Australia—United Kingdom Chamber of Commerce

RETHINK, RESET 2021

THE ROAD TO NET ZERO
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Chamber Foreword
The Australia—United Kingdom Chamber of Commerce is the UK’s leading membership organisation connecting the business community and professionals with interests in both Australia and the United Kingdom. With a diverse membership and network as well as trusted partnerships across the Australian and British Governments, we are the platform for industry to access and influence Australian—UK business intelligence, audiences, and trade opportunities.

It is a privilege to be able to share with you the launch of our second Rethink, Reset 2021 report, ‘The Road to Net Zero’. Following the success of the first report in our Rethink, Reset series, ‘Building Back Better in Infrastructure’, we continue to explore how industries in Australia and the UK are rethinking and resetting the road ahead to create sustainable and creditable outcomes for the good of business and the environment.

Through the devastating consequences of the pandemic, many organisations have been forced to reflect both inwardly in respect of their operations and outwardly on societal demands. The corollary of this, is that industries are not just building back better to post COVID conditions but driving forwards to ensure resilient and positive changes are made.

With COP26 in Glasgow scheduled for the beginning of November, now is a critical period in which industries are setting out their targets to help tackle climate change, invest in a greener planet and reach carbon neutrality. We are thrilled to be sharing with you the insights from our Members and industry leaders across the energy sector focussing on research and development, manufacturing, financing, people, and planning and design.

Now is a critical period in which industries are setting out their targets to help tackle climate change, invest in a greener planet and reach carbon neutrality.

Joanne Holland
Executive Director, Australia - UK Chamber of Commerce
Driving the change for greener business, the key takeaways from this report are:

• Developing the relationship between education, government and business to work together to rethink and help redesign our infrastructure to ensure the success of implementing greener energy and to create innovative solutions. Whether this be through the development of offshore wind farms, rolling out electric vehicles or finding additional back-up storage; our land will need to adapt to ensure its survival.

• Businesses are seeing society as a driver of change in addition to government policy and are responding by changing their manufacturing and operating processes and their supply chains to maximise their green credentials.

• The necessity of reviewing each stage within a project to ensure it matches industry goals of reaching net-zero and additional climate targets. These changes trickle into society, where our behaviours, habits and views become equal changers and help drive new policies within government.

• Investment within renewable energy projects remains strong because of government subsidies and whilst this is expected to continue, financial institutions are experiencing the economics of projects operating independently of subsidies and drawing on other innovative financing methods.

• For many companies, tackling climate change has been on the radar for decades. What’s changed is the demand from society and governments in the last few years to ensure targets are being met with actions. Actions, that are guided by the principles set out in the Paris Agreement and that will be renewed later this year at COP26.

• The Environment Social Governance (ESG) of a company is being scrutinised at all levels by employees, lenders, clients, and policy makers. This creates increasing demand for “green” skills in most markets where supply to this sought after talent is limited. To make sure goals are being met and standards are being maintained, industries will not only need to recruit top talent but allow room for continual learning and growth in expertise.

Packed with candid responses, case studies and takeaway lessons, we hope you find the report an ongoing resource into how the leaders of today are helping to change business for the better. The transition to renewable, greener energy may not be new but it has never been more critical.
Research and Development
There’s often talk of a holistic framework needed for renewable energy resources, what does this mean and how has COVID effected this framework?

The energy trilemma talks about the requirements for a framework that provides affordable, secure and low carbon energy. In our experience there is definitely not a one size fits all when it comes to renewable energy resources.

Geographic context and available resources have a huge influence on the choice of renewable energy technology type, not to mention competing land use issues. What may work in a remote central Queensland location (such as large-scale solar photovoltaics), will unlikely work in built up areas in the United Kingdom. The UK location may be better suited to agricultural production or other high value sectors and the renewable energy resource best situated offshore.

The social licenses to operate this framework are critical, particularly with the scale required as this will require individuals to think differently about the way they use energy today. Everyone is aware that increased renewable energy requires additional forms of storage, whether it is connected into the grid or is distributed – either way, back up storage will be essential to ensure security of supply.
How is the University driving change in the energy sector in Australia through its innovation and research programmes?

UQ is driving change through a range of different mechanisms, including research, education and partnering with industry and the broader community. For example, the 64 MW UQ Warwick Solar Farm is helping the University to off-set all of its electricity by generating as much or more electricity each year than the it needs.

In addition, the behind the meter 1.1MW/2.15MWh Tesla Powerpack system provides multiple services to help UQ manage and reduce their energy costs, including arbitrage, peak demand lopping, energy price risk hedging and frequency control ancillary service. These projects provide excellent test beds for research and innovation that helps inform our industry and government partners of the real challenges of integrating renewable energy systems into the grid.

UQ is also working closely with industry partners on delivering a hydrogen strategy that will make a substantial reduction in Australia’s emissions profile, including a new hydrogen bus trial in collaboration with the Queensland Government.

