Power Ledger

Response to the Senate's Financial Technology and Regulatory Technology Inquiry

14 October 2019

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Power Ledger FinTech Submission

In Brief

Power Ledger welcomes the opportunity to contribute to the development of the Australian FinTech policy process. In the following pages, we address several of the key questions highlighted in the inquiry into *Financial Technology and Regulatory Technology*. While Power Ledger is a clean energy company, we use blockchain technology and have undertaken an Initial Coin Offering (***ICO***), which we believe to be relevant to this Inquiry.

It is expected that there are other submissions detailing academic and industry positions in more detail, but this submission is written with the aim of communicating what it is like to innovate in the Australian FinTech space. We believe our contribution to this inquiry is as much as an insider's perspective than anything else. Because of this, we have addressed some questions issues from the perspective of Power Ledger within the context of FinTech innovation in Australia.

About Power Ledger

Power Ledger is a Western Australian company, formed in May 2016, that uses blockchain technology to provide an alternative model for trading, reconciliation and settlement of energy and environmental commodity transactions. Our world-leading technology platform allows consumers with renewable energy such as solar and batteries to sell excess energy to their neighbours. Our ecosystem of applications also extends to offer Virtual Power Plant and distributed market optimisation mechanisms, aimed at empowering consumers and encouraging access to more reliable, renewable energy. The technology and business model were devised to support the transition of mature energy systems into dynamic, consumer-centric and renewable distributed energy markets.

The committee will inquire and report on the following matters:

a. **the size and scope of the opportunity for Australian consumers and business arising from financial technology (FinTech) and regulatory technology (RegTech);**

There is clearly a significant opportunity for Australian consumers and businesses arising from FinTech and RegTech. Precisely defining the size and scope of the opportunity is difficult at this stage as the impact of the technology is unprecedented and there are limited examples to draw from. Further, FinTech is evolving so rapidly that a prediction that appears solid at one point will be ridiculous six months later.

Two metrics may be useful in assessing the scope of the opportunity. The first is the influx of funding to the sector, which indicates the possibility of Australian products yet to be built. The second is the extent to which other countries have led the way in adopting FinTech, indicating the possibility of Australian customers yet to be found.

Significant investments have been made in FinTech. In 2018, a total of $58bn AUD was invested in 100 leading FinTech companies globally [1]. Over the same period, Australian investment was $600m AUD [2]. In the first half of 2019, $37.9bn USD has been raised globally - importantly, spread across 962 separate deals [3]. This capital has been sourced from large corporates, venture capital and retail investors. There are clearly many investors who see FinTech as a good place to invest.

Markets with more capital are at a significant advantage to capture market share.

Australia has a significant way to go before fully realising its potential for Fintech usage among consumers. In 2019 only 41 per cent of Sydney residents regularly used FinTech products [4]. FinTech encompasses everything from complex products currently only used by early adopters, to a simple banking app as has been offered by all major Australian banks for nearly a decade. This indicates that more than half of Australians have not even begun to explore even the most basic opportunities offered by FinTech to improve their lives.

The experiences of other countries highlight the potential here, 92 per cent of Hangzhou residents use FinTech regularly. In China more broadly, 98 per cent of smartphone owners use the devices for payment through FinTech platforms [5]. Paying by cash is rapidly becoming an outdated method [6]. This phenomenon is not unique to China, in sub-Saharan Africa and developing nations worldwide, mobile FinTech payment solutions have been commonplace for some time. M-Pesa, a cashless, bankless trading platform had 17 million Kenyan subscribers - 40 per cent of the population - back when Australian banks were first introducing their apps in 2011 [7]. Today, an equivalent of 48 per cent of Kenya's GDP is processed over M-Pesa and 93 per cent of the population use the service [8]. Closer to our shores, Indonesian FinTech provider GoPay processed $6.3bn USD in transactions last year [9]. Australia is being comprehensively outpaced by countries which many Australians would view as less developed than our own. Put bluntly, the average Australian tourist in Bali is less comfortable with FinTech than the man selling her coconuts on the beach.

Two things are clear - the world has been rapidly moving towards adoption of FinTech for a long time, and Australia has been very slow to adopt the technology. One can speculate on the reasons as to why Australia has been slow to make the change, but an end-user cannot adopt a piece of FinTech without that technology being made available to them. Similar to the investment position, we cannot assume that all users made the correct choice in adopting a particular piece of technology or that the opportunity was valuable to them, but there is a clear signal that in the right circumstances, consumers are happy to adopt FinTech.

