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ENERGETIC COMMUNITIES
SOWING A COMMON THREAD

Energetic Communities Response to the Energy Security Board Post 2025 Market Design Consultation Paper (September 2020)

Introduction

Energetic Communities Association Incorporated (ECAI) thanks the Energy Security Board for the opportunity to submit to the *Post 2025 Market Design Consultation Paper*. We would like to acknowledge the ESB's engagement so far with the consumer reference group, particularly giving the opportunity to be involved with such a large range of consumer advocacy organisations. While this submission supports our contribution via the consumer reference group, we see those consultations as a priority, as they are able to respond more rapidly to changing in thinking as they progress.

We consider the two-sided market (2SM) and Distributed Energy Resources (DER) integration as having the greatest potential to impact the lives of consumers and achieve emission reductions. Without proactive and progressive planning for consumer interests in the transition, the current changes we are seeing, including some behaviours of utilities, will slow down the fast and fair transition. As such, this submission focuses on the 2SM workstream of the *Post 2025 Market Design Consultation Paper*.

Affordability and decarbonisation must be the two key outcomes of the Post 2025 Market Design (P2025)!

ECAI strongly supports a market design that will facilitate the energy system reaching zero carbon whether through increased integration and utilisation of DER or larger scale renewable energy. This presents both risks and opportunities. The current National Electricity Rules (NER) limit small consumers' ability to participate directly (or indirectly through third parties such as aggregators) in a range of markets that could reward or value the shifting of load or generation, such as the wholesale market, frequency control and ancillary services (FCAS), emergency services or network support. A new approach is required to enable the energy system to make best use of the carbon and end-user cost reduction opportunities presented by DER.

DER refers to technologies such as storage, electric vehicles (EVs) and smart control and digital communication devices. DER increases the opportunities for consumers to vary their demand in response to incentives, and trade energy either locally or through the wholesale market. The rollout of smart meters further allows cost reflective consumption tariffs which aim to enable more small consumers to shift their demand. Most of the opportunity, however, is limited to changing patterns of demand and generation. DER, however, offers greater opportunities though grid services, such as voltage and frequency control.

The electricity grid is changing and is expected to continue to do so, especially with the increased amount of DER owned by small customers and households. While market design needs to be mindful of the technical and economic needs and considerations, the

needs of and impacts on small end users, including households, small business and community organisations, regardless of whether they own or access DER, needs to be front and centre of the market design. If poorly designed or lacking fit for purpose consumer protections, the evolution of the market, new market models, products and services all risk poorer outcomes for some consumers, particularly disengaged and low-income consumers. As such, consumer interests and protections need to be included in the design from the start, and not addressed as an afterthought.

Many stakeholders often implicitly or explicitly call for or assume that end-users should engage with the market more to get the best outcomes for themselves or for the market to be more economically efficient. However, for a number of reasons, such as asymmetry of information, complexity, trust, personal circumstances, competing priorities, self-confidence for example, many if not most end-users, do not actively engage in the energy sector or market any more than the minimum required to access this essential service. The perceived end goal of competition should not be used to force households to engage. That is, competition is a tool to achieve customer outcomes, rather than an end in itself. Customers should be allowed to engage insofar as they wish without being left behind.

Planning needs to occur proactively to leverage DER to future proof the grid, not in response to critical events, such as heat waves, or short-term behaviour changes from the increasing number of DER owners.

About Energetic Communities Association

Energetic Communities Association is a state-wide association that aims to represent the interests of households, communities, and not for profit organisations working in the social, environment and community sectors, and to promote and develop community owned renewable energy. We aim to be a leading force in building social change and economic wellbeing for all household and not-for-profit energy consumers. We bring experience of engaging with complex regulatory processes, and we have excellent connections with other Queensland based consumer advocates.

