

**Submission  
No 228**

## **SUSTAINABILITY OF ENERGY SUPPLY AND RESOURCES IN NSW**

**Organisation:** Hunter Business Chamber

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# **Inquiry into the Sustainability of Energy Supply and Resources in NSW**

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NSW Parliamentary Committee on Environment and Planning

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## Introduction

The Hunter Business Chamber (The Chamber) is the largest regional business chamber in Australia, established in 1886. The Chamber independently represents about 2,000 member organisations to all levels of government and is the peak business and industry association in the region, reflecting the interests of all sectors.

The Chamber works as an integral part of the NSW Business Chamber network. We advocate to government at local, state and federal level for business-positive policies that promote investment and growth to deliver flow-on benefits to all in our community.

The Hunter Region is Australia's largest regional economy, with a Gross Regional Product of more than \$50 billion per year, driving more than one quarter of the total economic output of NSW. The region encompasses 10 local government areas (LGAs) with a total population of nearly 700,000 and a workforce of 280,000<sup>1</sup>. The region has an estimated 322,000 jobs, projected to increase to 384,000 by 2036.<sup>2</sup>

The Hunter is an economically diverse region encompassing strong foundations in resources, manufacturing and agriculture, but with fast-growing services and knowledge sectors. Mining, manufacturing and construction are the key industries by output, while health care and social assistance is the highest employing sector, followed by education and training and retail. The region's two global gateways are Newcastle Airport, which handles more than 1.2 million passengers per year, and the Port of Newcastle, the world's leading coal export port.

Power generation is another key industry in the Hunter, employing approximately 2,200 people<sup>3</sup>. Four of the five coal-fired generators that provide the majority of the electricity produced by NSW generators are located in the region: Liddell and Bayswater Power Stations, owned by AGL Energy, located in the Upper Hunter; and Eraring Power Station, owned by Origin Energy, and Vales Point Power Station, owned by Sunset Power, which are both in Lake Macquarie.<sup>4</sup> Production from the Liddell and Bayswater stations alone accounts for about 30 per cent of the electricity needs of NSW.<sup>5</sup>

The region is also a leader in research and development of renewable energy technologies, as home to two research organisations conducting national and international research in the field and a number of major projects that will contribute to the diversification of the state's energy mix.

The Hunter Business Chamber has a direct interest in the sustainability of energy supply and resources on several levels. We represent many participants and stakeholders, including mining corporates, generators and providers of electricity, sub-contracting firms and SMEs that supply goods and services to the mining and energy industries including manufacturers and professional services firms in accounting, law, marketing and other fields. Our membership includes some of the largest industrial energy consumers in the state, including Tomago Aluminium and Orica. We also represent

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<sup>1</sup> Remplan, City of Newcastle and Hunter Economy Profile <https://www.economyprofile.com.au/newcastle/industries/gross-regional-product>

<sup>2</sup> Hunter Regional Plan, p17 <https://www.planning.nsw.gov.au/Plans-for-your-area/Regional-Plans/Hunter/Hunter-regional-plan/The-leading-regional-economy-in-Australia>

<sup>3</sup> Hunter Investment Prospectus <http://rdahunter.org.au/wp-content/uploads/2019/06/2019-Hunter-Investment-Prospectus-Online.pdf>

<sup>4</sup> Australian Energy Regulator, AER electricity wholesale performance monitoring: NSW electricity market advice, December 2017, p 9.

<sup>5</sup> AGL Macquarie Power Stations <https://www.agl.com.au/about-agl/how-we-source-energy/agl-macquarie>

companies and organisations involved in the renewables sector. We participate in the [Hunter Energy Transition Alliance](#), an alliance between government, industry and community stakeholders to attract new investment and achieve economic diversity for the Upper Hunter Region, and sit on the [NSW Energy and Resources Knowledge Hub Steering Committee](#).

Economic diversification is a key issue for the Hunter, given the region's reliance on resources and coal-fired power generation, to ensure prosperity and liveability are maintained into the future. While demand forecasts indicate mining and coal exports will play an important role in the Hunter economy for decades to come, there is a strong regional focus on diversifying the economic base to ensure its future strength and resilience.

The Chamber notes comments made by the Chair of this inquiry that it will provide an opportunity to "plot a responsible roadmap for renewables in NSW" that will avoid "pitting coal communities against climate activists". Similarly, the Chamber encourage a focus by government on planning to support a long-term economic transition for the Hunter region that assures both energy security and the ongoing economic prosperity of communities that rely on mining and energy industries.