Global trends indicate that both businesses and consumers see a strong opportunity in FinTech, shown by increasing investment in the sector and uptake of the technology. It can be seen that Australia is currently behind on both metrics, indicating that the opportunity in Australia is yet to be fully identified, let alone realised.

b. barriers to the uptake of new technologies in the financial sector;

According to the Australian FinTech industry itself, the major barriers for FinTech innovation are access to **talent**, access to **capital**, **demand** for FinTech services, government **policy** and clarity, and a supportive **environment** [10]. The experience of Power Ledger is one that relates directly to the innovation within Australia but sits both inside and outside the boundaries of the FinTech industry.

In Australia, the major factor is a **talent** pool shortage, with 50 per cent of FinTech leaders agree that Australia lacks experienced start-up and FinTech talent [10]. Australia's large expat base needs to be incentivised to return from London, New York or Singapore. FinTech is the most funded type of startup in Australia. However, this funding must be deployed on acquiring the right people. Talent development and attraction is central to any plan, with the complex nature of FinTech requiring highly trained software engineers, managers, and other roles.

In Power Ledger's experience, the ecosystem that Power Ledger operates within is somewhat different from the rest of Australia. Power Ledger operates in both the blockchain and energy spaces and so is not a pure FinTech business. However, some of the similar issues still apply. It has been challenging to find suitably qualified and experienced staff for key technical roles, and it has been necessary to conduct global searches to find them. These searches are neither cheap nor easy. A greater pool of Australian-trained and Australian-resident staff would remove these impediments and assist Australian FinTechs to grow.

Increasing a startups' ability to raise **capital** is key to ensuring a thriving FinTech sector. One important means of achieving this is through an ICO. Within the FinTech industry, blockchain and other crypto-related technologies are very important. Blockchain allows the development of an open ledger system, maintained through a computational work, effectively meaning that a centralised authority is not required to verify transactions or provide services. Blockchain companies also naturally lend themselves to the ICO as a fundraising mechanism, as the interests of investors and users can be aligned.

The ability to raise capital in the early stage of a business is a critical factor in the eventual success or failure of that business. Blockchain Australia has recently released a report with RMIT Blockchain Innovation Hub titled: *Australia's Blockchain Future: Recommendations for the Taxation of Initial Coin Offering*s [11]. This report highlights the issue that the issuance of an ICO is currently taxed as income, which does not acknowledge the economic function of an ICO. The report's recommendation was:

> "*A company's proceeds from the issuance of an ICO should not be taxed as income. ICO proceeds should be considered under an equivalent exemption as is offered to companies in respect of proceeds of capital raises. The treatment should apply retrospectively.*",

If applied, this recommendation will undoubtedly improve the FinTech outcomes within Australia. In creating the right ecosystem for FinTech innovation, innovators need the ability to raise capital with fit for purpose taxation. Proceeds from an ICO are not income, but a capital raise to build a platform and grow and develop the business. In Power Ledger's experience, this would make a substantial difference to the available capital for business development.

Ameliorating such taxation anomalies such as the one identified by Blockchain Australia will support Australian FinTech start-ups.

This perspective is incredibly important to Power Ledger. Having worked collaboratively with the Blockchain industry on this topic, the development of a fit for purpose taxation scheme for ICOs has been a major objective for Power Ledger. In our own experience, the ICO held in 2017 was a learning experience on the difficulty for innovating in a heavily regulated environment. What is clarity for incumbents, might be uncertainty for innovators. Nevertheless, Power Ledger is a proof of concept of how a new method of capital raising can work in Australia. The regulatory context was confusing and unclear at the time, and only limited guidance has been available since then. While Power Ledger acknowledges that it is not the regulator's job to provide legal advice on every issue, in an environment of fast innovation companies benefit significantly from regulatory certainty.

As a first-mover in the space, Power Ledger was always bound to face significant challenges in adapting to the regulatory environment around ICOs as a new form of fundraising. The company has spent significant time, money and effort in ascertaining its tax position in relation to ICOs. This is normal and expected for a first mover, but it provides a significant barrier to entry for any new FinTech company wishing to take the same path to funding.

Anecdotally, it is now a challenge to receive suitable legal and accounting advice in relation to the regulation of ICOs in Australia, and where available, this advice comes at a premium. This is over and above any advice and expertise that would be required around the core product and market that a particular FinTech is addressing, and significantly greater than the level required for similar stage businesses in different industries.