Key Recommendations

- *Establish a clear vision, objectives and principles.*
- *Update the NEO to include affordability and decarbonisation.*
- *Design with the consumers interests at front and centre, and embed equity and fairness by going beyond just the technologies and consider consumer agency and preferences, with a monitoring and review process.*
- *Investigate and analyse a broader bottom-up architecture model than a top down approach with a single platform.*
- *Incentivise social enterprise models of energy businesses.*

Vision, Principles and Objectives

It is unclear to ECAI exactly what the P2025 project is aiming to achieve, nor how far into the world of two-sided markets the sector needs to move. We have provided in our introduction some context of the current situation as we see it, but feel there needs to be some clarity around what the 2SM and DER Integration are trying to achieve in regard to the broader P2025 market outcomes. The ESB should provide some clarity as to the vision, principles and objectives of the P2025 project. The consultation paper does not give any specific objectives, but only suggests that outcomes should be consistent with

the objectives set out in the Finkel Review, and to take into account the objectives of Australian Energy Market Agreement (AEMA) (which includes GHG emissions). However, the AEMA is no longer fit for purpose itself! It lists to "*further increase the penetration of natural gas*" as an objective, and should itself be updated (as recommended by the Finkel Review) to the current real-world situation and have objectives like this removed.

We also refer the ESB to the *New Energy Compact* (2020). We know the ESB is well aware of the New Energy Compact and the sector wide process to develop the compact, but nonetheless wish to encourage the ESB to use the New Energy Compact as a starting point, as it has been designed to be customer centric, to ensure reform is future focused and to be used by decision makers to guide policy and reform for an inclusive, affordable, dependable and clean energy system.

Some Vision, Principles and Objectives for the two-sided and DER integration market could include:

Vision

- *The energy system is 100% renewable by 2030*
- *Consumers access the energy they need affordably and sustainably*
- *The energy system is economically efficient, fair, inclusive and sustainable*

Objectives

- *Increase DER penetration and integration, and access to DER services (including both ownership and non-ownership models)*
- *A fast and fair transition*
    - *Reduction in greenhouse gas emissions, leading to 100% renewables by 2030, and a net zero carbon energy sector by 2050.*
- *Third parties, agents, traders and aggregators to interface with markets and consumers without facing unnecessary barriers.*
- *Consumer protections for all consumers, regardless of their level of participation or DER ownership or access.*
    - *Consumers can trust that these protections are in place, are fair and effective.*
- *Consumers can trust that the sector serves the interests of customers.*

Principles

- *All consumers should have the opportunity to participate in the two-sided market if they wish to, but are not expected to, nor are they penalised or disadvantaged if they choose not to or are unable to participate.*
- *System is designed to enable better outcomes for both consumers and the environment.*
- *Prosumers to realise the value of their DER where it contributes to the ability of the system to meet end-users needs.*
- *Participation directly in a range of markets will reward or value the shifting of load or generation in the wholesale market, ancillary services, emergency services or network support*

- *Long-term (2025 and beyond) solutions should be prioritised over short term workarounds*
- *Risk should sit with those best placed to manage it.*
- *Costs of the energy services should be recovered from*
    - *beneficiaries (where the costs and beneficiaries can be identified) or*
    - *those causing the impact (where primary beneficiaries are difficult to identify or costs or benefits are difficult to quantify)*

Consumer Impacts and Protections

Much of the emphasis in the P2025 process to date has been on the technical, market and economic considerations, with many stakeholders viewing energy as a commodity, when it is in fact an essential service (acknowledging some non-essential uses of energy). Consequently, the social or distributional impacts of energy policy or regulatory decisions, especially for low income and disadvantaged households, need to be embedded in the sector-wide design, i.e. not just in the market design, to be considered from the start and not simply as an add-on. Energy retailers and other sector businesses must be encouraged, or regulated if need be, to prioritise customer and community outcomes. For example, currently retailers do not reflect the structure of network tariffs in retail tariffs, which is seen as a positive in that it "allows" competitive offers. However, this is at the expense of customers, as it denies customers the ability to respond to network tariffs, which also leads to economic inefficiency, raising costs for everyone.

