The Balance of Power:
Why Australian Utilities Need to Defend, Delight and Disrupt
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The Australian electricity sector is approaching a pivotal point in its evolution. Every part of the value chain is experiencing significant change and all parties - generators, retailers and distributors alike - are only too aware of the emergence of the fundamental and irreversible shifts which are disrupting the sector. But, for some, this is also prompting a reinvention that will forge the way to future prosperity in an environment where consumers can and will choose to move completely off the grid and take more control of their energy choices.

Falling demand, solar photovoltaic (PV) uptake, soaring prices, consumer apathy and activism, new digitally-native competitors and uncertainty over government regulation supporting the future of renewables – are all tearing at the traditional industry norms and changing how Australians feel about the provision of essential services.

While retailers, gentailers and distributors are facing starkly different challenges – with differing issues in each part of the value chain – their need and drive for reinvention are equivalent.

Traditionally distributors have benefited from being natural monopolies, earning returns from a regulated cost-plus-margin framework, while delivering a critical and essential service. But without substantial change and innovation, they face an uncertain future; the cost-plus-margin deal may potentially offer lower returns for the future. The central challenge they face is how to redefine their value proposition and commercialise innovations which are likely to have major operational impacts on business models rather than incremental improvements.

Retailers, meanwhile, are facing fierce competition from new market entrants and industry convergence from the telecommunications, home security and potentially food retail sectors. These new players are digitally-savvy and unshackled by an operating model heritage enabling them to better deal with the new breed of consumers who are eager to do whatever it takes to gain more control, cut their energy bills and source services from whoever has the best value proposition. Retailers are in a race to change quickly enough to enable them to retain and grow their most profitable customers.

At the other end of the value chain the generators are suffering from an oversupply problem not only due to declining demand but also from the Renewable Energy Target (RET) which has legislated a fixed target of production from renewable sources by 2020. Those organisations which fail to innovate and implement significant strategic reform may be unable to compete with more agile peers and new market entrants with more trusted brands. The tried and true strategic responses of ‘defend or differentiate’ may not be enough to ensure survival. What is now required is a major new move towards ‘delight or disrupt’ – those who fail to do this should be prepared for fundamental upheaval.

In this report, which is written in partnership with The Australian Financial Review, Accenture proposes a series of recommendations that the Australian electricity sector can choose to embrace to ensure they continue to evolve and accelerate:

1. Articulate a compelling value proposition for the industry. Electricity is an essential, reliable and collaborative service that enables the lifestyles of every Australian. Its inherent value needs to be communicated and attributed back to the service providers and asset owners who we all rely on every day.

2. Understand digital is disrupting the value proposition. Digital users are more satisfied than non-digital users. Adopt an ‘outside-in’ perspective to reinvent the service propositions for specific customer segments.

3. Stability and growth are not mutually exclusive. It seems utilities need to run as fast as they can to stand still. While institutional investors may want a predictable revenue stream, market forces and regulation require thinking beyond the restrictive boundaries of existing business models and roles. Experiment with new revenue streams or investments to test and learn what can work (rather than what won’t). Look for the ‘art of the possible’ rather than just a defensive ‘play’.

4. Commercialise innovations. Utilities are full of smart engineers and scientists. Instead of chasing new inventions the real challenge is to find ways to commercialise their best ideas. Reinvent how energy is bought, sold and traded and look to align the ‘trilemma’ of supply, affordability and sustainability in new, innovative ways.

5. Be prepared for industry-wide disruption. From taxis to telecommunications, traditional industries are being fundamentally redefined. Peer-to-peer networks and the shared economy know no boundaries and have little regard for regulation. Our ‘new normal’ demands reinvention.

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Industry insights

1. The customer service conundrum and digital disruption

When Fairfax Review Business Intelligence surveyed 699 Australians in 2014 about how satisfied they are with the customer service provided by a range of different sectors, energy utilities ranked worst and were in a similar territory to the telecommunications sector. The sobering evidence was that only nine per cent of respondents ranked energy companies either first or second when it came to delivering ‘excellent’ customer service. See Figure 1.

This level of dissatisfaction has spurred customer churn as consumers look to new industry players, including tier two companies, for what is perceived as better and simpler service at lower and fairer pricing.

In recent times, the main winners from this churn have been tier two retailers. These competitors appear to be nimble and have successfully constructed a simpler and more consumer-friendly way of doing business with customers; particularly consumers who are agnostic to energy services. In Victoria alone, there are 26 electricity retailers many of which have emerged in recent years. There are 23 smaller tier two retailers currently holding slightly less than 30 per cent share of this market.