How can technology bridge the gap towards being more environmentally sustainable?

We are working across all technology readiness levels to ensure innovative solutions are on hand. Recently, UQ researchers set a world record for the conversion of solar energy to electricity via the use of tiny nanoparticles called ‘quantum dots’. The ‘quantum dots’ pass electrons between one another and generate electrical current when exposed to solar energy in a solar cell device. Our work is innovating the next generation of solar energy electricity.

Another example of using technology is the increased attention on hydrogen from renewable energy using electrolysis. We believe the integration of new science and technology in society is fundamental when developing new methods or research into environmental sustainability and beyond. Each technology is not without its controversy and exploring the social license to operate new technologies is essential to bridge the gap of technology integration.

Similarly, analysing a range of scenarios which range from 100% renewable energy to one that includes significant carbon capture and storage to assess the progressive impacts on emissions, infrastructure, costs, employment, land use, air pollution. All of which is the focus of Net Zero Australia, which at its heart is set to identify the optimal pathways for Australia.
How is the University working with industries to shape teaching and research pathways for tomorrow?

The University has a range of different partnerships with industries that help shape our teaching and research pathways. Our partners directly fund positions like the Dow Chair in Sustainable Engineering and Innovation or the Tritium e-Mobility Visiting Fellow, which focuses on ways to decarbonise the transport sector.

There are also industry led partnerships through the Cooperative Research Centre Projects, which are up to three years long with matched funding from government between AU$100,000 to AU$3 million across a range of topics; such as, UQ working on flexible battery materials.

The University belongs to several Cooperative Research Centres (CRCs), which are a mix of industry, government and academia focussed on solving grand challenges. For example, the Future Fuels CRC is enabling the decarbonisation of Australia’s energy networks using future fuels such as hydrogen. Alternative models for industry engagement include the Centre for Natural Gas: a centre of excellence examining the role of gas in the transition to low carbon with several gas industries funding the work.

Carbon Literacy Project

The UQ Business School recently became an accredited partner with the UK based Carbon Literacy Project to help individuals and organisations tackle the climate crisis by delivering an Australian-first training program. Director for the United Nations (UN) Principles for Responsible Management Education (PRME) for the UQ Business School Dr Cle-Anne Gabriel, climate expert Dr Saphira Rekker and PRME manager Roxane Valier-Brasier are leading the launch of UQ’s Carbon Literacy Program. The Carbon Literacy Project is an initiative led by the Carbon Literacy Trust: an entity established as a Charitable Incorporated Organisation in 2014.

The Trust aims “to advance the education of the public in the conservation, protection and improvement of the physical and natural environment” through the dissemination of Carbon Literacy. UQ’s launch of the Carbon Literacy Project was included as a key element of the UQ Sustainability Week in August 2021.

"We’re empowered to partner with the Carbon Literacy Project to help the community and organisations understand the impact of their daily activities on the climate, and highlight the steps they need to take to reduce their carbon footprint and advocate change.
Dr Cle-Anne Gabriel."

Since the launch, the Program has received a positive response from Australian corporates wanting to get involved.
Manufacturing
How are you embracing the transition in your business through car production life-cycle?

Audi is on the road to climate-neutral mobility, which means every facet of our business is being analysed and overhauled to achieve that goal. A central part of that is to make vehicle production carbon-neutral at all sites by 2025. We have already achieved this at Audi Hungaria and Audi Brussels. Intelligent use of resources saves materials and reduces energy consumption, and in conjunction with working with suppliers to further identify ways to reduce CO2 output in the supply chain, we are taking key steps towards achieving climate neutrality. Second life usage for batteries is also highly effective; if components are not necessarily up to the demands of their original purpose we can transform them into energy storage units rather than recycle them prematurely.

What trends are largely driving change in this sector particularly from a government policy initiative?

The EU sets strict CO2 compliance standards carmakers must meet, which directly influences decisions we make as a business. On top of that, governments around the world have different timeframes for when the sale of petrol and diesel vehicles may or may not be banned. The UK Government, for example, is planning to phase them out by 2030 – it’s a seismic step from a policy standpoint and one that companies around the world will have to react to. However, Audi operates in markets around the world, therefore, we have to make decisions based on what we think is best for the business and for society. People’s habits, behaviour and views on all things from climate change, sustainability and electric vehicles are important – society is a driver of change just as much as government policy.

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Can you show how your sustainable practices and technology in the automotive sector is making a difference?

All of the steps we are taking from transforming production sites to become carbon neutral to efficiently repurposing batteries for second-life use are already having an impact. Last year alone, 335,000 tonnes of CO2 was removed from our supply chain and prevented from entering the atmosphere. Every year we will continue to cut more CO2 from our production processes and supply chain—the scale of our business means that every step makes a big difference. For example, more and more components on our vehicles are produced from recyclates—processed materials derived from a recycling process. Today, you’ll already see those materials used to produce headlight mounts, wheel arch liners, bumpers covers and floor trim.

