

Social and economic inclusion is fundamental to healthy, productive societies, and for ensuring that all citizens have access to affordable essential services. Government, industry and civil society all have a role to play in the achievement of inclusive economic growth.

Contents

- 1. Introduction
- Macro trends of relevance to the energy industry
 - 2.1 Workforce transformation
 - 2.2 Inequality and disadvantage
- 3. The intersection with energy supply as an essential service
 - 3.1 Technology
 - 3.2 Digital transformation
 - 3.3 Housing
 - 3.4 Income and energy concessions
- 4. Conclusion

About this Report

- This report explores some of the macro trends shaping social and economic inclusion in Australia, including workforce transitions and increasing wealth and income
- 3 inequality. It considers the ways in which these trends
- impact on access to affordable energy supplies and participation in the technology-driven energy market transformation.
- 8 It sets out why we consider it important for AGL, as a
- 10 provider of an essential service, to actively engage in
- 2 policy dialogue on these issues and to take positive
- 4 action which contributes to the achievement of a more
 - socially and economically inclusive society. This report is the backdrop against which we will develop a Social and Economic Inclusion Policy over the coming year.

We are committed to working with all our stakeholders to improve the inclusiveness of Australian society.





1. Introduction

AGL is the provider of an essential service. Millions of Australians rely upon the energy supply industry to provide electricity and gas to their homes and businesses. This service allows us to heat our homes, cook our meals and run our businesses. Access to affordable energy is the cornerstone of modern life.

Australian society is changing and it will be necessary for the energy industry to navigate this change effectively if we are to enjoy a reliable, affordable and increasingly environmentally sustainable energy supply. Workforce composition is changing, there are concerns about increased automation of low-skilled jobs, and income and wealth inequality is becoming a concern within many developed nations.

Inclusive economic growth is something that all nations of the world have committed to through the United Nations Sustainable Development Goals (SDGs). The goals of 'end poverty' and 'reduce inequalities' require governments to work with businesses and other parts of civil society to deliver social and economic inclusion. The G20 has also committed to a Financial Inclusion Action Plan.

Traditionally, businesses have focused their commentary and public engagement on specific aspects of government policy that relate directly to their business. We contend that, as a consequence of global commitments such as the SDGs, businesses will increasingly have to participate in policy debates that are well beyond the direct supply chain of their industry. Without seeking to understand and influence broader societal and economic structures which are the underlying causes of social and economic exclusion, it will be more difficult to achieve the enduring changes required to ensure all customers have equitable access to essential services, including energy. Businesses have an obligation to work with all stakeholders to build a better society. It is in this context, and as a provider of an essential service, that AGL presents this report.

Social and economic inclusion is a vital prerequisite for us to supply affordable and reliable energy to all our customers.

Our industry has an obligation to work with our customers to ensure that they can enjoy the comfort of a warm house, cooked meals and hot showers. We do this not simply because it is the right thing to do, but because our shareholders expect us to manage material business risks.

This report presents some of the trends that we believe civil society needs to consider within the prism of social and economic inclusion. Research demonstrates that societies that are more inclusive are happier, healthier and more productive. We present evidence about emerging risks to an inclusive society that we think present a platform for further discussion with our stakeholders.

We do not contend that solving some of these emerging problems is solely the responsibility of government.

Business and civil society must work together with government to ensure that evidence based policy continues to deliver better outcomes for all citizens.

At AGL, we have established our Affordability Initiative and A Fairer Way programs (outlined in more detail overleaf). These are aimed at addressing customer hardship within the energy sector. We have more work to do though, and this report represents the next step in that journey.

Over the next 12 months, we will be developing a Social and Economic Inclusion Policy, in consultation with our stakeholders. By working together, we hope to be able to make Australian society more inclusive. Doing so is in the interests of our customers, employees, shareholders, governments and Australia's population more broadly.

This report is broken into four main sections: Section 2_outlines some of the macro trends that are relevant to the energy industry; issues specific to the energy supply chain are presented in Section 3; with concluding remarks, recommendations and next steps presented in Section 4.

1. Introduction continued

Affordability Initiative

In December 2014, we launched our Affordability Initiative after consultation with community and consumer group leaders.

The initiative involved the following key commitments:

- Improve the way we work with our customers
- Invest \$6.5 million over three years to support hardship customers
- Target early intervention to support vulnerable customers
- Support policies which enhance competition of offers
- Improve comparability and transparency
- · Deliver clear customer choice
- Offer direct contact for financial counsellors and community workers
- · Provide easy to find assistance.

To date the committed funds have been allocated to independent financial counselling services, payment incentives and debt relief programs, energy saving partnerships and community outreach.

A Fairer Way

The A Fairer Way package, announced in March 2017, involves the introduction of tailored products available to our most vulnerable consumers who are struggling to make ends meet. The changes are aimed at delivering fairer outcomes for all consumers and to encourage engagement with the competitive retail energy market.

Under A Fairer Way:

- Concession card and hardship program customers are not charged late fees
- Customers participating in our hardship program, Staying Connected, will be offered guaranteed (non-conditional) discounts
- We are writing to customers with a registered concession card who remain on 'old' standing offers, offering to assess their needs and move them to a better plan
- Victorian customers on a Standard Retail Contract who receive a government energy concession will also automatically receive a 15% discount off their electricity usage charges, applying from 5 March 2017.