Some retailers are already innovating in an attempt to fend off competition, lift customer service and cut churn. Origin Energy, which has 4.3 million customers across electricity, natural gas and LPG, has axed exit fees on customer contracts, extended weekday call centre hours and stopped all door-knocking and cold-calling even though it recognises that this last action could dent its market share.

In an interview with The Australian Financial Review, Origin’s general manager of Sales, Service & Marketing, Rebekah O’Flaherty, stated that “The energy industry is just above tobacco in [consumer] likability. If you think about telco’s, which have been on a similar journey, we’ve moved from public [ownership] to private. It’s a complex sector with high levels of regulatory participation. What that means is often the organisation can be very inward-looking because of all those technical and very complex dimensions. The industry just hasn’t moved fast enough on customer service. There is distrust against the industry and our research certainly shows that. It won’t change overnight but we’re committed to this kind of long journey of building trust. It’s pretty compelling.”

It has been a long journey back to re-building the trust of energy consumers. In Australia, after many years of poor performance, trust in utilities companies is on the rise. Accenture’s 2014 New Energy Consumer Research has found that customer trust climbed from 20 per cent in 2011 to 35 per cent in 2014 — more than online service providers, telecommunications groups, home security companies, and other new entrants in the energy market. Now that trust is on the rise, customer satisfaction needs to follow. The difficulty is that consumers interact with their provider on average only 12 minutes per year and more than half have not interacted at all in the past year. Also 70 per cent of customer interactions are currently negative. See Figure 2.
Figure 1. Industries providing the best level of customer service
[respondents ranking 1st or 2nd]

- Energy companies (gas, electricity) 9%
- Telecommunications and communications companies (phone / internet) 11%
- Airlines and travel companies 32%
- Banks and financial services companies 33%
- Retail companies (supermarkets, shops) 42%
- Hospitality and accommodation lodging companies (restaurants, bars, hotels) 59%

Figure 2. How much do you trust the following sectors?

<table>
<thead>
<tr>
<th>Industry</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>% Trust</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academics/schools/scientific associations</td>
<td>7%</td>
<td>47%</td>
<td>43%</td>
<td>50%</td>
</tr>
<tr>
<td>Consumer associations</td>
<td>13%</td>
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<td>44%</td>
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<tr>
<td>Environmental associations</td>
<td>19%</td>
<td>44%</td>
<td>37%</td>
<td>42%</td>
</tr>
<tr>
<td>Government/governmental organizations</td>
<td>22%</td>
<td>43%</td>
<td>35%</td>
<td>27%</td>
</tr>
<tr>
<td>Utilities/energy providers</td>
<td>23%</td>
<td>52%</td>
<td>25%</td>
<td>16%</td>
</tr>
<tr>
<td>Online service providers (e.g., Google, Microsoft)</td>
<td>22%</td>
<td>57%</td>
<td>29%</td>
<td>22%</td>
</tr>
<tr>
<td>Retailers/equipment manufacturers</td>
<td>18%</td>
<td>56%</td>
<td>26%</td>
<td>14%</td>
</tr>
<tr>
<td>Home service providers (e.g., cable television provider, telecommunications provider, home security company etc.)</td>
<td>18%</td>
<td>56%</td>
<td>26%</td>
<td>14%</td>
</tr>
</tbody>
</table>

Do not trust
Neither trust nor distrust
Trust

- Do not trust
- Neither trust nor distrust
- Trust

% Trust

2013 2012 2011

Academics/schools/scientific associations 8% 43% 49% ↓ 1 pts 50% 34% 50%
Consumer associations 7% 47% 46% ↑ 6 pts 40% 44% 50%
Environmental associations 13% 44% 43% ↑ 1 pts 42% 36% 51%
Government/governmental organizations 19% 44% 37% ↑ 10 pts 27% 36% 29%
Utilities/energy providers 22% 43% 35% ↑ 15 pts 20% 28% 20%
Online service providers (e.g., Google, Microsoft) 14% 57% 29% ↑ 7 pts 22% 22% 22%
Retailers/equipment manufacturers 18% 56% 26% ↑ 12 pts 14% 22% 13%
Home service providers (e.g., cable television provider, telecommunications provider, home security company etc.) 23% 52% 25% ↑ 9 pts 16% 17% 13%
The way forward:

Understand that customers are irrational
Energy providers need to understand that customers exhibit behaviours along a spectrum from ‘agnostic’ (those who are not interested) to those that are highly ‘literate’ (those that will actively engage at a deeper level). Customers will quickly respond when offered ‘make it easy’ propositions and have very little loyalty or trust in traditional service provisions. They will display seemingly irrational behaviours as they look to find the best price, the most convenient service and exert a degree of control by switching their energy provider.