The Hunter Business Chamber appreciates the opportunity to contribute to this inquiry and offers the following comment in line with the terms of reference.

- 1. The capacity and economic opportunities of renewable energy.**
- 2. Emerging trends in energy supply and exports, including investment and other financial arrangements.**

The Hunter's expertise in energy generation, existing infrastructure and research capability position it well to be a leader in the development of renewable energy technology and power generation. The Hunter is a significant source of power generation in NSW, however prospective closures of Liddell and Bayswater power stations in 2023 and 2035 respectively will hasten the need for diversification in the mix of energy technologies.

The region is already an innovation hub for alternative energy, with leading research being conducted through the Newcastle Institute for Energy and Resources (NIER) at the University of Newcastle and the CSIRO Energy Centre in Newcastle, which is the organisation's solar field and energy research hub. NIER facilitates research that advances new energy technologies, including distributed renewable generation, energy storage and smart grids<sup>6</sup>.

A number of gas and renewable energy projects, either proposed or approved, have potential to provide new employment opportunities in a low-carbon economy, however it should be noted that the majority of the forecast jobs are in construction, with more limited ongoing employment opportunities in the operational phase.

Major projects within the region include the following:

- **[Bowman's Creek Wind Farm](#)**: A 250 megawatt wind farm at Bowmans Creek, east of Muswellbrook proposed by renewable energy company Epuron. The 70- to 80-turbine Hunter

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<sup>6</sup> NIER website <https://www.newcastle.edu.au/research-and-innovation/centre/nier/research/technologies>

project is in an area with extensive existing high voltage transmission lines suitable for connection.

- **[Maxwell Solar Project](#)**: A 25 megawatt solar farm proposed by Malabar Coal on the site of the former Drayton colliery with potential to provide power to more than 100,000 homes. It is estimated the project would generate about 50 jobs during construction. The site is adjacent to the Liddell and Bayswater Power Stations with access to high voltage power lines offering a simple and low-cost connection to the grid.
- **[Upper Hunter Energy Park](#)**: A \$190 million proposal for a wind and solar farm near Scone that received NSW State Government approval in 2010. Featuring 34 wind turbines and 100 hectares of solar panels with a generating capacity of up to 113 megawatts of renewable energy, the park could provide renewable power to more than 47,000 homes. The Upper Hunter Energy Park will be constructed by Pamada Pty Ltd, creating 183 construction jobs and 12 ongoing jobs.
- **[Vales Point solar project](#)**: A \$75 million proposal by Delta Electricity for a 55 megawatt solar energy project at Vales Point power station in Lake Macquarie. The project, which could potentially power 20,000 homes, will be built on a 80 hectare area of rehabilitated ash dam that forms part of the broader power station site. The project will support 100 construction jobs and up to five ongoing positions.
- **[Hunter Pilot Biorefinery](#)**: A purpose-built biofuel research facility, which is the first of its kind in the Southern Hemisphere. The foundation project of the biorefinery is a \$30 million cellulosic ethanol pilot plant project by Apace Research Limited (Apace), Ethanol Technologies Limited (Ethtec), the Australian Renewable Energy Agency (ARENA), Chinese engineering company JTL and the University of Newcastle. The first stage is under way and the facility is expected to employ up to 20 researchers and technicians.
- **Liddell Power Station Transition – [NSW Generation Plan](#)**

AGL, the operator of the Liddell Power Station has committed to retire the coal-fired Hunter Valley plant in April 2023. Liddell produces enough electricity to power 1 million homes and the Australian Energy Market Operator identified an 850MW gap in dispatchable power when Liddell closes. AGL has developed the NSW Generation Plan, a program of alternative energy initiatives, including investments in new low-emissions technologies, to replace Liddell.

AGL plans to replace Liddell with the following:

- The Newcastle Power Project – a 250MW gas-fired power station in Newcastle (see details below);
- A second gas-fired power station in NSW of 500MW capacity;
- 1,600MW of renewables, including solar power;
- Up to 150MW of demand response;
- The 250MW “Liddell Battery”;
- Converting generators at Liddell to synchronous condensers;
- 100MW upgrade to Bayswater Power Station;
- Possible pumped hydro project.

There are also two major gas projects proposed for the region, including the gas peaking plant to be developed as part of the Liddell transition project.