There have been some good innovative approaches from the social enterprise sector and that this should be encouraged so that this sector grows as well as demonstrating good practice to other public and private providers. An example of how retailers and aggregators could prioritise customer and community outcomes is Enova, who encourages solar owners to donate solar credits to low income customers. Similarly, Powershop and Energy Locals donate some of their profits to support community energy and other charities. The P2025 design should encourage such behaviours.

In addition, we strongly encourage the ESB to establish a dedicated workstream on consumer impacts and protections, ensuring that no one is left behind or disadvantaged through the broader P2025 market development. This should be supported by funded consumer advocacy representatives in each workstream, including cross jurisdictional representation, especially with respect to consumer impacts of third parties and aggregators.

Consumer Protections

It is unclear how the current process will protect end-users from potential unscrupulous behaviours of some retailers and potentially third parties and aggregators. Consumer protections such as energy payment plans and debt payments are a last resort, and are more about debt collection than supporting households and businesses in need. Access to dispute resolution, hardship provision for example, do not work for embedded networks at the moment and so unlikely to do so with third parties and/or aggregators unless new human centred design principles are used in the market design. Consideration needs to be made of inclusion to ensure everyone can access essential energy and the prosumer or market benefits of DER regardless of their financial situation, behaviours, personal situation or other expressions of vulnerability. People should be able to readily obtain any help they need to access an essential energy supply or to interact with energy services. As such, retailers and third parties should automate concessions. This will likely require data sharing from the Federal government to the

states and territories, such as who holds concession cards. There would clearly need to be protections with respect to data access, but it may be possible for retailers to be directed to apply concessions, without accessing the personal data of customers beyond what they need to supply energy to the household or business.

This is particularly important in regional Queensland, where consumers only have Ergon to choose from as a retailer. Will aggregators and other third parties be owned by Ergon or the Queensland government and if and how will they be regulated? Trust is a big issue. If poor outcomes are experienced by consumers as the P2025 market evolves, this will only act to ensure trust levels remain low. The post 2025 market, 2SM and related processes need to take into account the risk for consumers. This is particularly relevant to consumers made vulnerable through other sectors such as food, transport, welfare or employment etc. (i.e. consumers are rarely vulnerable in the energy sector alone).

The Consumer Data Right

Data is increasingly important in a fast and fair transition, but also presents some risks if mis-used. The Consumer Data Right (CDR) is a competition and consumer reform that aims to allow consumers to require a company such as their energy retailer to share their data with an accredited service provider, such as a comparison site to get more tailored, competitive services. This aims to provide consumers with better choice, access, and control of their data, including how it is used and how it is disclosed. While we expect consumers to be passive in their engagement, we also expect aggregators and potentially other third parties to be accessing and using consumer data.

This will require the consent of consumers and may in fact involve data being held across a number of organisations. This brings up questions of how the data is being used by 2SM participants and will consumers trust third parties? Here we are referring to sensitive personal data, while accepting most energy related data is less sensitive, but could still be used by 2SM participants if they see customers may be looking at competitors, either retailers or DER providers. This can both increase cost to retailers (customer retention), while allowing larger retailers to use their market power to gain advantage over smaller retailers (PIAC 2020). We would support PIACs view to make more use of AEMO's role as a central gateway for energy data under the CDR in the future market.

Energy customers must have the right to access their own energy data in a format that is easy to interpret and use to make informed decisions, and for that access to be provided free of charge. Charging for data access should not form part of a business model (in an app for example). Further, the CDR should not lead to an expectation of greater engagement by consumers in the 2SM to access the best deals, nor the unnecessary sharing of personal or more sensitive data. Disadvantaged or vulnerable consumers who are likely to remain less engaged by choice or circumstance must not be penalised. An example could be a third party rejecting a low-income household from an offer because of their history (PIAC 2020). When consumers are asked to consent to the data sharing, all risks to the consumer must be clearly communicated.