Make better use of digital, personalisation and user-centered design
Successful players in other adjacent markets like telecommunications have seen the need to approach digital technology, personalisation and user-centered design as an opportunity to completely reinvent their interaction model to deliver a seamless, easy and convenient experience. We see this customer centric approach educating energy consumers on what they should expect from not just ‘good’ interactions but ‘great’ leading to greater levels of satisfaction and loyalty. Accenture’s annual global energy survey found that digital channel users are more likely to be satisfied with their energy company (75 per cent) than non-digital users (61 per cent). Therefore, it’s important that electricity companies understand that many consumers have a preference to interact with their energy company through non-traditional channels and communities including social media, mobile, the cloud and online peer-to-peer platforms.

The ‘new’ world revolves around the consumer’s orbit. Their participation in peer-to-peer networks, and social media has created a world of highly personalised interactions. There is an opportunity to harness the propensity of sharing information in exchange for something of value. 52 per cent of Australians agree that they would be prepared to share personal information with their energy supplier in return for a more tailored experience.

Designing from the customer viewpoint is the key to unlocking valuable customer transactions. The concept of ‘user centred design’ is reinventing ‘how’ this is achieved. This approach is based on four supporting pillars of customer engagement – ensuring all channels are simplified, connected, effective and differentiated. See Figure 3.

Figure 3. To raise levels of satisfaction and participate in the new consumer orbit, energy companies should look to deliver a more user-centered approach to customer engagement.
The ‘death spiral’ is in its early stages with consumption declining and mass uptake of rooftop solar allowing customer less reliance on the grid. With the potential for mass grid defection when battery storage technology becomes ubiquitous the ‘death spiral’ will kick into overdrive. Ironically, the industry invested in infrastructure expecting demand to rise. Instead, it has steadily fallen but the investment is still needed to be recouped through increases in electricity prices. In response to this irony, savvy consumers have harnessed solar and utilised smart meter data to take control, proactively manage their electricity use and reduce their reliance on the grid. With the emergence of new service-based entrants, who are offering referral and brokerage of different elements such as solar and battery storage, there is a threat that a mass ‘off grid’ defection of customers will occur. It’s clear now that the industry including regulators predicted the wrong trend and this was unfortunate timing just as substitutes, such as solar and other viable alternatives, were reducing significantly in price creating attractive alternatives to the grid. See Figure 4 and Figure 5.

Earlier this year, EnergyAustralia warned the Government in a submission to its energy review that without radical reform the National Electricity Market (NEM) was doomed; that confidence among investors was so low that security of supply was at risk; and that half of Australia’s power producers were in the red last year.16

EnergyAustralia’s submission noted “For the market to be sustainable and in the long-term interests of consumers, the National Electricity Market requires serious reform. Where generators are unable to achieve appropriate commercial returns, investment in non-essential activities will not be undertaken, and this could threaten generation capacity at times when it is needed most.”17

It was a dire prediction and one that has indeed eventuated in Europe where the top 10 energy companies have lost half of their value since 2008 and only five of those 10 maintained a credit rating of ‘A’ or above.18

While government regulation and the status quo could defend and sustain electricity providers – generators, distributors and retailers - this is not a reliable tactic alone. They have the opportunity now to reinvent themselves and shape their own success.

The way forward:
Do what it takes to manage the threat of extinction
To manage the threat of the extinction, the industry needs to act now and take a leap of faith through reinvention, convergence and innovation rather than relying on the traditional mindset of defending the status quo. This approach will favour the brave, and demands exceptional leadership. Distributors need to find ways of increasing the utilisation of the assets they own in the same way that hotels and airlines find innovative ways of ensuring full bookings. Innovative pricing and helping consumers connect all devices especially at non-peak times are critical. The grid needs to be seen not only as a vital connecting system, linking the consumers and sellers of electricity but with value added information services that cannot be provided by others.
Price of stand-alone energy substitutes such as solar and battery storage may approach grid parity, raising questions about whether grid supplied energy costs can decline in line with substitutes.

Declining grid usage along with viable alternative energy substitutes threatens the medium term viability of distributors’ business models.

Customers use less energy from the network, prices increase further; more customers leave.

High prices push customers to move 'off-grid'.

1. Energy demand has fallen by 7% since 2009 with primary energy demand forecast to rise by just 0.5% a year until 2049-50.