□ **[The Newcastle Power Project](#)**

AGL has committed \$490 million to the first stage of its Liddell replacement plan, which includes the construction of a 250MW gas-fired peaking station at Tomago, in Newcastle, close to its existing gas storage facility. The plant will use peaking gas power, which can be turned on during peak demand periods or whenever renewables are not available. The project has been declared State Significant Infrastructure by the NSW Government. A preliminary Environmental Assessment has been submitted but does not include projected employment figures.

□ **[Newcastle GasDock LNG Import Terminal](#)**

South Korean group EPIK Co Ltd has proposed a liquefied natural gas (LNG) project for Newcastle involving the use of an LNG Floating Storage and Regasification Unit (FSRU) in the city's harbour. The 170,000m<sup>3</sup> class FSRU will connect to a new jetty planned to be built on port land at Kooragang Island, enabling a connection to the existing east coast natural gas network via the Jemena's Sydney to Newcastle pipeline. The project has a total estimated value of \$589 million, including \$250million for potential onshore infrastructure at the port. This project has also been declared State Significant. No job projections have been provided at this stage.

### **3. The status of and forecasts for energy and resource markets.**

The outlook for long-term resource markets is variable depending on the source but key forecasters indicate continuing demand for Australian coal for some decades, despite flat global demand for coal generally. The [World Energy Outlook \(WEO\) 2018](#) identifies electricity as the world's fastest growing source of energy, predicting that the needs of developing countries will drive global demand from 19 per cent of total final consumption of energy to 24 per cent by 2040. It expects the increase to be largely taken up by the growth of renewable sources of generation such as wind and solar<sup>7</sup>.

Forecasts for thermal coal exports are less certain than for coking coal due to shifting demand from importers and declining use by some key countries, including China and Japan, however new markets are also emerging, primarily in India, Vietnam, the Philippines and Bangladesh. The NSW Minerals Council predicts a 500 million tonne increase in thermal coal demand in NSW export markets by 2040, based on a report commissioned for this inquiry from Commodity Insights. The International Energy Agency also forecasts growth in exports of Australian coking and thermal coal to 2040 under its New Policies scenario in the WEO.

Notwithstanding the impact on regional production that could result from the opening of new mines in Australia outside of the Hunter, these forecasts suggest coal mining will continue to make a significant contribution to the regional economy for the foreseeable future. This trend has implications for government policy on economic transition as any shift to new or alternative industries needs to balance the pace of change with the contribution in employment and economic benefit that the resources sector currently makes to local communities.

<sup>7</sup> WorldEnergy Outlook, International Energy Agency <https://www.iea.org/weo2018/>

The Upper Hunter Economic Diversification plan recognises a continuing mining and engineering services sector as a key plank in the regional economy, in tandem with a transitioning power and energy sector.<sup>8</sup>

The State Government's 2018 Legislative Council inquiry into Electricity Supply, Demand and Prices in New South Wales noted that state's mix of energy generation technologies is rapidly changing, with significant baseload capacity being replaced by a combination of gas-fired generation and renewables.<sup>9</sup> This trend is reflected in the Hunter with the plans that have been made to offset the retirement of the Liddell plant with new generating capacity that draws from a range of alternative technologies. However, while the renewable energy sector is expanding, fossil fuels still provide the vast amount of the country's energy. Coal-fired generation accounts for 60 per cent of national electricity use in 2018, compared with 19 per cent from renewables.<sup>10</sup>

#### **4. Effects on regional communities, water security, the environment and public health.**

##### **Economic impact**

The resources and energy sectors make a significant contribution to the Hunter region economy through employment, direct and indirect economic benefits, payments to local councils and philanthropic contributions to community organisations.

Research by the NSW Minerals Council compiled from information supplied by 28 industry employers shows more than 14,000 people are employed in the Hunter by mining companies, which inject about \$4 billion in direct expenditure into the regional economy and an estimated \$9 billion in total economic benefit.<sup>11</sup> The report summarises the economic impact in the region as follows:

##### **Direct spending (\$4.3 billion):**

- \$1.6 billion in wages and salaries to 14,045 direct full-time employees (including contractors);
- \$2.6 billion in purchases of goods and services from 4,168 local businesses (includes contractors);
- \$3.5 million in contributions to 375 community organisations; and
- \$30 million in local government payments.

##### **Indirect contribution**

- \$5.7 billion in additional supply chain goods and services purchases; and
- \$2.8 billion in wages and salaries associated with 47,662 additional jobs supported in the region.