2. Macro trends of relevance to the energy industry

There are many trends which require consideration if Australia is to build a socially and economically inclusive society. We have considered two critical trends that indicate increased effort may be required to achieve greater levels of inclusion: workforce transformation; and inequality and disadvantage.

2.1 Workforce transformation

Economic and technological changes are already having a profound impact on the ways in which we work. Automation, flexible working arrangements and increased connectivity within globalised labour markets are creating new opportunities for some Australian workers to have greater control over what work they do, and how and when they do it. Those who have access to transferable and adaptive skills (such as digital and financial literacy, innovation and project management) will be best placed to capitalise on the new work opportunities presented.

However, benefits of this new revolution in work do not accrue equally through society. We have already seen traditional 'blue collar', manual jobs, as well as routine 'white collar' clerical jobs, lost to automation.

Workers who do not have access to tools, training programs or environments which allow them to learn the skills to equip them to meet the challenges of the new economy are at risk of unemployment or underemployment.

Automation and technology

Concerns that machines would spell the 'end of work' have existed since the Industrial Revolution. While disruptive technologies at that time made some (particularly unskilled and routine) jobs redundant, they proliferated many new types of jobs. Fast-forwarding 200 years, the Australian economy is undergoing major changes due to automation and connective technologies. More complex routine and non-routine jobs are under threat of being replaced by automation; 40% of our current jobs are considered to be at high risk of automation over the next 10 to 15 years.¹

Technological advancements and automation have also increased globalisation of the workforce. This provides both opportunities and risks for Australian workers. McKinsey have stated that 11% of worldwide service employment could be performed remotely. In Australia, the globalisation trend has been observed already. For example, over the period 1999 to 2014, jobs in Australia in the computer and IT sector have gone 'offshore' at a rate of 250%.²

Committee for Economic Development of Australia: CEDA. (2015), Australia's future workforce, CEDA Publication, Melbourne.

² Farrell, D. Laboissiére, M. Pascal, R. Rosenfeld, J. de Segundo, C. and Stürze, S. (2005), McKinsey Global Report,: The Emerging Global Labor Market: The Demand for Offshore Talent in Services, McKinsey Publication.

2. Macro trends of relevance to the energy industry continued

Unemployment and underemployment

The Australian economy has experienced more than two decades of economic growth. However, some groups have been unable, either fully or partially, to participate in the workforce. Groups such as unskilled youth and workers who are unable to reskill (including older males made redundant from traditional manufacturing roles), contribute to a higher level of underemployment than the Australian unemployment rate suggests. For these workers there is a real risk of being caught in a vicious circle associated with their inability to re-engage with the labour market. Policies to support their re-engagement in the labour market are considered a priority by many labour market analysts.

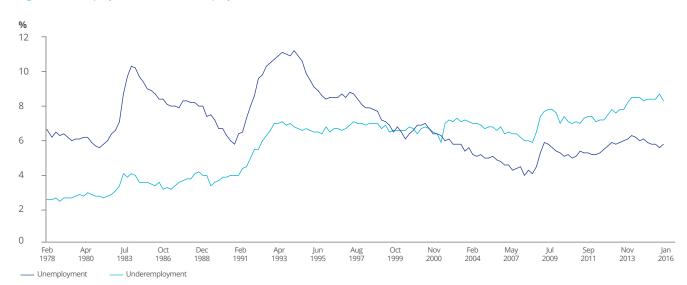
Figure 1 shows how the unemployment rate can be misleading when considering whether economic conditions are delivering opportunities for all the workforce. While the unemployment rate has been steadily declining since the early 1990s recession, underemployment (the proportion of the workforce who want to work more hours but cannot find sufficient employment) has steadily increased and is now over 8%. The proportion of people in the workforce who are either unemployed or underemployed is close to 15%. Over time, such inequality in workforce opportunity may manifest in broader inequality. As such, underemployment is a key issue facing society today.

Flexible working

Advancements in technology, underpinned by high-speed, ubiquitous broadband internet, will have profound implications on how and when people work. Connectivity to high speed internet will allow more flexibility for working from home, with some projections indicating that that up to one in four people may work from home, at least part of the time, by 2050.3

One growing trend is in 'non-standard' work. Known also as the 'gig economy', or 'portfolio working', non-standard work refers to the growing number of workers abandoning traditional '9 to 5' jobs in favour of working independently on a task-by-task basis for various employers. Across the OECD, more than 50% of the jobs growth since the 1990s has been in roles that are temporary, part-time or self-employed. However, this trend is not evenly observed between genders: a quarter of men but 40% of women are in non-standard employment, mainly due to strong gender imbalances in part-time work.4





Source: Australian Bureau of Statistics

IBISWorld. (2012), A snapshot of Australia's digital future to 2050, IBISWorld, commissioned by IBM Australia, Available at http://www-07.ibm.com/ibm/au/digitalfuture/ accessed

Organisation for Economic Cooperation and Development: OECD. (2015), In It Together Why Less Inequality Benefits All, OECD Publication, Paris.