2. Distributors have spent $45 billion on poles and wires since 2009 and tariffs have increased to recoup that investment.

3. Consumers have seen electricity prices double in five years. Gas prices have increased 20% in the last year alone and spot prices increased to 69% on the previous year.

4. More than 1 million Australians have invested in solar photovoltaics.

5. The global electricity sector spends just 0.3% of revenue on research and development.

6. Global electric smart meter installation is forecast to reach around 800 million by 2020.
Globally the electricity sector spends a skeletal 0.3 per cent of their revenue on research and development. Aside from the consistent investment in renewable energy technology, many recognise now that the sector has failed to invest overall in its future in an impactful way.

The advent of more effective solar PV panels and the development of cheaper, more reliable lithium battery technology to store energy are allowing some consumers to inch more closely to going entirely off the grid. This trend doesn’t just pertain to residential homes with some businesses and large energy consumers, such as data centres, now relying more heavily on solar PVs, co-generation and modern design to reduce their reliance on the grid and electricity-intensive air conditioning.

Accenture’s 2014 New Energy Consumer Survey revealed that more than half of all global energy consumers would consider installing connected home solutions or solar panels in the next five years, or purchasing an electric vehicle in the next 10 years. And that’s based on their knowledge of current prices which are rapidly falling.

In fact, Australia already has one of the lowest prices per watt for installed residential solar systems in the world with an average of $2.56 per watt in Australia compared with $4.93 per watt in the United States.

Meanwhile, interest in connected home products and services such as energy management and other monitoring and control solutions is projected to rise from seven to 57 per cent in the next five years, as consumers seek to cut energy bills, boost their comfort and convenience, and enable remote control of home devices.

The more forward-looking electricity companies will lift their sights and choose to see a brighter future in this emerging market no matter where they participate today in the value chain.

During a Background Briefing on the ABC in early 2014, Ergon Energy CEO, Ian McLeod, acknowledged the profound change in consumer behaviour which has seen organisations and individuals embrace solar PVs and modern battery technology to combat high electricity costs.

The report noted that over one million Australian homes now had a solar PV system installed, with residential penetration levels averaging 15 per cent nationwide, and over 30 per cent in some areas.

Bloomberg New Energy Finance’s 2030 Market Outlook says that Australia is expected to spend some $55 billion on new electricity generation over the next decade and a half, but two thirds of this will be in the form of solar technology, and nearly half in rooftop solar PV by home owners. Clearly Ergon’s newly stated approach is just recognising the reality – reliance on poles and wires is changing as is the balance of power. Their monopoly position is diminishing regardless of government cost recovery models.

As the CEO of America’s NRG, David Crane puts it – we are coming to a post-grid future "There will be systems that harness thermal and electric synergies and across not only clean energy, but also fresh water production, waste disposal and electrified transportation to create a virtuous circle of civil sustainability."

The way forward:

Experiment fast and be prepared to fail

To innovate for the future, the industry needs to experiment fast and be prepared to fail in order to learn and evolve. Energy in the future will become ubiquitous giving birth to many new products and services in the market and not all of them will be an instant success. Companies who experiment with these and are creative in offering simple offers, fair prices and innovative bundles to customers will emerge as winners.
Case study: Battery storage

Battery storage is the highly hyped game changer; by some estimates the average householder in Sydney or Melbourne could disconnect from the grid by as soon as 2018.28

Meanwhile, attempts to build distributed energy networks relying entirely on solar energy are gathering pace. California is at the vanguard of the move to battery storage and has mandated a 1.3 gigawatt target for energy storage by 2020 and announced plans to encourage the adoption of battery storage behind the meter.29 In South Korea, Kepco is investing US$612 million in establishing an energy storage system by 2017.30

Closer to home, Ergon Energy has recently signed a deal to implement 100 kilowatt per hour lithium-ion batteries to be installed in locations across its grid in regional Queensland.31

Panasonic, which makes the batteries for the Tesla electric vehicle, has launched a slew of PV storage systems aimed at everything from the family home to remote islands. It is now working on so-called LiEDO networks, linking lithium ion batteries connected to solar panel equipped homes and businesses, to create a distributed energy network completely isolated from the grid.32

The hype, it appears, may well be warranted.
Forging partnerships with consumers while redefining the ubiquitous nature of energy

While some have taken a strategic approach to business model reform, there are a host of other approaches currently in play in the market. Some new entrants have taken almost all customer interactions online to speed up and streamline service; others are bundling services as they attempt to carve out a business as a one-stop utilities shop.