<sup>8</sup> Upper Hunter Economic Diversification Action Plan <https://strategicservicesaustralia.com.au/wp-content/uploads/2018/07/20180719-UH-Economic-Diversification-Action-Plan-Implementation-Priorities-FINAL.pdf>

<sup>9</sup> Legislative Council Inquiry into Electricity supply, demand and prices in New South Wales, p97

<sup>10</sup> Australian Energy Update 2019

[https://www.energy.gov.au/sites/default/files/australian\\_energy\\_statistics\\_2019\\_energy\\_update\\_report\\_september.pdf](https://www.energy.gov.au/sites/default/files/australian_energy_statistics_2019_energy_update_report_september.pdf)

<sup>11</sup> NSW Mining Industry Expenditure Impact Survey 2017/18, Lawrence Consulting <http://www.nswmining.com.au/industry/industry-expenditure-impact-survey-2017-18>

In the LGAs of Muswellbrook and Singleton, where most of the region's mining activity is concentrated, the industry provides more than 5,000 direct jobs, supports more than 1,000 local supply businesses and provides local direct spending of over \$1.2 billion<sup>12</sup>.

The Chamber does not have access to equivalent information about the economic impact of the energy industry specific to the Hunter but it is estimated that the industry provides about 2,200 direct jobs in the region, mostly in coal-fired power generation.

Jobs in renewable energy are growing and the Chamber sees this sector as an important area of future employment creation for the region, however new jobs in other industry sectors will likely be needed to replace all of those currently provided by thermal energy generation in the Hunter. The Australian Bureau of Statistics reported a marked increase in the number of FTE jobs related to renewable energy activity in 2017-18, with employment in the sector growing by 28 per cent to a total of 17,740, but also noted that "employment in renewable energy remains comparatively small compared with other forms of energy which employs around 59,000 people"<sup>13</sup>.

Future-proofing local economies that rely on resources and coal-powered power generation will need to be a significant aspect of any government plan to guide industry transition. In areas within the region where traditional industries have declined, such as Cessnock, the legacy impacts of jobs not being replaced in other sectors includes high unemployment – especially among youth – underemployment, low education levels, high proportions of people on or below the minimum wage and other socio-economic issues<sup>14</sup>. The imminent closure of Liddell has produced some positive transition planning initiatives involving collaboration between government and industry, including the development of the NSW Generation Plan and the appointment of a Hunter Valley Employment Facilitator to link power station workers with new training and job opportunities.<sup>15</sup>

### **Water security**

The sustainability of energy supply is intrinsically linked to water security – a phenomenon commonly referred to as the water-energy nexus. Water is used in all phases of energy production and electricity generation. Energy is required to extract, convey, and deliver water of appropriate quality for diverse human uses, and then again to treat wastewater prior to their return to the environment.

Urban water utilities have a strong record of investing in renewable energy generation, including hydro-generation and solar PV systems in water and wastewater systems, and generating and utilising biogas at wastewater treatment sites. Utilities are now also exploring emerging energy resource opportunities at a larger scale, including:

- **Floating solar** that combines the benefits of renewable energy generation with water saving through evaporation reduction on our water storages. At a large scale, these installations would generate significant amounts of energy for export to the electricity grid.

<sup>12</sup> NSW Minerals Council Hunter Industry Update, Presentation to Muswellbrook and Singleton chambers of commerce, February 2019

<sup>13</sup> Renewable energy jobs surge on the back of solar, ABS Media Release, April 2019  
<https://www.abs.gov.au/AUSSTATS/abs@.nsf/Latestproducts/4631.0Media%20Release12017-18?opendocument&tabname=Summary&prodno=4631.0&issue=2017-18&num=&view=>

<sup>14</sup> Cessnock City Council, Submission: How the Mining Sector Can Support Businesses in Regional Economies

<sup>15</sup> Employment Facilitator appointed to support transitioning workers in the Hunter region, Media Release, 2 July 2019  
<https://ministers.employment.gov.au/cash/employment-facilitator-appointed-support-transitioning-workers-hunter-region>



- **Waste to energy** involving the co-treatment of municipal and agricultural organic wastes with biosolids at wastewater treatment plants to generate renewable energy and divert waste from landfills. At a large scale waste to energy facilities would produce sufficient biogas for export to gas grid, or alternative higher value uses.

A systems approach to water and energy planning is required to ensure we continue to meet the community's needs in the face of a growing population and climate change and move to a more sustainable and resilient future. The recent Greater Hunter Regional Water Strategy<sup>16</sup> highlights the challenges faced in balancing the water security needs of the energy, agriculture, and urban sectors. Institutional and regulatory barriers to waste to energy opportunities currently hinder investments that could improve the sustainability and resilience of the region's water and energy systems.