What do you see as being the next disruptor in the automotive industry?

We are currently living and operating through one of the most disruptive periods in automotive history as we move towards electric vehicles. The transition is a seismic shift for our business, customers and sales operations—it’s a ‘disruptor’ that will affect every corner of the industry and requires a complete overhaul of how it currently operates today as well as in the future.

Another ‘disruptor’ on the horizon will be the introduction of autonomous vehicles. Development on autonomous vehicle technology has been under way and hugely successful for some years, but law and legislation surrounding the use of the technology differ enormously. Cities and towns will also have to adapt and change to accommodate the technology, which will require involvement from governments at a local and national level globally.

What role does Audi play in helping businesses and governments reach their global target of Net Zero Carbon?

Audi has an ambitious but solid plan, that is already under way, to assist Governments with the target of Net Zero Carbon. By 2025, we have promised that all of our production facilities around the world will be completely carbon neutral as well as ensuring our suppliers are prioritising the use of green energy. Elements of the interiors of our cars, such as the seats, carpets and floor mats, are made from recycled materials and even recycled fishing nets. In every corner of our business, we are looking to maximise our green credentials and sustainability focus. Our biggest commitment is that, by 2026, we will launch our final ever internal combustion vehicle and focus exclusively on the development of fully electric vehicles.

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What growth has NAB seen regarding the energy sector in the last few years?

We continue to see very strong levels of renewable energy investment as they are the cheapest new entrant in most markets and expect scale and innovation to lead to further cost declines. Historically the investment in renewables has been driven by generous government support, however, many energy markets are now “subsidy free” with the economics of projects working on a standalone basis particularly when the site benefits from a strong wind or solar resource. We are also seeing a rise in corporate power purchase agreements (PPAs) to help fill the void being left by fewer government subsidies, although questions remain about whether there’s sufficient supply to fill this gap and there remains a role for ongoing government auctions (e.g. CfDs) to provide price stability (at levels that are no longer “subsidies”) to enable investment. These PPAs or CfDs provide a level of certainty over cashflows which is key for renewable projects to secure debt financing.

The increase in intermittent generation capacity being deployed has also led to a renewed focus on energy storage solutions. We have seen a strong rise in the number of Lithium ion battery projects being developed and we expect this trend to continue as battery costs continue to decline and business models evolve.

For almost 160 years, NAB has been helping customers with their money. Today, NAB employs more than 30,000 people serving 9,000,000 customers across over 900 locations in Australia, New Zealand and the world. NAB funds some of the most important infrastructure in its communities — including schools, hospitals and roads with a focus on responsibility, inclusion and innovation.

Ram Vijayaseelan
Specialised Finance Director
Companies are also seeing that addressing environmental issues does not necessarily hurt financial performance and can actually deliver financial rewards.

What key triggers are driving the conversation in financing right now around environmental sustainability?

Factors such as a company’s resilience against the impact of climate change, and potential business pressures in the path to a net zero world, are important indicators of the risks and opportunities companies are facing. Financial institutions are more aware of these factors than ever and are placing greater emphasis on them when assessing a borrower’s creditworthiness. Several banks (including NAB) have made commitments to a net zero emissions lending portfolio and to achieve this they need to work closely with companies in developing or improving their plans around environmental sustainability.

Companies are also seeing that addressing environmental issues does not necessarily hurt financial performance and can actually deliver financial rewards. This is done through sustainability linked financing which incentivises better environmental performance outcomes through a lower loan margin if predetermined sustainability performance targets are met. Sustainable debt finance has grown exponentially over the last few years, and we expect this trend to continue due to strong demand from companies and lenders to keep sustainability at the forefront of financing conversations.

How do financial institutions build back better from the lasting financial effects of COVID whilst ensuring ESG policies are met?

Decarbonisation, social and digital agendas were already gaining momentum pre-COVID and governments around the world have now made their intention clear to “build back better” with stimulus packages such as the EU’s Recovery Fund being directed towards climate and digital transition. Given financial institutions have fared better during the pandemic than previous economic downturns, they have an opportunity to now support market and economic activity and to facilitate a quick return to stability by continuing to support customer’s investment activity in these sectors.

ESG remains front of mind for both investors and financial institutions with COVID arguably creating more interest in the S and G components of ESG. We are increasingly being asked by customers to link pricing on loans with their performance against pre-negotiated ESG KPIs such as reducing greenhouse gas emissions, delivering greater diversity in the workforce and building more affordable housing.

Are you seeing more projects involve electrification and if so, how is NAB involved?