Powershop, for example, which is owned by New Zealand’s Meridian Energy, describes itself as an online power company and provides applications to allow consumers to monitor their energy use and bills and does not lock them into contracts. The company has a light footprint compared with many traditional electricity retailers, employing only 70 people. It’s an approach that has secured it around 15,000 customers to date with ambitious plans to expand.33

Other electricity companies can also seek to forge closer connections with their customers. New technologies are emerging which will support such initiatives; some of them home-grown such as the Australian-developed Flamingo customer experience platform.34 This allows companies to create collaborative online environments where they can engage in a dialogue with customers, allowing them to construct a tailored service package – picking from a catalogue of service options and pricing plans. This potentially puts the power back in the hands of the consumer, lifts perceived service levels and, at the same time, establishes a closer connection between the supplier and consumer.

At an industry level, there are opportunities for electricity companies to partner with businesses as they roll out smart networks using the so called ‘internet of things’ which relies on sensors and connected devices to gather data and insight to better inform business decisions and strategy. Electricity retailers could also take a leaf from this book by partnering with telecommunications companies to supply industry with smart network devices and consumers with smart homes. Equally, they could pair with supermarkets to install electric vehicle recharge stations in their car parks.

The way forward:

Recognise the game is a win-win

The industry would benefit from understanding that the game is a win-win by enabling customer choice for those that want to achieve greater efficiency. With low levels of customer satisfaction, consumers can perceive that energy utilities are in it solely for themselves. Those that are able to put themselves in their customers’ shoes and understand that rather than penalising loyalty by raising prices for those that don’t switch; they should be focused on rewarding loyalty, will be dominant in the market.

There’s also real opportunity to rebrand the distribution of electricity as an essential, reliable and collaborative service which supports customer choice and enables the lifestyles of all Australians. The prize for doing is increased trust and reputation which will facilitate an easier transition to new business models with new revenue streams.
5. Reinventing essential services

Innovation is not just about new products, services and partnerships – it also extends to branding. To engage consumers, electricity needs to be portrayed as more than a flow of electrons; it should be viewed as a lifestyle enabler.

Water utilities were forced to grasp this when aspirational bottled water campaigns began to undermine tap water’s cachet. In Europe, a concerted effort to raise the quality of tap water and telegraph that to consumers has arrested the rise of boutique bottled water sales in the Netherlands as consumers acknowledge and embrace the quality of utility-supplied water.36 Closer to home, Yarra Valley Water’s witty and innovative marketing campaign “Choose Tap”36 is aimed at luring people away from bottled water and back to the tap. A social media campaign, which has gone viral on YouTube, pokes fun at the bottled water industry by testing consumer reaction to being sold “bottled air” in the Dupe Store.37 The campaign also nods to research conducted by Newspoll which notes that it is the under 35 consumers who are more likely to buy bottled water and hence need to be wooed back to tap.

Some electricity generators and retailers are similarly now grasping the branding nettle. Origin’s recently-launched campaign “energy made fresh daily”, for example, recognises the need to establish an emotional connection with the consumer and communicate the value of the service being provided.38 Similarly, AGL’s recently launched “everyday” campaign echoes the fact that energy is critical to our everyday activities, providing comfort and convenience.39

From a branding perspective it is becoming clear that the distribution companies have a clear story to tell on how they contribute to the supply of a guaranteed and reliable service. As consumers invest in smart home technologies, allowing them to remotely control devices in their homes, the smart providers of essential services will be those which can demonstrate how they fit into the emerging distributed home.40

With consumer trust of electricity companies well below other sectors including supermarkets and banks,41 energy companies need to develop strong and confident identities to enable the industry to build a compelling brand.

The way forward:

Build a compelling industry brand

Reinventing energy will require a clearly articulated vision to convince customers of its fundamental value. ‘EnergieWende’42 in Germany’s electricity industry has captured the imagination and enthusiasm of citizens rallying behind the need to change to alternate forms of energy generation with wind and solar. While it has meant greater challenges for utilities, their strategic responses are instructive and prescient.

Get the balance right

Continue to reinforce strong and confident identities. At the heart of it all is a critical ‘trilemma’ in managing the balance of reliable supply, affordability and sustainability. If any of these becomes unbalanced there is a fundamental shift and the balance will be lost.
The decision for utilities is whether to remain focused on regulated markets, or chase growth and fresh revenues in higher-risk, unregulated areas. Focusing on both in the long-term may be problematic given culture, corporate capabilities and investors who favour stable, regulated returns. However, the dilemma is that it’s critical to have ‘one foot in today and one foot in tomorrow’ to keep pace with the evolution of the industry and to be in the best position to grasp the opportunities as they emerge.