The National Electricity Objective

We believe the current NEO is no longer fit-for-purpose and has been a missed opportunity for some time. For the post 2025 market design to really achieve some of the objectives listed above, the NEO must be updated to include affordability and decarbonisation of electricity. We are where we are in part because the NEO in its

current form does not facilitate the decarbonisation, affordability and equity outcomes needed. For example, the NEO lists price, but not affordability. Updating the NEO to include affordability and decarbonisation would mean that retailers, aggregators, communication and digital technology and metering companies participating in the 2SM would all be incentivised or regulated to innovate in ways that bring affordability and decarbonisation to all consumers. The poor track record of many retailers in the current less complex market suggests that many more customers will be worse off if the NEO isn't updated to be fit for purpose.

While the consultation paper refers to the objectives of both the Finkel Review (Finkel 2017) and the AEMA, only the NEO has the power to mandate the Australian Energy Market Commission (AEMC) to make rules with respect to affordability and decarbonisation for all rules. The final Finkle Report noted that the AER, AEMO and AEMC all argued against including any reference to environmental considerations in the NEO because "*the inclusion of such considerations would create multiple, potentially competing objectives*".[1] However, only the NEO has the power to mandate decarbonisation in the rules, rather than it being just an objective without a mandate. Further, the NEO already has multiple and competing objectives including that reducing price can be a competing objective to the multiple objectives of improved safety, reliability and security, which all must be balanced against the costs they entail. Including decarbonisation in the NEO would have the additional outcome of ensuring market bodies address *all* such competing objectives. It is our firm opinion that the ESB recommend the NEO be updated if it is serious about benefiting consumers, improving energy affordability and facilitating decarbonisation in this process (and is discussed later in this submission)

Queensland Specific Considerations

As consumer advocates, we consider there are specific concerns for Queensland consumers, in particular regional Queenslanders in the Ergon Distribution area. These consumers must use Ergon Retail as their retailer. The repeal of the non-reversion has had limited impact in affecting consumers' ability to go to other retailers. This won't change unless regional Queensland is opened to a truly contestable market. Consequently, does the 2SM mean that Queensland households and small businesses will be limited to either a state-owned aggregator or a subsidiary or Ergon Retail? Will this be regulated?

Queensland is also the jurisdiction with the highest penetration of solar and other DER (EQL 2020). Some parts of the state have significant curtailment of energy exports. The 2SM does present an opportunity of valuing both the energy and non-energy contribution of DER. It is unclear how this differs in intent to the recent rule change proposal on DER Integration (AEMC 2020) and what their relationship may be. We also agree with EQL (2020) that they already do much of what the P2025 process is investigating, such as the Peaksmart air-conditioning program in south east Queensland, but the level of export constraints, the expected increase in DER, exclusion of residential consumers in the

[1] https://www.energy.gov.au/sites/default/files/independent-review-future-nem-blueprint-for-the-future-2017.pdf

demand response mechanism, and missed opportunities, such as solar sponges, suggest significantly more could be done in Queensland. This in itself does not suggest the 2SM is the necessary response, but only that it is one option worth investigating.

In their original submission to the ESB's *Moving to a Two-Sided Market Discussion Paper,* Energy Queensland Limited *(*EQL, *2020),* point out that there has been little uptake of complex tariffs by customers. While we don't disagree, this may also be due to lack of engagement and customer awareness that this option exists. This may be the same for 2SM opportunities. That is, significant engagement and energy literacy programs, preferably provided by funded and trusted community organisations, may be needed for the opportunities to be fully realised. Customers who can't or won't engage should nonetheless not be penalised or left behind.

One of the consultation questions is around barriers to participation in demand management. As discussed below, renters and low-income households miss out because of the split incentive, up front capital, short tenancies, or lack of appropriate business models. Some states have white certificate schemes to enable those currently missing out and being left behind. As part of its Powering Queensland Plan (DEWS 2017), a previous election announcement by the Queensland government was for a *Demand Management Energy Efficiency Strategy (DME2)*. Our understanding is that the Queensland government was working on this, but it appears to have been dropped. In designing the market architecture and 2SM, consideration should be made on how to enable these schemes, especially in Queensland and other states without them, to assist low income households and renters to be able to access demand management and energy efficiency opportunities.