2. Macro trends of relevance to the energy industry continued

An ageing workforce and slow wages growth

The workforce of the future will look very different from today, with Australians living and working for longer. As the population ages, the 'dependency ratio' (which measures the proportion of the population who are children aged under 15 and older people aged over 65, relative to the number of 'working age' people aged 15 to 64) will increase – from 52 in 2016 to an estimated 61 in 2050.⁵ This decline in participation in the workforce poses an economic challenge for Australia, as the demand for services, including healthcare, will increase. If these trends continue, the cost of delivering government services such as healthcare may outstrip government revenue collection and economic growth.

The projected decline in workplace participation rates due to an ageing workforce, combined with declining terms of trade since the end of the 'mining boom', may lead to a plateauing or decline in real national incomes. Key to meeting these economic and social challenges will be enhancing productivity growth (including embracing new and innovative technologies, and increasing the value of exports), and participation in the labour market (skilling and reskilling workers to provide additional value to the economy).

Education, skills, reskilling

Automation, globalisation and more flexible work are expected to provide new job opportunities in the workforce, but they also present risks for mainstream education and skills training. One study has shown that around 70% of young Australians are starting their first jobs in roles that will either look very different or be completely lost in the next 10 to 15 years, due to automation. Our learning institutions will face ever greater challenges to provide education and training to equip workers, especially young people, with the skills required to meet the jobs of the future economy. Future-relevant skills such as digital and financial literacy, project management, and critical analysis and innovation, will be more transferable, and arguably more valuable, than technical knowledge.⁶

However, unequal access to skills training (and re-skilling) may lead to rising inequality, as wages for skilled workers increase due to higher demand, while unskilled workers are forced to compete with low cost automation. This trend of inequality between skilled and unskilled workers has already been observed: over the last 15 years, incomes of the top 10% have grown 13% more than the bottom 90%, and incomes of the top 1% have grown 42% higher.⁷

2.2 Inequality and disadvantage

Identifying and defining 'vulnerable' people or households has remained a long-standing challenge for many sectors and industries. Vulnerability can be financial, physical, psychological – it can be experienced for short periods of time or become extended or even permanent.

Recognising that vulnerability often stems from inequality and disadvantage, we explore three important spheres of growing inequality and disadvantage in Australia and the implications this may have on wellbeing, resilience and an inclusive community.

Income inequality and asset distribution

The works of Stiglitz and Pikkety have been instrumental in highlighting the growing gap between extreme wealth and poverty. The share of income going to the top 1% of income earners has increased since the 1980s in the US, UK, Canada, Ireland and Australia. In developed and developing economies alike, the poorest half of the population now controls less than 10% of wealth. Income inequality has the profound potential to impact social cohesion and result in a fracturing of the political economy. The World Economic Forum has flagged the potential need for broader reforms to address the lack of solidarity between those at the top of national income distributions and those lower down.⁸

In Australia, the Australian Council of Social Services (ACOSS) has stated that inequality is higher than the OECD average, with nearly a doubling of the share of national income going to the richest 1% from the period 1980 to 2008. Between 1988 and 2010, individual and household incomes increased substantially, however these increases were not evenly distributed, with the rate of growth higher at the top end of the distribution compared to the bottom. The primary drivers for the increase in the Gini Coefficient (a measure of inequality) over this time have been cited as: the widening dispersion of hourly wages; growth in part-time employment; and uneven capital income growth.

A person in the top 20% of income earners in Australia receives around five times as much income as someone in the bottom 20%. Demographically speaking, those households who are over-represented within the bottom 20% include older people, sole parents, people not in the labour force of working age, people born in non-English speaking countries and those reliant on government pensions and allowances.¹⁰

⁵ Australian Bureau of Statistics: ABS. (2012), 3222.0 Population Projections, Australia, Series B, Available online at www.abs.gov.au/AUSSTATS/abs@.nsf/mf/3222.0, accessed 15 May 2017.

⁶ Foundation for Young Australians. (2015), *The New Work Order: Ensuring young Australians have skills and experience for the jobs of the future, not the past,* Foundation for Young Australians Publication.

⁷ Foundation for Young Australians. (2015), *The New Work Order: Ensuring young Australians have skills and experience for the jobs of the future, not the past,* Foundation for Young Australians Publication.

World Economic Forum: WEF. (2015), *Outlook on the Global Agenda,* WEF Publication.

⁹ Productivity Commission. (2013), Trend in the Distribution of Income, Productivity Commission Staff Working Paper, Melbourne.

¹⁰ Australian Council of Social Services: ACOSS. (2015), *Inequality in Australia*, ACOSS Publication, Canberra.

2. Macro trends of relevance to the energy industry continued

Wealth distribution is also relevant. A household's wealth is a measure of its assets and liabilities and includes real estate assets, superannuation, shares and other investments. ACOSS estimates that the average wealth of households in the top 20% is around 70 times greater than the average wealth of those in the bottom 20%. The bottom 40% of households own only 5% of all wealth. A lack of wealth can be an important contributor to the lack of financial stability when income is reduced due to illness, unemployment or other factors.

Recent trends observed in the Australian housing sector and outlined in Figure 2 underscore the unequal distribution of wealth. In the 1970s, home ownership rates were relatively equal across income quintiles. Today, there are now 25% more home owners in the highest income quintile compared to the lowest quintile. In relation to home ownership, the top 20% of wealthy households also now own 80% of all wealth in investment properties.¹¹

Home ownership is not only an important asset in terms of the ability to provide financial resilience, it also has flow-on impacts with regards to the ability to engage in other product and service markets.