The financial and environmental benefits for companies and individuals to use electricity instead of fossil fuels is increasing and will continue to gather pace as renewables make up a larger share of the power generation mix. Electrification of certain transportation and industrial processes is already cost-effective when considering current power prices vs fuel prices and typically lower maintenance costs. We are seeing a rise in projects involving electrification – especially around Electric Vehicle charging infrastructure and Battery Electric Buses which are in strong demand from local councils and bus operators as they work to evolve their fleets to meet emissions targets. Whilst business models in this space are still evolving, the funding requirement to support electrification will be large. We will look to support our customers by providing financing solutions across the machinery, vehicles and infrastructure assets that underpin electrification.
What exciting renewable energy projects is NAB involved in, both in Australia and the UK?

We have been active in the clean energy finance sector since 2003 and during that time have committed over AU$10 billion across more than 140 deals in Australasia, Europe and the US. Our focus has traditionally been on financing wind and solar projects but what’s been exciting for us is that we are seeing more early-stage opportunities in emerging sectors such as utility scale battery storage. Whilst finding the right financing solution for new technologies can be challenging, understanding new asset classes and business models can be rewarding especially when transactions involving more mature renewable technologies are becoming more commoditised.

Given our clients are continuing to seek opportunities beyond the UK and northern and western Europe, NAB recently expanded its geographical mandate into Spain and Portugal and have now closed our first renewable energy transactions in those markets with some of our key clients who are making investments there. Executing transactions in new sectors and markets generates knowledge and expertise that we can bring to our domestic customer base as Australia accelerates its shift to renewable energy.

Our focus has traditionally been on financing wind and solar projects but what’s been exciting for us is that we are seeing more early-stage opportunities in emerging sectors such as utility scale battery storage.

What role does NAB play in helping businesses and governments reach their global target of Net Zero Carbon?

As the first Australian bank to have signed the United Nations Environment Programme Finance Initiative’s Collective Commitment to Climate Action, NAB is working towards aligning its business operations and lending portfolio to achieve net zero carbon emissions by 2050. NAB has announced a range of measures to achieve this including an increased target of AU$70 billion of environmental finance by 2025, reducing thermal coal mining exposure to zero by 2035 and sourcing 100% of our energy from renewable sources by 2025. Our customers are all at different stages along the decarbonisation path, but we are committed to working closely with them (particularly our 100 largest greenhouse gas emitting customers) in developing or improving their low carbon transition plans.

It is important to be able to track our progress towards achieving net zero so we have undertaken an exercise to understand the relative carbon intensity of key segments of our lending portfolio and established a baseline from which the bank can monitor alignment of our portfolio over time.
How big of a focus is investment in renewables for Macquarie and why?

Macquarie Group (Macquarie) is committed to playing a leading role in driving the global transition to net zero. For two decades we’ve used our deep capabilities in energy, infrastructure, technology and commodities to work with clients to create practical solutions to their decarbonisation challenges. And the demand from both national governments and our clients to support the energy transition continues to grow.

We are committed to growing renewable energy capacity and are already developing, constructing, investing in, and managing over 50 GW of green energy projects across four continents.

Our Green Investment Group (GIG) has more than 240 green projects in development, totalling over 30 GW. This includes established technologies like wind and solar and integrates emerging technologies like floating offshore wind, utility scale storage and hydrogen.

The energy transition is a global challenge but requires different responses across individual nations. How does your investment strategy reflect this particularly in the case of the UK and Australia?

We have a bottom-up culture, and we empower our people to make decisions and react when they see an opportunity. This means that we do not have country strategies per se. However, the UK and Australia are extremely important markets for us, and we are supporting major projects in both countries – whether this be the next generation of offshore wind farms in the UK or major renewables projects in Australia like the Murra Wurra onshore wind farm in northern-Victoria Phase 2 of Murra Wurra is currently under construction and when complete will provide power for the equivalent of 150,000 Victorian homes, avoiding an estimated 468 kilotonnes of CO2 emissions each year. The windfarm is one of several green energy investment projects Macquarie is supporting as we work with governments to support the energy transition.
According to Global Infrastructure Outlook, by 2040 over US$94 trillion is needed to be invested in infrastructure globally. That investment will need to be both compatible with net zero goals and resilient to an already changing climate. As the world’s largest infrastructure manager, and a leading developer of new greenfield infrastructure, our focus is on climate resilience and adaptation to help prepare communities for a changing world.

Macquarie Asset Management is committed to being the global leader in sustainable real asset management. With approximately 150 portfolio companies providing essential services used by more than 100 million people each day, it is investing in climate specific risk assessments, revised operating procedures, physical enhancements, industrial technologies, and training. All of which contribute to greater climate resilience for essential services within the communities we serve.

As a leading sponsor of new infrastructure, Macquarie Capital is designing climate resilience into new infrastructure to deal with a higher frequency of extreme weather and rising sea levels.
People
What impact does a country’s energy policy have on recruiting talent?