In the United States (US), a number of companies (PPL Energy, NextEra, NRG and Dominion, for example) have spun off or established new business units. Some have done this for purely financial structuring reasons while others have created new entities so that they can operate in both the regulated and unregulated markets, but through separate vehicles. This will provide them with a clear focus on ‘today and tomorrow.’

The overwhelming trend in the US, however, sees distributors focussed on regulated returns in order to deliver investor certainty. Declining demand, swelling ranks of competitors and customer churn are not optimal ingredients for businesses looking to grow. For some incumbents a merger and acquisition (M&A) strategy has allowed them to grow their market footprints, however, M&A has limitations as a tool for growth especially with an increasingly concerned competition watchdog. Distributors need to innovate beyond poles and wires, investigating new business models, and forming fresh alliances.

Meanwhile, electricity retailers need to find some way to grow market share despite the widespread perception that they are selling commodity services. Global experience shows that retail utilities need to deliver a differently branded experience to certain customer segments or a cheap and cheerful product. There is no middle way.

Successful utilities differentiate in terms of the products and service they deliver – and avoid any temptation to simply engage in a race to the bottom on price which would only exacerbate customer churn.

There is a real opportunity to do things differently; to positively influence hip pockets and the overall prosperity of the Australian economy. Retailers that can work out how to keep customers happy with a bundle of affordable, sustainable and reliable services backed by great customer support will reduce churn and attract new customers, both domestic and commercial.

Savvy utility companies will also focus on sustainability in part to support a low-carbon economy, placing Australia and Australian businesses in a strong position to operate in an increasingly carbon-constrained world, but mainly because sustainability spells survival in the consumers’ eyes.

Against this backdrop both incumbents and new entrants must continually explore their options. Prosperity – survival even – demands a fresh approach. It demands greater investment in research and development and a sharper focus on innovation, not just in terms of new products and services, but in business process, in alliances and in organisational structure.

Innovation involves more than finding better ways to deliver power to the consumer – that’s the ticket to the game. Electricity distributors and retailers need to embrace new technologies and business models in order to develop more customer-centric services. They must overhaul their business models taking a leaf from other deregulated and technology-fuelled sectors such as telecommunications and banking which have restructured, invested in technology, partnered with business in other sectors to deliver innovative service bundles, and in the process built a brand, met customer expectations, rewarded loyalty and engendered trust.

Utilities which don’t acknowledge the deep and permanent changes taking place in the sector, or the need for transformational reform, are unlikely to survive much beyond the next decade. Meanwhile those organisations prepared to undertake a transformation journey can still carve out a commanding position for the future.
The way forward:

Find new ‘dance’ partners
In the search for balance and growth, utilities need to seek out partnerships with those sectors with complementary capabilities. They also need to take fresh ideas from consumers in the same way that organisations such as Coca-Cola and Starbucks use crowd sourcing at huge scale to harvest new content and ideas.

Understand shareholder needs
Equally, distributors will need to demonstrate their business model to shareholders. Historically, the utilities sector has focused on stable but low returns. With large threats looming, stability cannot be relied upon. But chasing high returns with the commensurate risks may not be appealing to institutional investors seeking long-term and stable returns. Articulating a clear, compelling and evidence-backed business model and being prepared to sell it are more important than ever.

Look to new innovations like a ‘peer-to-peer’ platform for electricity
Taking the ‘Uber’ concept as a cue, distributors could become true connectors between the buyers and sellers of energy allowing market participants to find ways of adding and extracting value and in the process maximising the utilisation of distributor’s assets.
With so many cars on our roads and never a taxi when you need one, it seemed obvious when Uber (a platform application that connects passengers with drivers of vehicles for hire) arrived on the market. It’s a similar situation for Airbnb (a website for people to rent out lodgings). The concept of the ‘sharing economy’ – whereby previously under-utilised private assets are bought, sold or hired via peer-to-peer platforms – is creating significant disruption across several industries. The Wall Street Journal recently valued Uber at over US$18 billion – the same valuation as Hertz and Budget combined.\(^4^4\)

The disruption Uber and Airbnb are causing in traditional industries has sparked massive protests from cabbies in Europe and hotels in New York, who are claiming that at least 75 per cent of the rooms being let are illegal.\(^4^5\)

With the dramatic take-up of residential rooftop solar systems, could the power sector be next? For example, an owner of a solar system may not be home during the day when their system is generating most of its output. Although most solar systems are able to sell excess energy back into the grid through feed-in tariffs (and so are not sitting completely idle), the value recouped is relatively small. Meanwhile another home – be it next door, in the next street or in the next suburb – that sources energy from the grid at the same time, is paying significantly more for their power than what the home with the solar system is receiving from their feed-in tariff. So what if a third party platform emerged that allowed these two peers to connect and facilitated a transaction that captures the value currently being captured by to the utility?