Amendment to the building fabric or property requires landlord consent. As Section 3 discusses, renovating existing buildings by installing energy efficiency measures or distributed generation requires the approval of the building owner. Concentration of ownership enhances split incentive problems.

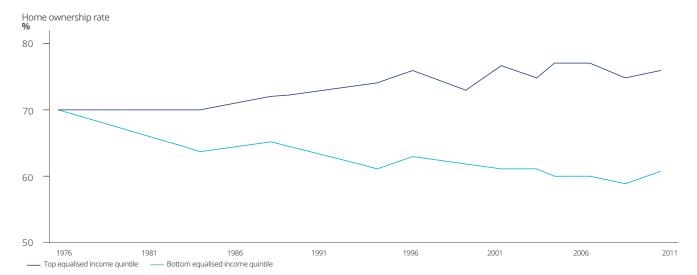
Mental illness and family and domestic violence

There are times in people's lives when they are placed at increased risk of vulnerability. Such vulnerability can be financial, psychological or physical. Two areas which have begun to attract greater attention from business, policymakers and the broader community over the past few years are mental illness and family and domestic violence.

It is estimated that 45% of Australians will experience a mental health condition in their lifetime. Mental health conditions can cause distress, place pressure on relationships, impact day-to-day functioning and also result in poor physical health. These added pressures placed on people experiencing a mental health condition can sometimes limit their ability to engage in what might otherwise be seen to be simple tasks or decision-making activities.

The second and somewhat related issue of family and domestic violence within the Australian community has been brought to the fore in recent years with the Victorian Royal Commission into Family Violence, the appointment of Rosie Batty as Australian of the Year in 2015 and a range of reports and inquiries. Significant recommendations have been handed down by the Royal Commission in Victoria, with changes required across government and business agencies.

Figure 2: Home ownership rates by income quintile



Source: Grattan Institute

¹¹ Grattan Institute. (2013), Renovating Housing Policy, Grattan Institute Report, Melbourne

¹² Australian Bureau of Statistics. (2008), National Survey of Mental Health and Wellbeing, ABS Publication, Canberra.



Of note, for businesses such as AGL, the Commission recommended:

- amending the National Credit Code to include family violence as a ground for financial hardship and developing an awareness campaign to ensure that both consumers and credit providers are aware of their rights and responsibilities; and
- encouraging the Victorian Energy and Water Ombudsman, the Commonwealth Financial Services Ombudsman and the Commonwealth Telecommunications Ombudsman to publicise the availability of their dispute-resolution processes to help victims of family violence resolve disputes with service providers in relation to debts and liabilities incurred in the context of family violence.

Some businesses have taken significant steps to improve practices. At AGL, we introduced our first family and domestic violence policies for employees and customers in 2015 to add protections for employees and for customers impacted by family violence. This includes increased leave for employees and faster transfer to support for customers, with password protections added to accounts to improve privacy protection, debt relief available on a case-by-case basis and referral to the 1800 RESPECT line for customers to receive further information and support.

Cultural diversity

A cohesive society is one which provides equal opportunity and treatment of all people, regardless of gender, age or ethnicity.

Building a society where Australians are not discriminated, vilified or outcast because of race or religion is equally important.

In 2015, an estimated 28% of the Australian population was born overseas – an increase from around 4.45 million people in 2001 to 6.7 million in 2011. The largest group of people born overseas has for an extended period been people from the United Kingdom, making up 21% of all overseas born living in Australia. While the overall increase in Australians born overseas has been growing slowly, the ABS cites the largest numerical increases over the 10 years to 2011 as being from China (95,000 in 2001 to 295,000 in 2011).¹³

Nearly one in five people speak a language other than English at home. The most common language spoken at home other than English is Mandarin (1.6%), followed by Cantonese (1.3%), Italian (1.5%), Arabic (1.4%), Greek (1.2%) and Vietnamese (1.1%).

For several years, the Ethnic Communities Council NSW (ECC) has been highlighting the importance of education and information programs to support culturally and linguistically diverse (CALD) communities. Through detailed surveys, the ECC has found that while there was a general increase in knowledge about the electricity market in recent years, these groups are less knowledgeable and active within the energy market than those outside of CALD communities.

The ECC also found mixed responses regarding how and in what language different groups preferred to be communicated with. There is a general preference for mail delivery by all groups apart from Mandarin speakers, who preferred electronic delivery. There may also be lower awareness and engagement around new energy technology offers and products such as solar PV and energy efficiency. There are clearly varying needs and preferences of different cultural groups. Businesses and governments need to consider these preferences in engagement and communications.

The Scanlon-Monash Index of Social Cohesion measures the extent of social cohesion in Australia based on public opinion around five domains of social cohesion. The authors note that while the key findings point to overall stability, there is cause for concern in relation to 'relatively high levels of negativity towards Muslims and an increase in the proportion of people experiencing discrimination on the basis of skin colour, ethnicity or religion'. Furthermore, the survey finds that distrust of the political system appears to be increasing. Respondents indicated concern about the lack of change on social and environmental issues which have broad community support.¹⁴

¹³ Australian Bureau of Statistics. (2013), Social Trends, Available at: http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4102.0Main+Features30April+2013, accessed on 21 May 2017.

¹⁴ Scanlon Foundation. (2016), Scanlon-Monash Index of Social Cohesion, Available at: http://scanlonfoundation.org.au/wp-content/uploads/2015/10/2015-Mapping-Social-Cohesion-Report.pdf, accessed online on 30 May 2017.



