Questions on the Consultancy Paper - Enabling Mass Participation in the Electricity Market 30 May 2017

For question or clarifications, please contact me on 0211567486, or glassd7@gmail.com

David Glass
Independent Electrical Engineer/ Student

This consultation paper is needed in the NZ market. I cannot create a robust reply to this report due to work obligations. Open access is not required but the benefits of creating a good regulatory model for open access are many. Participant types are clear but might need renaming to better reflex the actual participants. A clear and responsive model including only those participants directly owning connected assets, or their representatives. Industry service providers are included in the Act. Clarifications are needed, for third parties in relation, to the current Commerce Commission's regulatory monitoring of network companies. An increase in monitoring costs will occur as complicated business relationships develop. Broad definitions used in current ring-fencing might need to become specific activities.

There are points, in the report, that should have been clarified by the EA. Where statements have been created as springboards for discussions. Seemingly, baseless and amount to rumours. It is a pity, the report lacks of technical and regulatory depth. Too many of the EA's consultation papers are consistently so. Thought this paper is better than others, for example the DPPA consultancy paper, it seems to rely on superficial information, e.g. directing us to an advertising webpage containing no actual details on the process of vector's PPA, or P2Power (a retailer, not an example of Peer to Peer trading), and importantly the reconciliation processes.
There are some great findings from EcoGrid and the European Commission. Discussion should be placed on how business processes interact with the regulations. Most of the business processes are not original or business sensitive.
Here is an example of a statement;
Distributors mentioned in 4.17, a reluctant to make greater use of competition…. from using third parties…be reluctant to adopt an unfamiliar or unproven approach.
What research or data are you using in this statement? It would be interesting to read. Where are the papers? Is this anecdotal? What are the causes of the reluctance? Does it take time to change and adopt different business models? Have network companies stated not wanting to change? A quick survey of the jobs advertised by network companies and third parties shows staff are being hired to adopt these changes.

Commented [DG1]: 4.17 However, distributors might be reluctant to make greater use of competition to more efficiently supply the network service. For example obtaining network support from third parties is currently not common practice for distributors, and some distributors may be reluctant to adopt an unfamiliar or unproven approach.

Metering data is an important part of how technology can improve the participation. It is a pity a specific question has not been asked. Data ownership and privacy of information are important aspects that are not covered in the data and data exchange work programmes.

The objective in relation to access to AMI data is to "ensure that access to AMI data is provided in a manner that promotes competition in, reliable supply by, and the efficient operation of, the electricity industry for the long-term benefit of consumers." AMI Forum briefing paper 2011

It seems little or no action has occurred from the AMI forum in 2011 or implementation of the excellent report into HAN (Home Area Network or HEM) or the Advanced metering Policy in 2008

(Electricity Commission, Te Komihana Hiko). I recommend the EA read these documents. They have produced some excellent policies that could, and can allow Multi-trading relationships, 5 min TOUs, etc.

The capability of smart meters is much larger than is currently used. Clear targets to 'workably competitive' MEP market and their participants could realise aspects like real-time, 5 min samplings, PPAs and demand responses. These are as important as getting network companies ready for PPA and virtual networks. Maybe it is time to relook at consumer allocated MEPs, to allow consumers a better view at the choices available. Upgrading the meters coding would allow much greater versatility for the; consumer, network, third parties and reconciliation.

Network companies have the infrastructure to upload this information from smart meters to improve their services and create smart grids, including real time demand responses. Retailers can't access accurate data within a good timeframe. Few small or medium sized consumers can practically access their usage data. All these point to less 'workably competitive models', and impede the speed that new technologies can be adopted. Not to mention a structural problem causing non-compliance with the Privacy Act 1993.

Third parties supplying consumers with demand response and Peer markets want access to this data. The cost of infrastructure to ensure this securely and reliability could be quite large and slow to initiate, even for third parties. But this is not in my expertise. How have other sectors dealt with this successfully?

Ring-fencing has been mentioned in this consultation paper. The crown has already decided what is to be ring-fenced in law. The government at that time decided not to further ring-fence network companies and network assets. The EA can advise the Minister on further vertical and horizontal separation, but robust research is scarce on benefits. Some ideological economic papers have been produced but lack actual robust evidence. If any further discussion should occur, it should be nationally staged, and not continually attempted, via a back door, with no proof of it actually working. The adoption of Ring-fenced Distribution Network Operator (DNO) model also means regulatory and business model changes.

The Commerce Commission acknowledges the current system of might not create the incentives for a 'workably competitive' distribution market. A further review into better measurement might allow fast adoption of the disruptive technologies and allow third parties to participate. Changing from the WAPC to a revenue cap will not work for to increase adoption of disruptive technologies. Other simple regulatory tools might.