Yes there are regulatory considerations but this is already happening in the Netherlands. Vandebron is a platform that allows consumers to source power directly from producers (mainly from farms with excess available renewable generation capacity) and is cutting out the intermediary energy company.\(^4^6\)

So how should incumbent power sector participants respond? Perhaps by taking the same concept (under-utilised assets) and finding more buyers at non-peak times.

Indeed, many networks have assets that are heavily under-utilised with load factors (the ratio of average energy to peak) less than 65 per cent. A network company (which currently makes up about 50 per cent of the average end user bill) could offer massively subsidised grid access for midnight usage which could be stored in batteries (or electric vehicles) by entrepreneurs and sold back at peak times.

The distributor would become a true connector between the buyers and sellers of energy allowing market participants to find ways of adding and extracting value from its assets. See Figure 7 and Figure 8.

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**Figure 7. Potential electricity platform model**

- **Retailer A**
- **Retailer B**
- **Disintermediation point**
- **Service charge**
- **Power flows**
- **Platform**

**Figure 8. Value captured for consumers in a shared economy model**

<table>
<thead>
<tr>
<th>Current (no sharing)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Consumer</strong></td>
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<tr>
<td><strong>Usage tariff / kWh</strong></td>
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<td><strong>Prosumer</strong></td>
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<td><strong>Fit / kWh</strong></td>
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<td><strong>Consumer</strong></td>
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<td><strong>Sharing price (paid)</strong></td>
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<td><strong>Sharing price (received)</strong></td>
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<table>
<thead>
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<th>Industry value at risk</th>
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Case study: Shining a light on the Lone Star State

To prosper in heavily contested markets, all utilities – incumbent and start-ups – need innovative and strategic approaches when structuring and building their businesses and developing the range of services offered.

Texas began its electricity deregulation journey in 2001 in a staged transition that saw fully competitive tariffs introduced from 2007 before increased consumer protection was implemented in 2008.47 Clear segregation of generation, distribution and retail roles spurred competition among both incumbents and new entrants. That competition drove product innovation, service bundling and innovative energy management services to provide consumers with more control over consumption.48 Suddenly companies weren’t selling a commodity item, but a differentiated service and a brand promise. By 2012, 55 new entrants controlled 41 per cent of the highly competitive retail market.49 Now Texas has a different and separate brand targeting the elderly, Hispanics, Asians, young and hip and of course, plenty of no frills discount online only brands.

NRG, for example, operates ten separate business units, offering services ranging from operating and maintenance services for power generators and industry to a solar power business and a residential solar leasing business. It provides steam across the state, runs a rewards program based on energy spending, has established an electric vehicle recharging network and a renewable energy generator.50 It also sells electricity through its Reliant retail energy business.

Bounce Energy, meanwhile, set up as an energy retailer in Texas in 2008, gaining 57,000 consumers by 2012, almost all of whom initially signed up for the service online. It has since expanded into Pennsylvania and New York.51 Unlike many energy retailers, Bounce allows consumers to build their own energy plan, selecting from a range of options described online which allow consumers to choose the length of their plan, how much renewable energy they want in the mix, and the way they want to be billed. In 2013 Direct Energy, one of the United States’ largest energy and energy-related services companies, announced it would spend $US46 million to buy Bounce.52 While it secured access to a larger customer base, the jewel in the crown is Bounce’s online platform, which Direct Energy expects to significantly reduce the cost of acquiring new customers.

Case study: US market regulation

Since deregulation there has been a structural shift rippling through the United States’ utilities market; large utilities with significant gas or nuclear portfolios, such as Exelon, Entergy, FirstEnergy and PPL have remained in the unregulated end of the spectrum seeking growth by buying up other energy producers, while a growing number of companies migrated to the regulated sector lured by the promise of more predictable earnings.