There are emerging trends around inequality within Australian society that, if left unaddressed, could result in a deterioration in economic and social inclusion. Within the energy sector, there are four main points of intersection with these emerging trends: technology; digital transformation; housing; and income and concessions. It is in these areas that AGL has a strong role to play in working with government and civil society towards improving social and economic inclusion.

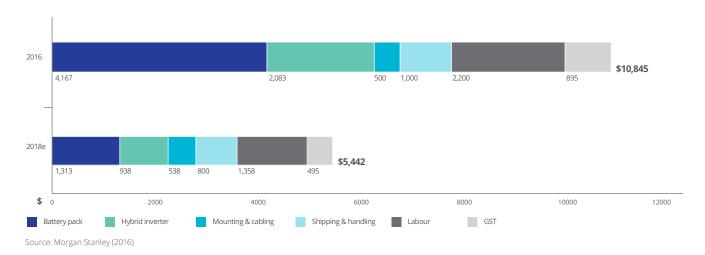
3.1 Technology

The relatively rapid development and deployment of small-scale distributed energy technologies within the energy sector over the past decade is changing the way energy is being both produced and consumed. From a residential perspective, small-scale solar PV has exceeded all prior expectations in terms of installed capacity. This trend has been influenced by a range of factors: rapid cost declines; increased appetite to take up new technologies; generous subsidy schemes; a desire to have less impact on the environment; and rising energy bills which increase the incentive to reduce grid-connected consumption.

Currently, there are over 1.6 million small-scale solar systems installed on Australian rooftops. If we go back just ten years to 2007, the number of installations occurring in a calendar year was around 3,480. Four years later in 2011, the number of solar installations in any calendar year peaked at 360,745, more than 100 times the levels seen in 2007. Now, installation volumes have stabilised to around 130,000 in 2016.¹⁵

There is now significant discussion about the prospects of battery storage technology within Australian homes and businesses. Some analysts are forecasting significant cost reductions over coming years. For instance, Morgan Stanley have forecast installed cost reductions in the range of 40% over two years to 2018, dropping to around \$5,440/kWh in 2018 (see Figure 3). While uptake of batteries has been slow, with only a few thousand systems installed to date, estimates from the Australian Energy Market Operator (AEMO) show installed capacity in the residential sector reaching over 1,000 MWh by 2024 (see Figure 4).

Figure 3: Residential battery installation costs



¹⁵ Clean Energy Regulator (2017), Small-scale installations by installation year, Available at: http://www.cleanenergyregulator.gov.au/RET/Forms-and-resources/Postcode-data-for-small-scale-installations, Accessed online on 26 May 2015.

Battery storage has the potential to enable customers to be more self-reliant and to maximise the benefits of solar systems – using energy when the sun is not shining.

Not only does this present a major engineering challenge for a network which was designed to only send electrons in one direction – from a generation site to customers – it also presents significant questions of social equity.

Electricity retailers must comply with the National Energy Consumer Framework (NECF) or equivalent regulations, including maintaining supply for customers who are having difficulty paying their bills. Customers are guaranteed access to an offer of supply for electricity and gas, minimum contractual terms, access to ombudsman and dispute resolution services, and energy-specific marketing rules that ensure customers provide "explicit and informed consent" before entering into a contract.

Retailers must provide flexible payment options, hardship programs, and energy efficiency advice, and strictly enforced rules govern how and when energy services can be disconnected. While these requirements typically apply to the 'sale of energy', they do not easily accommodate the proliferation of behind-the-meter technologies such as solar PV and battery storage.

There is also a question about how to fairly price grid infrastructure as some consumers use less or no grid supply, while another group of customers remain entirely dependent on the grid. A significant amount of work lies ahead for policymakers and regulators to ensure that network pricing is fit for purpose in this new environment – with many calling for the introduction of more cost-reflective pricing to facilitate continued innovation, whilst ensuring that certain groups are not left carrying a disproportionate burden of existing infrastructure costs.

Installed capacity

MWh

8,000
7,000
5,000
4,000
3,000
1,000 -

Figure 4: Total installed battery storage capacity in the NEM

Source: AEMO (2016)

0

Residential battery storage

2016 2017

Business battery storage

3. The intersection with energy supply as an essential service continued

3.2 Digital transformation

Over the past decade, the world in which we live has been transformed by digital technologies. Instant messaging, email, video phone calls and social media are changing the way in which people interact with each other and with businesses. Australians have been significant adopters of new technologies. The proportion of Australians using online banking (82%) is significantly higher than the global average (44%). Australians are also enjoying the benefits of eCommerce with 49% of people using digital technologies to engage in the financial services market and 11% using online services to order their groceries.¹⁶

Australia's highly digitally-engaged consumers, increasingly familiar with the digital customer experience available through online banking and apps, have begun to expect similar experiences and services from companies in other sectors.

Companies are increasingly assessed by consumers through the prism of their digital experiences regardless of underlying capital, infrastructure or market differences.

In the energy sector, adoption of digital technologies has been slower. This is primarily due to the historical reliance on analogue meters. For most consumers, consumption has been measured every three months through physical attendance at each site (by a meter reader). Quarterly billing provides limited opportunities for customers to manage their usage in real time.