Australia is having a very interesting debate around energy as we struggle to get a coherent energy policy at a political level. The lack of coherency, despite private businesses and investments focused and pushing for sustainability and decarbonisation, is impacting the potential growth of the sector. Attracting top research and development talent to Australia with the backdrop of a carbon-focused government is a focus of concern at present.

In the UK, commitments towards cutting carbon emissions and setting out clear, green energy targets and policies are seeing a growth in the energy job market. The Green Jobs Taskforce is the latest government initiative championing 2 million green jobs by 2030 to support net zero emissions by 2050.

How do you see technology becoming a part of a company’s green growth strategy?

Green tech will play a critical role in achieving better results for the environment. At Robert Walters, we have seen a boom in new companies focussing on the circular economy through the creation of more sustainable products and taking stock of new developments such as carbon capture, energy storage, waste tech and enhancements in hydrogen as a source of more sustainable energy. As green tech continues to develop, we imagine we will see many more organisations utilising the technology to help streamline their environmental ambitions.
Are you seeing a demand from employees wanting their employers to be environmentally responsible? And if so, what type of things are employees asking for?

Environmental and Social governance is highest on the agenda for talent when considering a new employer. ESG whilst not new is still certainly a key topic for the media and government which may explain why we are seeing more candidates preferring industries recognised as leading the energy and sustainability conversation. In particular, graduates and younger candidates may have a more altruistic view on their employer’s role in environmental responsibility, but we rarely hear this as the primary decision-making factor for them at the point of taking a new role.

Employers are certainly taking the initiative to manage their social and environmental responsibility, with the likes of Blackrock linking Bond interest rates to diversity performance, KPMG committing to hiring more from working class backgrounds, and an increasing number of employers signing up to the UN’s sustainable development goals. Whether this is set to have a greater impact on how an employee views an organisation is still undecided.

Have you seen a transformation or demand for skills in the energy sector? How has the market responded to the demand for roles that intrinsically support sustainability?

Sustainability, carbon neutral and climate consciousness are all key trends that every company, regardless of their primary output, are considering. We are seeing phenomenal growth in roles relating to circular economy; waste to energy; decarbonisation and renewables (solar, wind, battery storage) as well as emerging technology including hydrogen. There is huge demand for candidates across the development and construction of renewable projects as companies push ahead with their own clean energy journeys across Australia.

Similarly, demand for ESG experts is booming across professional services and industry, including at finance and investment firms, management consultancies, boutique advisory firms, real estate companies, engineering, NGOs and associations — not to mention the thousands of listed companies that are required to compile and report their ESG data to the public and to incorporate their ESG strategies, relationships and operations accordingly. Demand for analysts, strategists, consultants and finance/performance reporting for ESG has never been higher — far more than the current supply of qualified candidates.

How have you worked with educators to ensure the workforce is trained or aware in sustainability?

The supply of experienced talent is limited, and education is a key factor in developing knowledge and experience. At present UK, there is the Institute for Sustainability Leadership at the University of Cambridge who offer bite sized courses and the CFA who offer an investment professional ESG certificate. It will be the city and guild and other blue collar education providers who will soon face the significant task of training employees, such as renewable energy engineers, to cope with demand when new legislation is released, for example when housing development in the UK prohibits gas heating systems being installed post 2025.

As green tech continues to develop, we imagine we will see many more organisations utilising technology to help streamline their environmental ambitions.
How are you using technology to innovate the energy sector?

As global markets pivot to meet the demand for low carbon energy solutions, collecting reliable data that supports a ‘bankable investment’ narrative is critical. The RPS metocean team has built a reputation for reliability, excellence, and technically innovative solutions.

By applying our deep expertise in offshore measurement, we took our traditional LiDAR technology and invested in integrating it into a floating buoy with reliable, renewable power, data storage and satellite communication capabilities.

Our design and development process focussed on creating a reliable and safe design to maximise data accuracy and return, while making the process of information gathering easier and more cost-effective for our clients.

Similarly, our mooring design minimises damage to the seabed and reduces marine life entanglement risk. And the buoy is powered only by renewable solar and wind energy, reducing our own carbon footprint, and making permitting easier.
What role does RPS play in helping businesses and governments reach their global target of Net Zero Carbon?

In 2015, the Paris Accord set carbon reliant industries a target of removing up to 90% of carbon dioxide emissions.

Carbon Capture and Storage (CCS) is the only technology that has the potential to not only be Net Zero but Negative Zero by removing CO2 and locking it away forever.

Integrating several, highly technical CCS skills across project management, planning, environmental, engineering, regulatory and sub-surface specialisms, we assist clients such as Norcem in Norway, in the effective removal of carbon. We are currently working with Norcem to reach its climate goals by removing 400,000 tonnes of CO2 per annum through carbon capture and storage.