System Architecture

Energetic Communities strongly supports investigating a broader bottom-up architecture model than a top down approach with a single platform, with the ESB ensuring market reforms do not constrain future options. This obviously needs to be balanced against having too many options, making the market too complex and may lead to the fallacy of competition (where the competition isn't working for consumers, as there are too many choices with little difference, it's complex and confusing, there is lack of trust or marketing gives a false sense of difference or benefit). A bottom-up architecture would be more likely to handle localised constraints and facilitate grid services needs more efficiently, could facilitate local level aggregators, and make best use of options like community scale storage options, including community owned renewable energy (Roberts 2019).

Specific Response to Consultation Questions

TWO-SIDED MARKETS – MARKET DESIGN INITIATIVE E

What do you consider are the risks and opportunities of moving to a market with a significantly more active demand side over time? How can these risks be best managed?

Under the current regulations, increased DER can contribute to more variability in the energy wholesale market, increasing costs on the system that are ultimately borne by consumers. It can also have the opposite effect where solar reduces wholesale cost and has and overall downward impact on energy costs. A key opportunity is for increased economically efficient and transparent market design, that is, the system-wide benefits of

DER, such as increased low carbon generation, reduction in wholesale costs, and grid services such as frequency and voltage control, are all recognised and valued, and that prosumers have the right to receive financial benefits for services provided by the use of their DER, without relying on cross-subsidies or financial penalties being paid for by customers without. This in turn should reduce end-user costs for all consumers.

The market should be open and transparent, with consumers choosing from a range of new products and services that they can engage in directly and/or via energy providers and market intermediaries. However, there is a significant risk that locked out consumers will continue to miss out on the benefits of DER if their interests are not incorporated from the start. These is also the risk of unfair cross subsidies or confusing business models and offers. All jurisdictions should be encouraged to fund low income households to install DER. Energetic Communities encourages the ESB to review the parallel work on recommendation 6.6 of the Finkel review (Finkel 2018), on developing policies to support low income households access energy efficiency and DER. While not directly related to market design, the post-COVID economic recovery strategies of various jurisdictions present an opportunity for good practice and equitable economic development through funding households and small businesses most likely to benefit from such support. In considering their recommendations for programs to support low-income households participation in the P2025 market design, Energetic Communities refer the ESB to the principles presented by the Australia Institute, who published eight principles to achieve a more “just, sustainable and peaceful” society (TAI, 2020), of which the following are particularly relevant here:

- *Go households: Put purchasing power with households who are more likely to spend it*
- *Targets those most impacted by the crisis*
- *Targets useful projects that deliver co-benefits*
- *Targets regional disadvantage*

As given in the above principles, costs should be recovered from the beneficiaries (where costs and beneficiaries can be identified) or causers (where primary beneficiaries are difficult to identify or costs or benefits are difficult to quantify).

Another key risk is around complexity. The market is already complex, even for professionals working in the sector. Consumers cannot be expected to fully understand and participate. There is a risk that complexity will increase disengagement and poor outcomes for consumers engaging in the market, even though a third party if that third party does not have the customers interests at heart.

Energetic Communities supports the idea of embedding a review mechanism into the process. This could be a simple review panel, including funded consumer representatives, undertaking regular reviews as part of a phased implementation program. The panel should review the technical, economic, policy and consumer impacts and should be linked to the monitoring and review framework discussed later in this consultation. This should be deepened with a consumer impact assessment of options considered and implemented (not just total consumer impact but also distributional outcomes).