The development of cost-effective digital meters, which can be read remotely and provide close to real-time information about energy usage, creates significant opportunities for consumers: real-time alerts about energy consumption; more accurate billing; the ability to use web portals to easily access timely account and usage information; and personalised messaging and targeting of products and services suited to particular household consumption profiles.

In a fast evolving competitive landscape there are incentives for businesses to not only make data available to customers, but to do so in ways that are useful and valued by them.

The advanced energy services on which the market is increasingly competing now commonly include products and services that are targeted at providing customers greater insight into, and the ability to better manage, their energy usage behaviour. This empowers customers to make informed choices and capture the value of those choices.

Access to energy consumption data can also better enable customers to assess what products and services best suit their needs. While there is a clear rationale for establishing minimum obligations for the provision for energy consumption data, governments and regulators should not seek to prescribe tools or solutions which 'crowd out' or replicate solutions that the competitive market is already delivering.

There are also sensitivities around access to energy consumption data, particularly as digital metering vastly increases the granularity of consumption data that is generated. Engendering consumer trust will be fundamental to ensuring that the most beneficial use of data can be made. In addition to utilising data to offer products and services that customers value, building consumer trust involves strictly maintaining the security of such data and ensuring that customers determine who else is permitted access.

In this environment, privacy policies and principles are important. We have developed data policy principles to meet the new demands of consumers and to ensure trust can be built within this new technology environment.

However, not all customers will have the capacity to engage with new digital technologies. In 2014/15, 14% of Australian households did not have access to the internet at home. In It can therefore be inferred that a significant number of Australian households would not be able to access the full benefits of the adoption of digital technologies within the energy sector.

AGL has recognised this fact through initiatives such as exemptions from paper billing fees for concessions customers and any customer who informs us of their inability to access electronic bills ('ebills'). However, there is a broader issue for society around lack of access to complementary technologies within the context of the provision of an essential service. For example, many would argue that it is unfair for Australians without regular access to the internet to be restricted from accessing the benefits of digital energy technologies.

AGL Data Policy Principles

- AGL is committed to managing customer data lawfully and responsibly, and to protecting its unauthorised access.
- AGL will provide customers (and their authorised representatives) easy access to their energy consumption data.
- AGL will continue to develop products and services that enable customers to 'make sense' of their energy consumption data and better monitor and manage their energy use.
- AGL will use customer insights obtained from customer data to create innovative products and services for customers that will enhance the customer experience.
- AGL operates as a custodian of customer data and will ensure that customers retain control over who else is permitted access to that data (other than regulated entities for market settlement and other regulated purposes).
- AGL is committed to responsibly engaging with all our stakeholders (customers, investors, communities, policymakers and employees) to ensure that our business, and the broader energy industry, continue to collect, use and protect customer data in a manner that is consistent with community expectations, and is in the best interests of customers.

Customer data means: personal information of any AGL customer within the meaning of the Commonwealth *Privacy Act 1998*; and metering data as explained by the National Electricity Rules as data collected from, or generated by an electricity consumption meter.

Further information including about how AGL complies with its legislative requirements can be found in the AGL Privacy Policy.

¹⁷ Australian Bureau of Statistics: ABS. (2016), Household Use of Information Technology, Available at: http://www.abs.gov.au/ausstats/abs@.nsf/mf/8146.0, accessed online on 30 May 2017.

3. The intersection with energy supply as an essential service continued

3.3 Housing

Home tenure (i.e. whether the home is owner-occupied or rented) is an increasingly important factor impacting the ability of customers to engage with the new energy market.

As technologies and product offerings evolve – solar PV, battery storage, home energy management systems and electric vehicle charging infrastructure – it will be far easier for households who own their own home to embrace these opportunities.

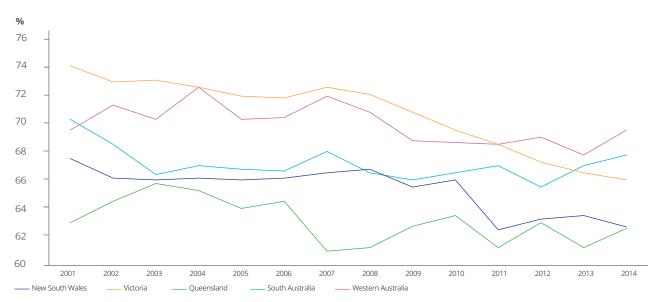
Renters will find it far more difficult due to the split-incentive problem.

At its simplest, the split-incentive problem highlights that the costs of reducing energy consumption (e.g. through the adoption of solar PV, batteries or energy efficiency devices) will be incurred by the home owner whereas the benefits accrue to the tenant through reduced energy bills. Changing the building fabric through installation of solar PV, improved insulation and general measures to improve efficiency becomes inherently difficult due to this split-incentive problem. There are concerns about the current lack of transparency for tenants around future likely energy costs, but also the very limited bargaining power of tenants to address the efficiency of a property due to the primary need of securing shelter.

