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## Energy Charter feedback - peer-to-peer

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Steve Bedwell To:  
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Hi Emma,

I'm writing to provide feedback on The Energy Charter. Firstly, it's great that as a group you're reaching out to the community to garner feedback. I hope you manage to reach a wide audience and get some valuable insight that will shape what I believe to be an exciting and extremely important transition for humanity and our planet; a sustainable, affordable and customer focused energy future.

I'm more than happy for this to be published on the Energy Charter website.

As highlighted in the introduction of the draft paper, we are moving towards a decentralised grid. The energy market is being disrupted from the inside out. Solar and battery storage is becoming cheaper and more pervasive. All the while electricity costs remain high. Regulation is not set up to make use of the increasing deployment of DERs. Incentives for those that invest in solar and battery storage to remain connected to the grid, either don't exist or are not sustainable long term.

I've thought about this for quite some time, and after research believe that many of the challenges could be addressed through an open market that allows direct peer-to-peer transaction and settlement of electricity across the regulated grid.

I'll provide my reasons in response to each of the charter principles.

### *Principle One – “We will put customers at the centre of our business and the energy system.”*

An electricity network that allows customers to buy and sell their energy peer-to-peer is a true embodiment of a customer centric system. A customer might simply want to buy and sell at the best price, or they might choose to donate their excess solar to their children's school or local community shelter. It gives the customer the control to decide and places them at the centre of the system.

### *Principal Two – “We will improve energy affordability for customers”*

*2.2 – Offer customers energy deals that best meet their needs, supported by effective tools and incentives for customers to manage their energy use and cost.*

A p2p electricity market would incentivise customers to use their energy wisely. For example someone with solar and battery storage might choose to conserve the energy they've stored during the day. Rather than leaving all the lights and appliances on and be wasteful, they can sell it back to the grid during the peak usage period for a good price.

*2.3 – Work cooperatively across the supply chain and with other stakeholders to put downward pressure on price over the short and long term.*

Blockchain technology is widely accepted as the technology of choice to enable p2p energy trading. This same technology can be applied across the value chain to unlock efficiencies, reducing costs across the board.

## *2.4 – Innovate to deliver competitive energy solutions for business and residential customers*

P2p would be a great differentiator for energy retailers that adopt it, increasing competition and driving down prices to all types of customers.

## *2.5 – Advocate on behalf of customers to improve energy affordability through engagement in regulatory and policy processes*

There are key regulatory and policy hurdles to enable p2p across the grid and unlock the cost savings to customers that will result. I think an organisation such as the Energy Charter can be instrumental in helping accelerate the necessary change.

### *Principal Three - We will provide energy safely, reliably and sustainably.*

#### *3.2 – Implement solutions across the supply chain:*

- a. that support energy connection, service and reliability that meets customers' needs.*
- b. to resolve service issues that impact customers and the community.*

Decentralised grids are more resilient than centralised ones. An example of this is in Puerto Rico where it took almost a full year to restore power after Hurricane Irma. The country is rethinking its energy grid towards DERs and energy storage, limiting single points of failure to ensure that the grid is more resilient to such events in the future. Which, as a result of climate change are becoming more frequent and severe.

P2p incentivises more deployment of DERs which in turn improve resiliency. The same data collected by the p2p platforms could also be used to help manage the network.

#### *3.3 – Facilitate new opportunities and technologies that support cleaner energy solutions*

P2p energy markets will encourage more adoption of solar and battery storage, without the cost to government of subsidies and mandated feed-in tariffs. Solar subsidies are in threat of being abolished. There is a real risk that growth of solar will see a significant slow down and actually causes prices to increase over the longer term. Introduction of p2p would help mitigate the reduction or axing of subsidies and improve the ROI for households investing in solar and battery technology.

### *Principal Four – We will improve the customer experience*

#### *4.1 – Enable customers to get fair outcomes regardless of their ability or desire to participate in the energy market.*

p2p energy markets would benefit everyone as they incentivise customers to remain connected to the grid, increasing competition and driving down the cost, even for those that choose not to or cannot participate.

#### *4.3 – Ensure that innovation and design in products and services, as well as communication platforms and tools are driven by customers' needs and preferences.*

The introduction of p2p would make energy more personal to the customer, increasing customer engagement and improving the products and services that are offered to them.

### *Principal Four – We will support customers in vulnerable circumstances*

*5.2 – Provide products and services that are tailored to customers in vulnerable circumstances and support them in getting back on track.*

P2p can help to support the most vulnerable or in need in our communities. As an example, customers could choose to donate some of their own proceeds from their excess generation. Alternatively, a fund could be set aside that autonomously and transparently collects a percentage of the energy transaction profits to assist these vulnerable customers. The underlying blockchain based trading platforms can be customised in limitless ways to support whatever model makes sense for the specific need in a low overhead, autonomous and transparent way.

Load defection is a real risk as costs of solar PV and storage decrease. Keeping customers connected to the grid and sharing the cost to maintain it protects those that are unable to invest in these technologies themselves from escalating costs of maintaining the grid.

I have a keen interest in seeing peer-to-peer energy trading become a reality sooner rather than later and I truly believe it to be an integral part of our energy future. I'd love to see Australia lead the way and demonstrate to the world that we can have a fair, customer centric, affordable and sustainable energy system. I look forward to following the Energy Charter and its initiatives.

Regards,  
Steve Bedwell