As a relatively new technology for many countries, CCS projects are often hampered by a lag in government regulation. This makes securing final investment difficult and impacts the confidence of CCS investors. We can make this easier with modelling and have been recently involved in economic modelling for the Scottish Crown Estates as part of its ongoing pricing considerations.

What changes have you seen in your clients’ approach towards implementing ESG policies and how can this be managed cost-effectively?

The rapid ascendency of ESG as a mandatory activity within financial reporting and the ability to raise investment is a key ‘motivator’ for the oil and gas industry to change its approach to cost and profit analysis. What is yet to be changed are the principles of robust modelling to assess the risk and uncertainty associated with bringing the still vital hydrocarbon molecules to a viable sales point. However, the value-chain has become more complex.

Different industry players have adopted different technologies and approaches to shift to more sustainable hydrocarbon production with lower carbon intensity. They are achieving this by either direct intervention or by utilising ‘offsetting’ technologies, many of which are a natural adjunct to their traditional skill sets. The advent of carbon currency, whether by tax benefits, offset credits or direct value credits, will enable businesses to adjust to, and thrive in, a low-carbon economy.
Priorities for Government
We know from the latest IPCC report and current climate related disasters occurring across the world that there is an urgent need to decarbonise our energy system. Australia can learn a lot from the early work of the UK Government, but there is potential for synergies between the countries. Both countries are working to develop hydrogen industries at scale. Hydrogen presents huge low carbon potential with opportunities for seasonal storage, decarbonising parts of the transport sector and use in industrial applications.

The decarbonisation of key industries such as aluminium, steel and cement production present both opportunities and challenges and will require new models of public-private partnerships to de-risk the move to a more sustainable future.

Transport is also a large component of a country’s emissions profile and working collaboratively across countries and promoting shared learnings will help to accelerate successes across this very important sector.

With Energy efficiency remaining the low hanging fruit in decarbonising the world, educating the broader public on what they can do in this area is critical. Similarly, the enhanced focus on the circular economy takes this one step further in closing the loop across so many sectors if done well.

What do you think the priorities for Government should be in the lead up to COP26?

University of Queensland

We know from the latest IPCC report and current climate related disasters occurring across the world that there is an urgent need to decarbonise our energy system. Australia can learn a lot from the early work of the UK Government, but there is potential for synergies between the countries. Both countries are working to develop hydrogen industries at scale. Hydrogen presents huge low carbon potential with opportunities for seasonal storage, decarbonising parts of the transport sector and use in industrial applications.

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Professor Peta Ashworth, Chair in Sustainable Energy Futures & Dr Cle-Ann Gabriel, Senior Lecturer in Strategy

Audi

From an automotive point of view, government policy and investment into the rollout and adoption of electric vehicles needs to be accelerated. By 2030, the sale of petrol and diesel vehicles will be outlawed in the UK, and while consumer confidence in electric vehicles is growing it remains comparatively low against petrol-powered models. OEMs and Government need to work hand in hand to accelerate this change; Audi has committed billions of euros into its EV development plan that will see a fleet of sustainable vehicles hit the road imminently, but a bold investment into the UK’s charging infrastructure is required to back this up and give consumers more confidence in electric vehicle technology.

Andrew Doyle, Managing Director, UK
COP26 provides an opportunity for governments to raise their ambitions around climate change and to reach a consensus on how countries can accelerate action on adaptation. Whilst bold public commitments are an important first step, one of the priorities should be to implement the arrangements necessary to track progress against targets in a transparent and consistent approach across nations.

On climate finance, the current goal of mobilising USD$100 billion per year to address the needs of developing countries should be revisited as this now appears inadequate to meet global climate change targets. The pandemic has had a particularly damaging impact on developing economies, many of whom will emerge from the pandemic with reduced (or more expensive) access to external finance. As such they will not have the same ability to put in place recovery packages centred around sustainability.

Ram Vijayaseelan, Specialised Finance Director

One of the biggest challenges is how we boost private investment in the energy transition of emerging markets and lower-income countries. Both of which are defining issues for developed and developing countries to address at COP26.

In emerging markets, demand for energy has risen by 70 per cent in the past decade versus flat demand in Europe and the US. Yet whilst energy demand is growing, investment in these markets has remained stubbornly low. For every $US1 invested towards the energy transition in emerging markets, we've seen $US20 invested in developed countries. The finance gap between developed and developing countries is holding back the ambitions and the energy transition of emerging economies (more than 80 of which have declared their intent to set a net zero target). Building a bridge to close that gap should be one of the priorities for governments to address in the lead up to COP26.

We are also looking to play our role here – and are working with the Glasgow Finance Alliance for Net Zero and the Climate Finance Leadership Initiative to accelerate the mobilisation of capital for climate solutions in emerging markets.

Paul Plewman, CEO
Australia must have a coherent policy position that moves beyond the current political malaise to ensure we cement our position in the global green economy and to ensure we can continue to attract global talent and trade internationally without tariffs.