Figure 5 shows the steady decline of the proportion of Australian households who are home owners. The decline in home ownership has not occurred uniformly across the country, with declines being most acutely experienced by younger Australians (25–44 years old) and those within the lowest income quintile.¹⁸

The trend towards a decline in home ownership widens the impact of the split-incentive problem to an increased number of households. A recent report by the Queensland Council of Social Service (QCOSS) has found that despite energy being one of the most significant ongoing household costs after moving into a property, 41% of Queensland renters were found not to know whether their home was insulated, compared to 6% of owner occupiers. Similarly, 75% of respondents to the QCOSS renters survey did not consider energy efficiency or energy related information prior to entering into their current lease. Only 11% of Queensland rental properties have solar panels, compared to a state average of around 30% of all Queensland homes with solar installed. The remaining 89% indicated that they did not intend to install solar within the next two years, with 84% citing their status as renters as the main reason for this.¹⁹





Source: Melbourne Institute HILDA Survey

¹⁸ Grattan Institute. (2013), Renovating Housing Policy, Grattan Institute Publication, Melbourne.

¹⁹ Queensland Council of Social Service: QCOSS. (2016), Choice and Control: The experiences of renters in the Queensland energy market, QCOSS Publication, Brisbane.

3. The intersection with energy supply as an essential service continued

The growing evidence as to the distributional impact of new technology uptake is clear – the overwhelming proportion of new technologies are flowing to customers who own their own home and can make unilateral changes to the building fabric. Unfortunately, there are misconceptions about which demographic groups are benefiting and which are not. The accumulation of benefits in the energy market is generally correlated to home ownership, not necessarily income levels. This is shown in Figure 6.

Utilising AGL's customer data base, around 90% of AGL customers in Queensland with a registered concession card own their own home. Approximately 28% of these customers have a solar system installed. This compares to around 57% of customers on AGL's hardship program (Staying Connected) owning their own home. Among AGL's hardship program customers, only 6% have installed a solar PV system.

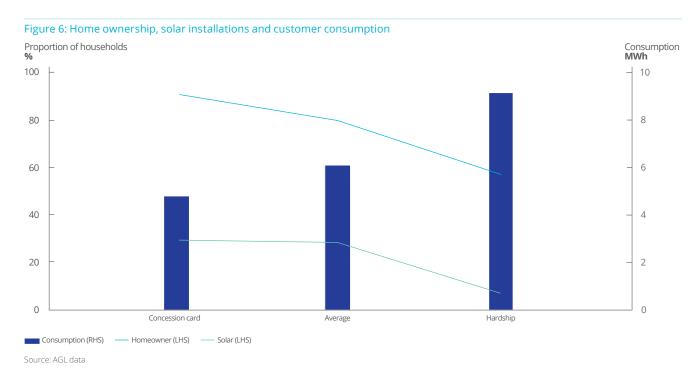
Concession card holders, commonly thought to be most in need of additional support from policymakers (and this may well be the case for some low-income households) have the lowest grid-connected electricity consumption profiles, the highest levels of home ownership and the highest rates of uptake of new technology such as solar. In contrast, customers participating on retailer hardship programs display quite the opposite characteristics – having the lowest levels of home ownership and as one might expect, the lowest levels of solar installed. These results highlight the importance of considering the implications of various eligibility criteria for government energy efficiency and solar programs.

As noted in Section 2, wealth accumulation in Australia is accruing primarily to property owners. This is evidently due not only to the capital accumulation associated with the property itself, but also the greater ability to control other household costs such as energy. Owning one's own home allows the household to engage more proactively with new energy technologies.

The compounding nature of home ownership in relation to new energy technologies is likely to become more of an issue with the emergence of new technologies such as battery storage. Home ownership and access to capital (i.e. funds to purchase the technologies) are clear barriers to equitable adoption.

Policymakers may have a small window within which to act to ensure that the costs and benefits of operating Australia's electricity system are more equitably distributed.

Such action is important if we are to avoid spiraling inequity in electricity bills between owner-occupiers and tenants over the coming decades.



3.4 Income and energy concessions

The primary income support available from governments for customers struggling with their energy bills is provided through state-based energy concession frameworks. There are two broad groupings: primary concessions; and crisis support payments.

The primary concession is a rebate (either a flat or variable rate) on a customer's energy bill, paid where a customer meets the eligibility criteria established by government. This measure is deemed to be a direct ongoing subsidy to reduce the ongoing cost of the service for vulnerable customers. Crisis support payments are a one-off payment for temporary and unexpected circumstances. For example, the Utility Relief Grant in Victoria is one form of these crisis support payments.

The concessions framework across Australia varies widely in eligibility, accessibility and application. The maximum payments available to eligible energy consumers by state are presented in Table 1.

There are clear issues associated with some aspects of the frameworks presented in Table 1. These include: barriers to uptake; administrative complexity; lack of equity in relation to payments; lack of equity in relation to eligibility; and durability in the context of a changing market.

• Barriers to uptake: Low levels of literacy for some consumers, combined with complex application processes, often result in low levels of uptake of energy concessions, even where customers are eligible. Form-based systems have the lowest levels of uptake. AGL analysis has shown that only between 35-45% of application forms mailed to customers are being returned and approved by relevant government departments. Forms for some states are so complicated that they can take up to six A4 sized pages of information requested from customers. Low levels of awareness in the community of the existence of energy concessions further indicates that retailers, community sector and government should be developing a more co-ordinated awareness program to ensure consumers are gaining access to the support for which they are eligible.

