical requirements of the meter are sufficient? If not, what are the specific changes required?

It is unclear whether the AEMC has considered whether smart meters should be capable of accepting instructions for Dynamic Operating Envelopes and whether they should be capable of communicating using a protocol compliant with IEEE 2030.5. We would be keen to understand the AEMC's thinking in this regard.

In 2020 the South Australian (SA) Department for Energy and Mining (DEM) introduced new regulations requiring that all new or replacement meters must be multi-element and all new distributed energy resources (DER) connecting to the SA Power Networks grid must utilise a multi-element meter.

It would be helpful for the AEMC to state a position as to whether the ability to remotely disconnect and reconnect separately wired DER circuits should be a minimum capability. Even though jurisdictions can ultimately make their own decision about this, some guidance at the national level would assist. It would be less than optimal for some jurisdictions to use multi-element smart meters while others mandate use of dynamic customer connections for DER, using an application programming interface (API) consistent with the IEEE 2030.5 standard for communications protocols. It would be helpful for the AEMC to review the usefulness of the SA reforms in relation to multi-element meters and whether this approach should be considered elsewhere.

The CEC's view is that regulators should require capabilities rather than mandating specific technologies. If dynamic customer connections can be achieved using inverters communicating with DNSPs' APIs this would be a superior solution to mandating the use of multi-element meters. Dynamic customer connections will have the capability to support dynamic operating envelopes whereas a multi-element meter will be limited to a simple disconnect and reconnect function.

- (b) Are there changes to the minimum service specifications, or elsewhere in Chapter 7 of the NER, required to enable new services and innovation?

It is unclear why, in future, all inverters will be required to be capable of communicating using a protocol compliant with IEEE 2030.5, but smart meters will not. It means that the device that acts as the gateway between the grid and the home will be significantly dumber than the devices behind the meter. It would be helpful if the AEMC could indicate whether this is a deliberate design decision and, if so, the rationale and thinking behind it.

- (c) What is the most cost-effective way to support electrical safety outcomes, like neutral integrity? Would enabling data access for DNSPs or requiring smart meters to physically provide the service, such as via an alarm within the meter, achieve this?

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- (d) Do you agree smart meters provide the most efficient means for DNSPs to improve the visibility of their low voltage networks? Why, or why not? What would alternatives for network monitoring be, and would any of these alternatives be more efficient?

No. The simplest way to achieve this is through mandating the [DER Visibility and Monitoring Best Practice Guide](#), which can be met by Smart Meters or others, and is widely supported by the industry including DNSPs and metering providers

- (e) Can smart meters be used to provide an effective solution to emerging system issues?

No. The energy transition is being driven by the increasing uptake of DER. Smart Meters are unable to address these issues and changes effectively because:

- They are not able to efficiently manage the complex variety of different DER
- They are not owned or controlled by the consumer, who has purchase the DER and has the greatest stake in how their DER is operated

Smart meters are important to provide better data to DNSPs and energy retailers, but they are incompatible with all of the other DER management requirements for Grid 2.0.

Q6 ENABLING APPROPRIATE ACCESS TO DATA FROM METERS IS KEY TO UNLOCKING BENEFITS FOR CONSUMERS AND END USERS

- (a) Do you agree there is a need to develop a framework for power quality data access and exchange? Why or why not?

Yes. DNSPs should have access to voltage data from meters for all the reasons outlined in the Directions Paper. All of this data also needs to be available to all other authorised participants. Where DNSPs “hoard” the data, innovation and customer service is stifled..

- (b) Besides DNSPs, which other market participants or third parties may reasonably require access to power quality data under an exchange framework? What are the use cases and benefits that this data can offer?

The following types of organisations for either a) anonymised data, or b) with explicit consumer permission for all data including personally identifiable:

- Grid services companies eg GridCube
- Consumer service companies eg Solar Analytics
- Research institutions, eg UNSWnivers

- (c) Do you have any views on whether the provision of power quality data should be standardised? If so, what should the Commission take into consideration?

It should be standardised, with the standard data formatting set in the National Electricity Rules. Refer to [DER Visibility and Monitoring Best Practice Guide](#).

- (d) Do you consider the current framework is meeting consumers' demand for energy data (billing and non-billing data), and if not, what changes would be required? Is there data that consumers would benefit from accessing that CDR will not enable?

Customers should have access to their data, and it should be easy for them to assign access to their data to third parties and service providers, such as aggregators. Electricity retailers should be prevented from obstructing such requests. This data should be able to be received by the service providers in an automated near real time manner, with a fully online digital sign up process. This would require the electricity retailer or Meter data providers to provide secure access to data via an application programming interface (API).