Thank you,
David Glass

Q1. What is your view of the potential competition, reliability and efficiency benefits of more participation?

Benefits of good regulation

1. Increase in network and grid reliability, and a reduction in COTs and CODs.
2. All participants can make gains from mass participation when using a diverse range of reconciliation models. Few, if any, changes in market regulation are needed but large changes in the reconciliation process are needed.
3. Using multiple models allows the participants and consumers to allocate risk and costs in different ways, rather than by the current regulatory participant.
4. With the inclusion of certain models, the larger rate of return on investments can mean acceptance regulate the use of more expensive generation, like environmental responsible or new technologies, e.g. common earth solar or CHDs. Fulfilling national goals.

5. Faster adoption of electric vehicles (EVs).

Benefits of bad regulation

6. Lack of research doesn't allow regulation to contribute in a meaningful way towards competition, reliability and efficiencies of a mass participation market. This results in benefits for a few, a slow uptake and penetration and a nationally detrimental actions, e.g. Unison's retail charges.
7. That capital will be invested in inefficient Peer models that are also detrimental to prosumers.
8. If unclear and/or forced risk bearing regulations continue to occur or are created, an increase in expensive litigation will also decrease efficiency and competition. Consumers will be locked out, due to the expense, and market dominant commercial interests will lessen the open and level playing field.

Q2. What is your view of the opportunities to promote competition and more participation in the electricity industry?

1. Clear and fair playing field for all participants including small producers.
2. A choice of non-market activities for SSDG and DG.
3. A level playing field for retailers, removal of incumbency, etc.
4. Clear, accessible and simple metering and usage information
5. Nationally goals meet for reductions in CO2, EVs and renewable technologies adoption
6. Greater Electric Vehicle uptake
7. Flexible non-ICP specific power usage.

Q3. What other issues might inhibit efficient mass participation? Please provide your reasons.

1. Reconciliation methods. Reconciliation an important part of the market. The cost of reconciliation is affected by time and the amount of processes to allow reconciliation. With new technology, new and efficient methods can be used, e.g. block chain, n-layer and direct reconciliation with ICPs, national level reconciliation, etc.
2. Lack of research and data about all the disruptive models used, and whether they can be applied to in NZ. Not just a model in one states in the USA. The EU, amongst others have provided detailed information on large scale smart grid experiments, EcoGrid, etc.
3. Clean up and finish current problems around metering information, MEPs and incumbency of major retailers.
4. Creation of a limited level playing field. Businesses are given opportunities greater than consumers. Consumer have many reasons to want to participate. Donating power to their children's school or child's university flat, a charity, etc. These don't need to be brokered by a business and adding a cost to add further disincentives for participation. Third parties can provide services to enable distributed generation. They can also make things easier to participate and offer to bear different levels of risk.
5. The EA does nothing. The past papers and reports of the Electricity Commission and EA show good information and a lack of action. Rather than being ready for the smart grid and the PPA in 2009, we are in 2017 revisiting old concepts.

Q4. What is your view of the opportunities for network businesses to obtain external help to provide aspects of the network service using competition or market mechanisms?

1. Network companies are doing a good job of external contracting. There are areas where structures are not developed for adopting mass participation, such as information on network zoning for line charges.

2. Network companies could be more proactive in offering ACOD opportunities. Rather than the default setting of upgrading a network asset, a public offer to interested parties (ACODs) could be offered at congestion points for producers/ smart technology ownership. Congestion points are web published and can be a point of interest for third parties in supplying network assets. These could be offered to consumers encouraging them to provide generation for local industrial loads, etc. Maybe an open, workably competitive market.

Q6. What is your view on whether open access is required and what would be the elements for an effective open access framework?

1. Compliance with New Zealand legislation, e.g. Privacy Act 1996, Contract Law
2. Easily obtained information on clear and simple processes for entry and exit into the market.
3. Open tendering for opportunities.

Q7. How effective are the existing arrangements for open access? What are the problems?