But there are an increasing number of American utilities developing a hybrid regulated/unregulated business model and these too have been active in M&A, seeking to gain predictability from scale and diversity, or have made investments in other areas such as high-voltage cross-state electric transmission in the search for high returns. Exelon, for example, has itself signaled that it is shifting away from merchant generation, which can be susceptible to fluctuating commodity prices and consumer demand, in order to embrace more regulated opportunities, spending $US13.5 billion over the next five years to upgrade infrastructure, improve reliability and deploy smart meters as it seeks to split its activities between both regulated and unregulated markets.53 The company plans to buy Pepco, which operates largely in the unregulated part of the market, for $US 6.8 billion, creating the nation’s largest utility in terms of customers served. To help pay for Pepco, Exelon will offload around $US1 billion worth of fossil fuel power plants. The deal, which requires regulatory approval from the federal and five state governments, is expected to close in mid-2015 and deliver savings of $US250 million over five years.54 The search for predictability and growth is also driving many US utilities to take an innovative approach to corporate structure. NextEra, for example, was the first utility to create a YieldCo, an investment vehicle designed to separate out unregulated assets, in this case renewables, and create a separately traded entity.55 The prospect of utility assets being recognised by regulators as real property will also encourage firms to explore the possibility of establishing REIT-type structures (real estate investment trusts) with similar returns in the form of TransCo’s which parcel up the transmission side of a business in order to liberate value.
In a nutshell: How Australian electricity companies can defend, delight and disrupt:

1. Understand that customers are irrational: the spectrum of care and interest is wide so your interaction tactics need to be as well.

2. Do what it takes to manage the threat of extinction through reinvention, convergence and innovation. Strong and exceptional leadership is required.

3. Experiment fast and be prepared to fail: innovate and build commercial acumen.

4. Recognise the game is a 'win-win': show the customer you are on their side.

5. Build a compelling industry brand: the prosperity of the industry relies on consumer acceptance of the existing provider’s criticality.

6. Get the right balance of supply, affordability and sustainability. Articulate the trade-offs, make it transparent and ask consumers what they want.

7. Find new ‘dance’ partners by seeking out partnerships. Don’t do it all yourself. Partner to find complementarities.

8. Look to new innovations like a ‘peer-to-peer’ platform for electricity: take examples from other industries and determine how they can be adopted.

9. Understand shareholder needs: articulate your business model and sell it.

Survival is determined by those that evolve to meet the ever-changing environment. The challenge that lies ahead for the electricity industry is threefold:

- Defend the revenue streams that will sustain you into the future
- Delight customers that are of the most value
- Disrupt the traditional dynamics of the market and the products available to meet the opportunities of an evolving market.
References

3. Snowy Hydro Acquires Lumo Energy, Snowy Hydro, 13 September 2014
10. Australian Energy Projections to 2050, Bureau of Resources and Energy Economics, May 2013
14. Dan Arvizu, Director and Chief Executive of the National Renewable Energy Laboratory (NREL), 2012
15. The Smart Meter Revolution: Towards a Smarter Future, Telefonica, 18 March 2014
19. Dan Arvizu, Director and Chief Executive of the National Renewable Energy Laboratory (NREL), 2012
21. Lessons from Australia: Reducing Solar PV Costs Through Installation Labor Efficiency, Rocky Mountain Institute (RMI) and Georgia Tech Research Institute (GTRI), 2014
23. The Price of Power, ABC Background Briefing, 27 April 2014
24. The Price of Power, ABC Background Briefing, 27 April 2014
27. Where is the Amazon, Apple and Google of the Utility Sector?, GreenTech Media, 2014
32. Panasonic Looks to California for Lessons on Solar-Storage Integration, Green Tech Media, 13 March 2014
34. Flamingo Delivers First Platform That Enables ‘Personal’ Customer Experiences, Flamingo, 27 March 2014
35. Drinking Water Companies Launch Campaign for Primary Schools, Vitens, 30 September 2009
36. Choose Tap Initiative, Yarra Valley Water, 2013
37. http://www.youtube.com/watch?v=q3oAv0BjtN4
41. Utilities under the pump, Quantum Market Research, 2013
42. Energy Transition in Germany, Wikipedia, 2014
45. This is War: New York Coalition Launches Campaign Against Airbnb, Mashable, 12 September 2014
46. An Airbnb or Uber for the Power Grid, Business Spectator, 3 September 2014
47. Energy Deregulation Texas, 2013
49. Energy Deregulation Texas, 2013
50. Energy Deregulation Texas, 2013
51. Energy Deregulation Texas, 2013
52. Direct Energy to Acquire Bounce Energy for $46 Million, Direct Energy, 12 July 2013
53. Exelon Agrees to Purchase Pepco Holdings for $6.8 Billion, Bloomberg, 1 May 2014
54. Exelon Agrees to Purchase Pepco Holdings for $6.8 Billion, Bloomberg, 1 May 2014
Further information
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