We do not agree that small consumers need to be scheduled, as they will in the most part be coordinated through third parties (retailers or aggregators). It is these third parties that would operate in the bottom-up architecture discussed above. Individual prosumers participating through third parties should also have the option to dynamically opt out from both demand and supply controls if their needs at any particular time can

outweigh their participation. For example, prosumers should be able to trade energy with each other via distribution level trading platforms (like deX, Reposit and PowerLedger), and not via a single top down platform. Conversely, having too many market participants presents the risk of being too complex, and may be easier for participants to behave against consumer interests. If we are, as expected, going to have increasingly more DER on the grid, the system architecture must enable the technologies, not waste opportunities through export limits, top down controls and economically inefficient outcomes.

What are the barriers preventing more active demand response and participation in a two-sided market? What are the barriers to participating in the wholesale central dispatch processes?

A major barrier for participation and benefit, often for those who need it the most, is the split incentive for renters, and the cost of participation requiring upfront investment in DER technology. Renters and low-income households are often left behind. Outside of Victoria, for example, few low-income households or rental properties have digital meters. Energy Queensland have gone some way to rectify this through its Energy Savvy Families program, but this is insufficient. Other opportunities such as smart technologies are simply not accessible to low income families or renters. Business models and system architecture needs to enable access to these technologies.

Communication can be a barrier for DER owners where that DER could be controlled by other participants, even if only under certain circumstances, which could be a poor business practice, or through providing necessary grid services. In the latter case, prosumers should be paid for those services (see submissions by ourselves and others to the recent DER rule change proposal[2]). The reasons why and what this means for prosumers and the rest of the system should also be clearly communicated. A recent example could be where battery owners received a message from Tesla stating they were taking control of their devices (Chirgwin 2020). Prosumers were understandably frustrated, which may lead to a lack of trust. Simple, clear, honest, straightforward and proactive communications would prevent this. Third parties and aggregators need to ensure they treat customers with respect and not intentionally or unintentionally hide such outcomes in contracts. We understand the value of such action from Tesla with regards to the benefits of grid services, but these must be communicated, with opt out options. The ESB has suggested that they expect such control events to be rare. This needs to be monitored and reported as part of the P2025 review process mentioned below. This may also be relevant to information presented on bills, including any credits due, as currently been consulted on by the AEMC[3].

In their original submission to the ESB's *Moving to a Two-Sided Market Discussion Paper*, Energy Queensland Limited (EQL 2020) suggest that behind the meter load and generation from DER will remain hidden without investment in separate metering (particularly to enable verification for wholesale market settlement purposes), would

[2] Not yet published, but will be published here https://www.aemc.gov.au/rule-changes/network-planning-and-access-distributed-energy-resources

[3] https://www.aemc.gov.au/rule-changes/bill-contents-and-billing-requirements

require independent metering, and that this would be economically prohibitive for the majority of end-users. However, the costs of metering are coming down with declining cost of information and communication technology (ICT) (Roberts 2019). It may be that the metering already forms part of the DER itself and may be absorbed in aggregator or other participants' costs if the value of the DER is monetized in the business model. There is also the argument that customers should not have to pay for their own data for an essential service. In practice, this may differ case by case, but it builds the case for staged implementation with a monitoring and review process. The Tesla example in the previous paragraph is a case in point, where a good technology with embedded monitoring and metering was used by the company to provide grid services, but with poor communication practice and therefore poor consumer outcomes.

Energy Queensland Limited (EQL 2020) also suggests "*that forecasting based on diversity in behaviour enables a reasonable estimation of behind the meter activity and is less costly to measure at the small end-user level. It is therefore unlikely that the proposal for a two-sided market will provide more granular information to resolve the issues AEMO is facing with respect to forecasting and operating a secure and reliable interconnected grid supporting the wholesale market*". We are unclear what this is based on. Behaviours are influenced by a number of factors, are not static and rarely fit a "model" behaviour. We would argue that dynamics in behaviour demand that a bottom-up architecture would lend itself to positive consumer outcomes by allowing aggregators to better manage those changes in behaviour.