Often companies must decide between spending the money on legal advice in Australia to receive an uncertain outcome or spending similar sums to receive a working answer abroad. It's not unreasonable that many have chosen the latter route. The Australian FinTech industry would be significantly assisted by competitive regulation and clarity around the rules that pertain to ICOs, which takes into account the significant value to the economy and the taxpayer, that is likely to be generated from fostering this technology and fundraising mechanism.

Something that Australia is clearly behind other jurisdictions is the adoption of FinTech technology, which is cited as the 'cost of customer acquisition', which inhibits **demand**. The demand trends highlight that the adoption rate in Australia is below that of competing jurisdictions. Table 1 highlights this disparity in the case of Sydney, especially compared to some Chinese cities.

The experience of Power Ledger with respect to the adoption of service is not directly under the umbrella of FinTech or RegTech. While entrepreneurs in most areas of FinTech are related to banking and retail customers, the key market for Power Ledger's products is large energy retailers, property retailers, and other larger businesses. These understandably have different expectations and dynamics. This makes Power Ledger's reflections on experiences of demand less applicable to this consultation.

The **policy** development within Australia has clearly indicated that the Australian government recognises the need for change. However, uncertainties remain on certain issues. Again using the example of ICOs, uncertainty on the regulation and taxation of crypto-assets is stymying potential investment in ICOs in Australia. Australia receives only 0.79% of the $26B USD international ICO market [11]. A fit for purpose and competitive policy on the regulation and taxation of ICOs will benefit Australia as other jurisdictions are struggling to adopt a position on these issues, thus creating an opportunity for Australia [11].

From the perspective of Power Ledger, government consultations and inquiries have been frequent and a welcome opportunity to contribute. It is important, however, that the consultations substantiate reform that is proportionate to the opportunity. Timeliness is also key. The FinTech landscape is changing rapidly, and the typical consultation period is too long - if it takes a year to collect and analyse responses and adjust policy settings and legislation accordingly, the responses themselves may well be out of date. Decision-makers should recall that the Ethereum ICO occurred only in 2014, and ICOs as a fundraising mechanism became popular two years ago. The industry has grown and matured significantly since that time, and the policy input required in 2019 should not be using inputs from 2017. This is a significantly faster turnaround than for other policy areas (consider the timeline of the personal property securities reform for comparison). This creates a significant challenge for policymakers to move swiftly enough. Power Ledger has maintained a position that policy in this space should be focussed on the outcomes it wishes to achieve, allowing for flexibility in the particular means it uses to achieve these goals.

The 'FinTech **environment**' is also thought to be an important factor that can facilitate innovation. Incubators and accelerators across Australia have been created to support early-stage start-ups and are in many cases vital to their development. These environments provide hands-on training and mentoring, often in a shared space, for early-business entrepreneurs. Incubators and accelerators are increasing in popularity across the world, enabling local entrepreneurs [12], [13]. In the Australian context, these hubs are becoming an increasingly prevalent phenomenon, and have been for some time now [14]–[16].

Some space is required to host and grow entrepreneurial talent, but it needs to be done in a way that maximises the utility of (often scarce) funding. Incubators are often accused of being disconnected from the broader economy. Some describe these spaces as 'Innovation Theatres', separated from the commercial realities faced by businesses. Startups within these environments are accused of “building a better mousetrap without ever having seen a mouse” [17]. Innovative structures which partner incubators with larger corporates may go some way to ameliorating these issues.

Power Ledger is not the product of an incubator or accelerator but has appreciated the value added to the startup ecosystem from these institutions. These centres can have impacts that go far beyond the companies which call them home, as spaces which act as hubs for a local community. Further, being part of a successful and reputable accelerator or incubator program offers early-stage businesses significant credibility which can help to bridge the gap between a startup and the established business community.

More generally, in Power Ledger’s view, the FinTech community is made up of talented and passionate people who occasionally have difficulty with the challenging environment in which they find themselves, but are up for the challenge of operating within it. Once the other issues which are hindering the development of FinTech in Australia are resolved, no doubt more talented people will be encouraged to join the FinTech community, hopefully leading to an exponential growth of the sector.

c. the progress of FinTech facilitation reform and the benchmarking of comparable global regimes;

Australia’s FinTech strategy describes a desire to ‘promote Australia’s FinTech capability’. Published in 2016, it aimed to make Australia the leading market for FinTech innovation and investment in Asia by 2017 [18]. This highlights Australia’s ambition, but time has passed since 2016 and Australia has been outstripped by other jurisdictions [4]. Nonetheless the Australian Government maintains its support for the FinTech industry, and its support should be acknowledged.