Table 1: Energy rebates by jurisdiction²⁰

Maximum rates (electricity and gas) by jurisdiction	NSW	Vic.	Qld.	SA
Primary concession per customer	Low Income Household Rebate E: \$235 (capped) G: \$90 (capped) Family Energy Rebate \$150 (capped) \$15 (capped for LIHR customers)	Annual electricity concession 17.5% (capped at \$406) EEC not included Winter gas concession 17.5% (capped at \$232) EGC not included	Electricity and gas rebate E: \$341 (capped) G: \$71 (capped)	Energy bill concession \$218 (capped)
Crisis support (form based, max available)	EAPA ²¹ \$500	URGS ²² \$500 per fuel	HEEAS ²³ \$720 across both fuels	EEPS²⁴ \$400
Maximum combined available	\$840	\$1,638	\$1,132	\$618

²⁰ E: electricity; G: gas; LIHR: Low Income Household Rebate; EEC: excess electricity concession; EGC: excess gas concession

²¹ Energy Accounts Payment Assistance Scheme

²² Utility Relief Grant Scheme – only available every two years

²³ Home Energy Emergency Assistance Scheme – only available every two years

²⁴ Emergency Electricity Payment Scheme

- Administrative complexity: A major concern for retailers has been the administrative complexity of delivering different concession types and calculations in each state. Not only does this require different systems and processes for every state, it also requires training of customer service operators to ensure the right information is passed on to customers about the 20-plus different concession types around the country. This complex system adds costs and confusion for those customers being supported. There is no evidence that the energy affordability challenges for a vulnerable customer in Queensland are any different for a vulnerable customer in Victoria.
- Lack of equity in relation to payments: The primary concession is delivered as either a 'flat amount' or a 'flexible (percentage-based)' approach. In practical terms, this means some consumers receive a flat rebate (e.g. \$235/year) applied to their energy bill and some receive a rebate which is a percentage off their total bill (e.g. 17.5% rebate on the total bill). However, the primary criteria for this is where the consumer lives. The flat rebate approach is used in Queensland, New South Wales and South Australia. Many stakeholders argue that this approach is not reflective of the unique circumstances of the household. Households with high numbers of occupants (such as children) are likely to be more vulnerable under this approach.
- Lack of equity in relation to eligibility: Current concessions
 framework eligibility criteria also create issues of equity. There are
 different eligibility criteria applied in each state. Where possible,
 eligibility criteria should be based upon demonstrated need.
- of new technologies such as solar PV and battery storage improve the extent to which some households can reduce grid-connected energy demand and in turn, energy bills. Within this context, the available government support frameworks will need to adjust to ensure that those who are unable to make such investments aren't proportionately disadvantaged. The adoption of a 'flexible' or 'percentage-based' approach to energy concessions would enable a fairer distribution of available government support, with those able to reduce their energy bills through new technology investments not continuing to receive as much concession support as those who, for example, might live in regional areas in rental properties with limited capacity to reduce energy costs.



4. Conclusion

This report has highlighted some of the emerging trends that indicate Australian society may be less socially and economically inclusive than it has been in the past. Widening income and wealth inequality, a reduction in the number of households who own their own home and increased rates of underemployment are creating challenges for policy makers, businesses and civil society.

Australia, like all other nations, has committed to the United Nations Sustainable Development Goals (SDGs). The goals of 'end poverty' and 'reduce inequalities' effectively require the Commonwealth and State governments to work with businesses and other parts of civil society to deliver social and economic inclusion. A key part of this work will no doubt be addressing the trends highlighted in this report. AGL has become a signatory to the United Nations Global Compact (UNGC) which means we too have a role to play in moving towards the achievement of the SDGs.

We believe that all ideas should be on the table. In the context of 'reducing inequalities', it is worth noting that other countries are trialling innovative ways of delivering on the SDGs. For example, Finland has implemented a trial of the 'Universal Basic Income' concept. This has evoked strong feelings of both support and opposition. Given limited resources, it is important that policy be based upon sound evidence and data.

It is important that Australian society finds ways to meaningfully engage, support and deliver equitable services to all Australian households.

There are a range of sector-specific reports which provide insight into some elements of the challenge. These reports provide recommendations from experts as to how specific organisations are best placed to address certain aspects of the challenge. However, there is yet to be a comprehensive or co-ordinated strategy from industry or government to improve social and economic inclusion more broadly.

These trends are very important for our business. As a provider of an essential service, our customers represent the full spectrum of society. There are direct implications for the sustainability of our business where whole segments of our customer base have difficulty effectively engaging with or affording essential services, including energy. For our customers, the risk of continual debt accrual is real and present where trends indicate that society may be less socially and economically inclusive than it has been in the past.

The lack of universal agreement on a definition of who is 'vulnerable' within the context of an essential service has resulted in a range of proxies emerging: the possession of an eligible concession card; the level of income; someone who may be experiencing family violence or mental illness; or someone who may be accessing emergency relief from community agencies. While many of these proxies may be deemed appropriate for certain circumstances, further work is required to ensure the needs of 'vulnerable' customers are addressed.

Over the next year, we intend to develop a Social and Economic Inclusion Policy. Much like our Greenhouse Gas Policy it will outline both: the commitments we intend to make over the long-term to improve our business operations on behalf of our customers; and the key components of our approach to public policy advocacy. It will build on the existing Affordability Initiative and A Fairer Way commitments we have already made. We are committed to working with all our stakeholders to improve social and economic inclusion within Australian society.