There are also links to the Australian Consumer Law (ACL). The DER technology itself and its providers need to have consumers at front of mind. The technologies need to work (i.e. be of good quality) and be provided by organisations consumers trust. Chirgwin (2020) gives an example. If consumers are going to participate, either through being engaged themselves or through a third party, their investments need to be sound. The solar industry has codes of conduct, and there is currently a process for brokers and consultants to retailers to develop their own. Will this cover aggregators and other third parties?

Do you think any other near-term arrangements or changes to the market design can be explored in this workstream?

No Response

What measures should be deployed to drive consumer participation and engagement in two-sided market offerings, and what consumer protection frameworks should complement the design?

Energetic Communities questions the need to drive consumer participation (beyond consumers who may voluntarily elect to do so). This may only be a wording issue, but many, if not most, consumers only wish to have power when turning on a switch, and not feel the need to actively engage in the sector, let alone the market. Many consumers already find the market confusing, and a two-sided market presents a risk for consumers further disengaging. While the ESB may acknowledge that not all customers will want to participate, there may need to be codes of practice or other mechanisms to ensure retailers and third parties, such as aggregators, operate in ways that customers do not feel the need to participate unless they wish to.

That said, end-users who do wish to participate need to understand the market, its risks, and opportunities of different business models and technologies. Consumers not willing to directly participate and instead rely on third parties, such as aggregators, may need to

know who to trust and what's best for them. A consumer communications, education and engagement program will be needed. Due to lack of trust of market players, this would be best done by trusted community organisations, not governments, retailers or other market participants. This would be in line with Recommendation 38 of the Australian Competition and Consumer Commission (ACCC) pricing inquiry (ACCC 2018) that states:

> *"In addition to existing funding, the Australian Government and the relevant state or territory government should fund (to a value of $5 per household in each NEM region, or $43 million NEM-wide, per annum) a grant scheme for consumer and community organisations to provide targeted support to assist vulnerable consumers to improve energy literacy. This grant scheme should be modelled on the approach taken by the Queensland Council of Social Services in administering the Switched on Communities program. This targeted support will assist vulnerable consumers to participate in the retail electricity market and choose an offer that suits their circumstances."*

This recommendation becomes more important as the sector transforms with the P2025 market design, new participants, new business models and new technologies and therefore more complexity. This should be linked to monitoring of a progressive implementation (see next section). Information and tools that empower consumers to make decisions must be available, and be clear, transparent, in plain language and accessible (i.e. rather than relying on bills as the primary communications channel, businesses should communicate directly and appropriately with customers according to preferences and in ways that suit the information being communicated). This includes materials in multiple languages, formats and from trusted sources, all while ensuring those who don't engage aren't required to develop the energy literacy to protect themselves.

What might principles or assessment criteria contain to help assess whether it is timely and appropriate to progress through to more sophisticated levels of the arrangements?

We would like to see a progressive approach for delivering initiatives. This should include a monitoring and review framework to assess the impacts of each set of measures experienced by consumers before building further on these with additional reforms. This would enable customers to become comfortable, especially with new market participants such as third-party aggregators.

The ESB is considering combining the DER integration (below) and two-sided markets workstreams, or elements thereof. Do stakeholders have suggestions on how this should be done?

ECAI cannot see how the P2025 market design would work without merging the 2SM and DER integration workstreams. System design means that all workstreams should be integrated to some extent to understand how the different parts will interact and to reduce unforeseen adverse outcomes. For the 2SM to work to the benefit of all customers, DER Integration must be optimised to ensure economic efficiency and improve affordability, and to optimise decarbonisation. Furthermore, the preliminary

report for the *Independent Review into the National Electricity Market* (Finkel 2017) argued that energy and emissions reduction policies must be integrated:

> "*For both system security and affordability reasons, it is important that governments ensure energy and emissions reduction policies are integrated. The energy system needs to be able to adapt to changes in technology and in supply and demand that are stimulated by emissions reduction policies. Emissions reduction policies that are aligned with the operation of the electricity system will better support efficient investment decisions by consumers and in generation and network assets."*[4]

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