Following that, the primary priority in our minds should be further investment in green and blue initiatives that offer alternatives to the current overuse of our natural resources.

Jane Lowney, Associate Director & Peter Milne, Principal

Governments, including the UK and Australia, need to build a consensus for action. The global response to COVID showed us what happens when governments don’t bring their communities with them. Reducing carbon will produce winners and losers and those who lose out will need genuine support.

Reducing carbon is a fiendishly complex problem. It matters that we get this right. We will need to bring our very best STEM skills to bear on multiple challenges. We need to reduce energy usage and change the energy mix towards renewables and low carbon sources. We need to put carbon back in the ground and still manage the impacts of a changing climate. We will need to rethink nuclear power. Communities and cultures remain impacted by changing climates and we can’t waste time debating which approach is most important or ruling some out.

Build consensus, support those who lose out, and try everything!

John Douglas, Chief Executive

Robert Walters

RPS Group
At more than half-a-trillion dollars, NSW is Australia’s largest state economy and has the highest population of any state in Australia with roughly 7.95 million residents. NSW has a diversified, service driven economy and is one of only two states with a triple-A credit rating. This rating was given because of the state’s strong, stable economy and financial management. NSW has a strong institutional framework and a diverse economy and is focused on investing in areas where it is most needed in order to strengthen its economy further.

NSW would like to formally thank all the contributors to this informative and highly valuable report. Australia is currently going through the fastest energy transition in the world, and NSW is leading this change through its commitment to Net Zero by 2050 and major investment in renewable energy and clean technologies.

NSW recognises that energy and environment go hand in hand and it’s the role of Government to protect the environment while creating new opportunities for its citizens in the industries of the future. NSW International Trade and Investment works to attract foreign direct investment into NSW and to promote export trade through international business relationships. For more details and assistance contact Tess Thomas at tess.thomas@investment.nsw.gov.au.
About the Contributors
Professor Peta Ashworth is UQ Chair in Sustainable Energy Futures and has responsibility for the Master of Sustainable Energy (Management). In 2020, she was appointed as Director of the Andrew N Liveris Academy for Innovation and Leadership. She is well known for her expertise in the energy field with research focuses on understanding public attitudes to climate change and energy technologies (wind, CCS, solar PV, geothermal) for climate mitigation.

Peta co-authored the CSIRO Home Energy Saving Handbook to help Australian householders save money and reduce their overall energy use, and she has an interest in designing processes for engaging on complex and contested issues with a focus on science and technology innovations. She was awarded an EU Horizon 2020 research project - Responsible Research and Innovation Practice (RRI – Practice), which aims to explore the drivers and barriers to the successful implementation of RRI practice in a global context.

She is based in UQ’s Dow Centre.

www.uq.edu.au

Cle-Anne Gabriel is a specialist in sustainable development and higher education. She is a researcher and educator within the Strategy and Entrepreneurship Discipline of UQ Business School, and the school’s Director for the United Nations Principles for Responsible Management Education (UN PRME). Cle-Anne is a Senior Fellow of the Higher Education Academy (SFHEA), an award-winning educator and a Director of the North American Case Research Association (NACRA). She is also a member of the IMPACT2030 Council of Australia. Cle-Anne researches in the areas of post-growth futures, renewable energy enterprise and business models for sustainability.

She has worked on projects and assignments funded by organisations such as Australian Aid (AusAID), the European Union (EU) and New Zealand’s Ministry of Business, Innovation and Employment (MBIE). She designed and delivered an Energy Baseline Study for the city of Dunedin in New Zealand and provided policy advice on the city’s Energy Plan and the lead-up to its accession to the Global Covenant of Mayors for Climate and Energy. She designed and delivered research programmes for the Japanese Ministry for Environment, comparing German and Japanese renewable energy policies, and understanding the electricity import and export balance situation and grid expansion policies of German transmission system operators. She also worked on the review of Australian Aid’s Lighting Vanuatu programme, which involved an evaluation of the business models used to supply solar lighting to households in the remote islands of Vanuatu. Cle-Anne has a strong research consulting and evaluation track record, previously working on EU projects.
Ram is a Director in NAB’s Specialised Finance team having joined the bank in 2013. He is responsible for leading structured project and acquisitions financings in energy and infrastructure across the United Kingdom and Europe. Ram’s focus is on the renewables sector, having led multiple transactions across solar PV, onshore wind, offshore wind and waste to energy.