Australian Prime Minister Scott Morrison has been an active advocate for FinTech innovation [19]. Additionally, Australia has an Assistant Minister for FinTech for the first time in Senator Jane Hume. Currently, Senator Andrew Bragg chairs the Select Committee on Financial Technology, which again reiterates Australia’s interest in this area. The signals are strong, and the FinTech industry is looking forward to these signals being turned into tangible policy decisions.

However, beyond bringing up to speed in an international regulatory context, progressive regulatory treatment for FinTechs could give Australia the edge over comparable jurisdictions, particularly in the Asian region. A comparison of various KPIs from the *2018 Global FinTech Hub Report*, can be seen in Table 1, where the data is taken from the report and compiled in a way that highlights Australia’s position relative to world leaders. Clearly, the position of 11 is a very competitive position and is fitting given Sydney’s financial and educational institutions.

Notably, however, China has 4 of the top 7 FinTech hubs in the world according to this survey. The remarkability of China's success in this space is highlighted by its extremely high FinTech user rates. While Sydney has an adoption rate of 41 per cent, the 4 top 7 Chinese cities have adoption rates higher than 80 per cent. Like each of the top 7, Sydney has access to world-class education and a relatively high government support index. The point where Sydney falls behind is the lack of FinTech companies which have received significant venture capital funding - only seven companies have raised more than USD 50m, as compared to 58 in Beijing.

Table 1 - compiled data from the *2018 Global FinTech Hub Report* [4]:

	Beijing	***San Francisco***	***New York***	***London***	***Shanghai***	***Hangzhou***	***Shenzhen***	***Sydney***
Number of Fintech Companies With Total VC Investment Exceeding USD 50 Million	*58*	*56*	*48*	*32*	*26*	*13*	*18*	***7***
Financing Received by Fintech Companies with Total VC Investment Exceeding USD 50 Million ($100M)	*211.9*	*131.3*	*101.8*	*79.9*	*92.2*	*238.8*	*34.7*	***9.4***
Percentage of Fintech Users (%)	*84%*	*50%*	*43%*	*56%*	*82%*	*92%*	*86%*	***41%***
Government Policy Support (100 pt scale)	*68.2*	*79.7*	*70.7*	*79*	*67.6*	*68.7*	*67.9*	***64.5***
Fintech Regulation Score (100 pt scale)	*64.2*	*80.4*	*71.7*	*87.1*	*64.2*	*64.1*	*64.2*	***75.6***
Rank	*1*	*2*	*3*	*4*	*5*	*6*	*7*	***11***

It is important to identify and correct the factors which are contributing to this lack of incoming capital to the Australian FinTech space. Capital is the key factor that is holding Australia back compared to the top 7 hubs, and Australia should be sure to enable every possible stream of capital to be accessed by a growing FinTech industry.

d. current RegTech practices and the opportunities for the RegTech industry to strengthen compliance but also reduce costs;

N/A

e. the effectiveness of current initiatives in promoting a positive environment for FinTech and RegTech start-ups; and

The government's commitment to promoting a positive environment for FinTech startups is to be commended - in particular, the transition from policy statements to real-world action. Power Ledger has not itself significantly benefited from any of the current initiatives but it is clear that the community sees the Innovation Hub, Regulatory Sandbox and other initiatives as legitimate resources to consult for the growth of their business.

There will always be an internal tension between the roles of a regulator which offers guidance to young companies in a sandbox or similar environment, but whose general mandate is to identify instances of non-compliance and sanction offenders accordingly - particularly given recent indicia around the approach taken by Australian regulators in 2019. The 'sandbox' structure is appropriate for products which may be operated with appropriate licences which are expensive to obtain (eg an AFSL), but less so for innovative products which may not be accounted for at all in the current regulatory regime. If a business model isn't accounted for by regulations in the real world, there is little value in a regulator permitting it to be developed in a sandbox.

Blockchain technology-related FinTechs may fall outside of the regulatory regime altogether, and developing such products in a regulatory sandbox runs the risk that a regulator is setting these companies up to fail. A 'passporting' or upfront approval process would be useful to allow new FinTech businesses to develop their products with confidence. It would also provide significant credibility to foreign investors for Australian businesses. Anecdotally, Australian companies are already given significant credibility due to the strong regulations and consumer protections within which they must operate. An approvals system focussed on FinTechs would only make these companies more appealing for foreign customers and investors.

f. any related matters.

Power Ledger would like to thank the Australian Senate for this opportunity to contribute to the development of Australian FinTech and RegTech. We look forward to viewing the findings of the inquiry, which will provide insight into the future of the Australian FinTech industry.

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