Hunter Water recently commissioned Resilience Brokers, systems thinkers from the UK, to complete a feasibility study for a collaborative systems approach to explore regional waste to energy opportunities for the Lower Hunter. The study identified the benefits of a regional approach to waste to energy, including Hunter Water's biosolids, and found strong support among regional partners to further explore a collaborative systems approach to infrastructure planning.

#### **5. Opportunities to support sustainable economic development in regional and other communities likely to be affected by changing energy and resource markets, including the role of government policies.**

The Hunter already boasts a diverse economy and while there is an increasing focus on attracting new industries, particularly in the knowledge sector, some of the best opportunities for employment growth lie in ongoing development of existing sectors.

A number of studies have been completed to identify regional priorities for business investment and attraction. Regional Development Australia's [Smart Specialisation Strategy for the Hunter Region](#) (2016) identifies seven priority areas based on the region's current strengths and competitive advantages:

- Advanced Manufacturing;
- Defence;
- Food and Agribusiness;
- Creative Industries;
- Medical Technologies and Pharmaceuticals;
- Mining Equipment, Technology and Services;
- Oil, Gas and Energy Resources.

These growth areas are endorsed in the [Hunter Regional Plan](#), which notes that there are also other industries, such as tourism, health and education, which are expected to expand as part of an overall national trend.

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<sup>16</sup> Greater Hunter Water Strategy <https://www.industry.nsw.gov.au/water/plans-programs/water-mgmt-strategies/greater-hunter-region>

The Upper Hunter Economic Diversification Action Plan<sup>17</sup> identifies economic development opportunities in both new and existing industries for the part of the region incorporating the local government areas of Dungog, Singleton, Muswellbrook and Upper Hunter, where local industry and employment is focused heavily on mining and power generation. The plan outlines the key sectors for future growth as:

- An expanding Agribusiness Sector;
- A Continuing Mining and Engineering Services Sector;
- A Transitioning Power and Energy Sector.

The Hunter's two international gateways, the Port of Newcastle and Newcastle Airport, will have a strong role in realising new economic opportunities for the region and building a workforce skilled and ready for the new economy, as acknowledged in the Greater Newcastle Metropolitan Plan<sup>18</sup>.

The Port of Newcastle is a major driver of the regional and state economy, contributing \$1.8 billion to Gross State Product per annum and generating over 10,000 jobs statewide. It also plays a major role in the NSW freight task. Diversification will be critical to its continued role as a state and regional economic driver and its effectiveness as a global gateway for trade and tourism. The development of a container terminal is a key component of the Port Masterplan 2040<sup>19</sup>, which outlines a range of strategic development opportunities for the next two decades. The Port of Newcastle maintains that its potential for growth and diversification is constrained by a contractual obligation to pay a financial penalty to the NSW Government for container movements that exceed a specified cap, as set out in the Port Commitment Deeds. This matter is currently the subject of a Federal Court action brought by the Australian Competition and Consumer Commission<sup>20</sup> and was canvassed by a NSW Government Public Works Committee inquiry that reported in February 2019<sup>21</sup>.

The growth of defence, aviation and aerospace opportunities in the Williamstown precinct will also build regional economic resilience. The presence of the Joint Strike Fighter (JSF) program at RAAF Base Williamstown and the planned expansion of aviation and aerospace activity in and around Newcastle Airport promise to drive significant investment, new jobs and economic benefits to the region, as well as contributing to the diversification of the economy. These ambitions will benefit substantially from State Government support for the Airport's expansion strategy, which includes a \$150 million runway and terminal upgrade, development of the Astra Aerolab defence and aviation technology park and declaration of the Williamstown precinct as a Special Activation Precinct<sup>22</sup>.

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<sup>17</sup> The Upper Hunter Economic Diversification Action Plan, 2018 <https://strategicservicesaustralia.com.au/wp-content/uploads/2018/07/20180719-UH-Economic-Diversification-Action-Plan-Implementation-Priorities-FINAL.pdf>

<sup>18</sup> Greater Newcastle Metropolitan Plan 2036 <https://www.planning.nsw.gov.au/Plans-for-your-area/Greater-Newcastle-metropolitan-planning>

<sup>19</sup> Port Masterplan 2040 <https://www.portofnewcastle.com.au/General/Port-Master-Plan-2040.aspx>

<sup>20</sup> ACCC takes action against NSW Ports, Media Release, December 2018 <https://www.accc.gov.au/media-release/accc-takes-action-against-nsw-ports>