1. Reconciliation process has too many and too slow exchanges between and thus internally in businesses. This can be a source of expensive information and a point of where mistakes are made.
2. Dispute resolution is not clear and not commonly known. Not many people know about Utilities Disputes Ltd, Rulings Board, etc. The Rulings Board process and scope can be improved. Guides to these and external disputes processes for electricity users and participants would encourage fast, cheap and clear resolutions.
3. The ACOTs and ACODs opportunities are not available for tendering. A reliance on network companies dealing with large scale commercial interests.
4. The default UoSA seems a good open access system. I will only talk about a distribution network, as the grid operator is not likely to be approached by the listed examples; a large commercial business, a property developer, or a generator connected to the distribution network. They can only be denied for unsafe connections or debts previously owed. These seem appropriate. Are there other ways to legally or by-other-means deny access to a distribution network?
5. GXP Retailer incumbencies.
6. To build on an analogy used in the report. A regulatory system reliant on businesses being a gate keeper will not provide open access. They produce partial participation, at a higher cost and on their terms. Should sponsored players be the only ones to play? Some players like to seriously play, but in bare feet and long beards, whilst others just want a social kick around in the latest shoes. In an open access anyone, who is safe, can play and can enjoy playing. The danger is that the current situation continues and only a few sponsored players are let in to play on a level field.

Q8. What type of distributor behaviours and outcomes should the Authority focus on to understand whether changes are required to support open access?

1. The creation of processes for clear lines costing between producers and users within a distribution network, e.g. zoning, ACODs, congestion points
2. Increase in HAN and real-time metering information. Signalling for demand response and generation as part of internal network companies processes. The network companies to expand the meter data retrieval and reply.

3. This is for MEPs rather than Network companies. Smart meters. They have a larger capacity to allow demand response that is not being used currently. The meters can have their coding ungraded.
4. adoption of information processes for open access
5. Extra charges for DGs or their retailer agents.
6. Setting of safety requirements for DG connection. NZ Standards set the requirements. This is an external organisation. The requirements can be contested.

Q9. What changes to existing arrangements might be required to enable peer-to-peer electricity exchange?

1. Peer to peer trading can exist at the moment. What should be thought about is how to make this efficient and most beneficial to all participants. The EA can be a leader and provide research and pathways for participants to develop these. The EA can widen its horizon, with newer models and including non-market models.

2. The EA looks at possible changes to the reconciliation process. One possible change could see ICPs to become reconciliation participants, with limited reconciliation responsibilities. New technology allows this and would allow multiple trading relationships to occur.

3. Use of real time metering and demand response. The EcoGrid found that 5 minute TOU was enough to provide demand response and Peer market information.

Q10. What are the costs and the benefits of enabling peer-to-peer electricity exchange?

The costs and benefits depend on the models used. Nationally, it is important to increase the use of common-earth solar, EVs and other SSDGs. DG increases the reliability of the network and can reduce the cost of electricity to the users. Users will have a variety of choices on how they want to participate.

If a less efficient model is allowed to be maintained by the EA, low uptake and higher prices for consumers will occur. Peer to peer will always be a small supplier and EVs will not be a network battery option, until another disruptive technology occurs. Few choices will be available and they will be expensive. Larger amounts of regulation will be created to negate strong market positions.

Q11. What is your view of the possibility for, and impact of, any current or future blurring of participant type? What are your reasons?

We have to look at the idea of participant types. They are a part of the crown's separation of the electricity market. Separation creates restrictions on the participant's actions. Participation types are ring-fencing by another name. Each type was created to exclude some co-participation in certain aspects of The Act. This is the current system where industry participants are separated for industry service providers.
What are the participants? To build on the game analogy given in the consultancy paper, who actually participates in the game are; the players, referee, sponsors, gamblers, tv viewers, shoe and uniform makers, etc. Only the players directly affect the results of the game. They might be paid to let a goal through but that is the player's decision and responsibility. The EA investigates the player and an outside agency, like the Serious Fraud office, investigates the rest. For this simple reason the direct participation types work. Someone has to be directly responsible to the referee. This shifts the non-participants actions to a more suitable referee and reduces the costs to the EA.
A different system could be created but must have in its system, a separation in the spirit of the Act.

Renaming or correct naming of the types could clarify more registration, e.g. ‘Retailer’ to ‘Aggregator’. This makes it easier to for participants to register and carry out the responsibilities.
There might need to be clarification on financial investments between participation types, e.g. where a SSDG owner also owns shares in a community-owned network company.
Commerce Commission’s (CC) monitoring of excess profit should be be extended to the third parties that support network companies. Third parties can become dominant in supplying services for network companies. This is likely to lead to hidden excessive profit-making practices that the CC was designed to combat.

Q15. Would the functioning of the market for hedges and PPAs and the availability of finance be improved if there were greater transparency of long-term prices and greater standardisation of terms and conditions for long-term contracts?

Long term contracts are the realm of business. The EA should not interfere unless market dominant behaviour occurs. Access to guides and examples would be helpful for small participants entering the market. But standardisation will lead to less flexibility in the market.

Thank you for your time,
David Glass