Q7 FEEDBACK ON THE INITIAL OPTIONS FOR DATA ACCESS THAT THE COMMISSION HAS PRESENTED

- (a) What are the costs and benefits of a centralised organisation providing all metering data? Is there value in exploring this option further? (e.g. high prescription of data management)

Our view is that a central run organisation would be the most efficient and cost effective.

- (b) What are the costs and benefits of minimum content requirements for contracts and agreements for data access to provide standardisation? Would such an approach address issues of negotiation, consistency and price of data?

There should be a standard set of data access contracts and prices (another reason for a central government run organisation). Specifically:

- Standard data should be free of charge, ie same data set and access as provided to energy retailers
 - Agreed cost for 5 min real time data set
 - Agreed cost for other commonly requested data sets
- (c) What are the costs and benefits of developing an exchange architecture to minimise one-to-many interfaces and negotiations? Could B2B be utilised to serve this function? Is there value in exploring a new architecture such as an API-based hub and spoke model?

Support this being run by a central organisation. API is the only sensible approach.

- (d) What are the costs and benefits of a negotiate-arbitrate structure to enable data access for metering? Is there value in exploring this option further? (e.g. coverage tests or non-prescriptive pricing principles).

Most request should be free, standard and on-line. Reducing friction reduces cost, time and abriers.

- (e) Are there any specific options or components the Commission should consider?

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Q8: A HIGHER PENETRATION OF SMART METERS WILL ENABLE MORE SERVICES TO BE PROVIDED MORE EFFICIENTLY

- (a) Are there other potential use cases that third parties can offer at different penetrations of smart meters? What else is required to enable these use cases?

Local access to real time data (rather than cloud-based access to billing data three days later) will be important to enable other use cases.

- (b) Noting recommendations in incentives and the rollout, are there other considerations for economies of scale in current and emerging service models?

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Q9: IMPROVING CUSTOMERS' EXPERIENCE

- (a) Do you have any feedback on the proposal to require retailers to provide information to their customers when a smart meter is being installed? Is the proposed information adequate, or should any changes be made?

Support this proposal. Making this information available through the data portal would also allow innovative companies to offer more customers services.

- (b) Should an independent party provide information on smart meters for customers? If so, how should this be implemented?

There would be value in having an independent organisation able to respond to customer enquiries regarding meters.

- (c) Should retailers be required to install a smart meter when requested by a customer, for any reason? Are there any unintended consequences which may arise from such an approach?

Yes, at no direct cost to the customer. Exceptions where the meter is due to be replaced as part of a meter rollout within the next 12 months.

Q10: REDUCING DELAYS IN METER REPLACEMENT

- (a) Do you have any feedback on the proposed changes to the meter malfunction process?

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- (b) Are there any practicable mechanisms to address remediation issues that can prevent a smart meter from being installed?

Consumers should not be directly charged. This includes additional cost at more difficult locations, eg remote, asbestos etc. These costs should be smeared over all consumers.

Q11: MEASURES THAT COULD SUPPORT MORE EFFICIENT DEPLOYMENT OF SMART METERS

- (a) Do you have any feedback on the proposal to reduce the number of notices for retailer led rollouts to one?

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- (b) What are your views on the opt-out provision for retailer-led rollouts? Should the opt-out provision be removed or retained, and why?

Opt out should be removed, however consumers should have to opt-in to any changes in their energy tariff. This is important as a future resident at that address may want a smart meter, and it is inefficient to do a separate truck rol.

- (c) Are there solutions which you consider will help to simplify and improve meter replacement in multi-occupancy premises? Should a one-in-all-in approach be considered further?

One-in-all-in makes sense (see above).

Q12: FEEDBACK ON OTHER INSTALLATION ISSUES

- (a) Do you have any feedback on any of the other installation issues raised by stakeholders? Are there any other installation issues the Commission should also consider?

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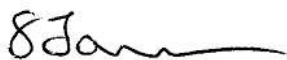
Q13: IMPROVEMENTS TO ROLES AND RESPONSIBILITIES

- (a) Are there any changes to roles and responsibilities that the Commission should consider under this review? If so, what are those changes, and what would be the benefit of those changes?

One of the most significant barriers to better utilisation of smart meter data is the power exerted by electricity retailers regarding data access. Access to the data from smart meters should not be dependent on electricity retailers' cooperation. The framework for data access should be regulated.

The current framework for metering makes the energy retailer the gatekeeper for the smart meter and its data. A customer or their service provider can only access this data via their electricity retailer and only in the timeframe and format determined by the retailer. Electricity retailers are conflicted in this role as they have a financial interest in preventing release of data to third parties where that could threaten their business model.

Regards



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