Ram has over 13 years banking experience in the UK and Australia. Prior to joining NAB, Ram worked for a project finance consultancy and also as an equity analyst covering the TMT sector. Ram is a Chartered Financial Analyst (CFA) charter holder and holds a Bachelor of Commerce and Bachelor of Laws from the University of Sydney.

nab.com.au

Andrew Doyle is Managing Director of Audi UK, one of the largest markets in the world for the global premium car brand, and this is a position he has held since 2017. In that time he has steered the company through the significant challenges of Brexit and Covid-19, whilst maintaining one of the highest market shares globally. Prior to this, Mr. Doyle held the role of Managing Director of Audi Australia, cementing continuous growth for the brand in the market, whilst at the same time holding Director of the company’s retail business, Audi Centre Sydney. He was also the founding Director of the company’s charity, Audi Foundation. Prior to this, he spent three years as Managing Director of Audi Ireland, all as part of his 28 years of senior leadership within premium car brands, across Asia, North America, and Europe.

audi.co.uk
Paul holds the role of CEO of Macquarie Group for Europe, Middle East and Africa (EMEA), along with Head of Commodities and Global Markets, EMEA. Paul has been Head of Commodities and Global Markets, EMEA since 2007 where he manages a team of more than 500 professionals in six offices across EMEA providing clients with an integrated, end-to-end offering across global markets including commodities, equity derivatives, fixed income, and foreign exchange.

In December 2018, Macquarie announced Paul’s appointment as regional CEO for Macquarie Group in EMEA, effective 1 April 2019. Prior to these roles, Paul set up and managed the Macquarie Financial Products Joint Venture with Abu Dhabi Commercial Bank (ADCB), based in the Middle East.

Paul is also a Council Member of Heart of the City, which supports SMEs in becoming responsible businesses through workshops, masterclasses and expert mentoring.

macquarie.com

John is UK based Australian and was appointed RPS Chief Executive in 2017. Prior to this, he was Chief Executive of Coffey International Limited, a global consultancy listed on the Australian Stock Exchange, for five years. John spent 15 years with a large Australian industrial, Boral Ltd where he was Managing Director of the largest Division. He has held consulting roles with Boston Consulting Group and with other engineering companies. John has a Civil Engineering degree from Adelaide University, an MBA from London Business School and has completed the Advanced Management Program at Harvard Business School. John’s vision and drive is instrumental in taking RPS from being a conglomerate of small consulting and service businesses, to a truly global firm that delivers professional services around the world.

rpsgroup.com
Peter Milne, Principal

Peter has over 15 years’ experience in recruitment across a diverse client base of established PLCs, SMEs and privately backed companies. He has gained first-hand experience of working in interim assignments for Plc and start-up technology companies in the UK helping them to recruit the right experience and skills across a diverse range of sectors and technical requirements.

robertylowney.com

Jane Lowney, Associate Director - Engineering & Infrastructure

Jane is a degree qualified Civil/Structural Engineer with industry and recruitment experience within the engineering sector. Having studied Engineering at University, Jane offers a unique technical understanding of clients’ requirements given her educational background. Prior to entering the recruitment market in 2010, Jane has worked in business outsourcing organisations in Ireland and Poland as well as working with an engineering consultancy.

Jane is particularly passionate about diversity & inclusion in the engineering sectors and is an active participant in industry working groups and events to improve diversity and to encourage participation in STEM. Jane is a Board Member of the Infrastructure Association of Queensland and a regular content contributor to Sourceable and other industry publications.

robertylowney.com.au
Australia–United Kingdom Chamber of Commerce

**Australia-UK Chamber of Commerce**

**Louise Crawley, Marketing & Content Coordinator**

Louise is an accomplished Marketing and Content Coordinator and in her current role manages the Chamber’s marketing and communications channels. As a key contact for our new and existing Members, Louise works with businesses to help them grow their engagement and brand exposure through marketing.

Louise is qualified as a Public Relations practitioner from the Chartered Institute of Public Relations in London and has an MSc in Psychology from Canterbury Christ Church University and a BA in Creative Writing from the University of Essex.

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**Australia-UK Chamber of Commerce**

**Joanne Holland, Executive Director**

Jo is an experienced CEO with a demonstrated track record in transforming organisations, driving change, and creating shareholder value. After spending over a decade in senior financial services roles in Australia including CEO of IOOF Trustees and Treasurer Domestic Markets of ANZ, Jo moved to the UK after completing her MBA in Switzerland. Initially, she joined Arthur Andersen and after 3 years established her own Company. Joanne has spent the last 20 years in C-Suite roles on behalf of UK investors in multiple sectors and over 17 countries. Her experience in due diligence, mergers and acquisitions, post-acquisition integration, and process improvement enables her to relate well to growing SME’s and start-ups.

Leading the Australian-UK Chamber of Commerce, Jo’s focus is to drive mutually commercial relationships and outcomes between Australian and UK Companies.

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Rethink, Reset Series 2021: The Road to Net Zero

October 2021

If you’d like to find out more about our Rethink, Reset 2021 series or if you are interested in participating in future Chamber thought leadership, please don’t hesitate to get in touch with our friendly team at hello@australiachamber.co.uk.

www.australiachamber.co.uk

This report was designed by, and produced in partnership with, Insignis.

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