<sup>21</sup> Impact of Port of Newcastle sale arrangements on public works expenditure in New South Wales <https://www.parliament.nsw.gov.au/lcdocs/inquiries/2516/Final%20version%20of%20report%20-%2025%20February%202019.pdf>

<sup>22</sup> 2036 Newcastle Airport Vision <https://www.newcastleairport.com.au/corporate/about/masterplan>

## 6. Any other related matters.

The Chamber is strongly of the view that energy security and pricing must be part of any discussion about the sustainability of energy supply and resources in NSW. Australian businesses pay some of the highest energy prices in world and half of respondents to the NSW Business Chamber's quarterly Business Conditions Surveys highlight energy prices as their top cost-control priority. Energy security is also a critical issue for industry, particularly in the Hunter where we have some of the highest commercial consumers of energy in the state.

Reliable and affordable energy is critical to business, households and communities, however in recent times price increases and reliability concerns have adversely affected business viability and continue to threaten tens of thousands of jobs in NSW manufacturing.

Tomago Aluminium provides a good case study. It is the largest user of electricity in NSW, using more than 10 per cent of the state's power supply to produce 580,000 tonnes of aluminium per year. Tomago operates 24 hours a day, directly employs 950 people, produces 25 per cent of Australia's primary aluminium and contributes \$1.5 billion annually to the Australian economy, of which \$800 million is spent locally<sup>23</sup>. In times of extreme electricity shortage, Tomago has been called upon numerous times to reduce operations in order to ease the load on the power grid and avoid widespread blackouts.<sup>24 25</sup>, a process that not only interrupts production but poses a risk of potline failure.

Tomago provides critical energy security to NSW and the National Energy Market (NEM) because it has the largest interruptible load in the NEM. It can reduce load by as much as 630MW in as little as five minutes to ensure blackouts are averted when there is a system security risk. By way of comparison, the next largest interruptible load in NSW is 50MW. The grid cannot currently operate without the fallback option of being able to request that big industry users power down. Tomago Aluminium remains reliant on electricity from thermal sources because renewable energy is too expensive to be commercially viable for the industry and does not guarantee the required reliability.

Gas pricing is also significant issue for industry in NSW. Gas underpins around 250,000 jobs in manufacturing and is used by thousands of small businesses, from commercial laundries to bakeries. The ACCC estimates the cost of transporting gas from Queensland to NSW adds \$2 to \$4 a gigajoule to the wholesale gas price. In its latest Gas Inquiry interim report<sup>26</sup>, the ACCC noted that gas prices are two to three times higher than historical prices and that a number of commercial and industrial gas users "are facing challenging long-term investment decisions".

Orica, a large industrial consumer of gas, employs about 300 people at its Newcastle plant but asserts that the high price of gas in NSW threatens the operation's viability<sup>27</sup>. The company's chief executive Alberto Calderon drew on the example of a comparable Orica plant in Canada to explain the commercial impact of Australian gas prices to the Australian Domestic Gas Outlook Conference earlier this year. He said the Newcastle site performs poorly compared against industry benchmarks, sitting in

<sup>23</sup> Tomago Aluminium website, <http://www.tomago.com.au/about-us/our-story>

<sup>24</sup> Newcastle Herald, 13 February 2017 <https://www.newcastleherald.com.au/story/4463946/tomago-helped-to-avoid-blackout/>

<sup>25</sup> Newcastle Herald, 8 June 2018 <https://www.newcastleherald.com.au/story/5455988/tomago-says-power-grid-in-crisis/>

<sup>26</sup> ACCC Gas Inquiry Interim Report, April 2019 <https://www.accc.gov.au/system/files/ACCC%20Gas%20inquiry%202017-2020%20-%20Interim%20report%20April%202019.pdf>

<sup>27</sup> Newcastle Herald, 8 March 2019 <https://www.newcastleherald.com.au/story/5942177/future-of-oricas-newcastle-ammonia-plant-is-uncertain/>

the last quartile in regards to operational efficiency, but when the high price of Australian natural gas is factored out of the analysis, it compares favourably with the Canadian plant as being among the most efficient across the sector.

The Australian Energy Market Operator (AEMO) forecast in its March 2019 Gas Statement of Opportunities<sup>28</sup> that a supply gap will emerge in the southern states from 2024, due to a continued decline in production from existing gas fields and lower than expected production from as yet undeveloped gas fields. AEMO considers that additional investment in infrastructure to transport gas from Queensland, or to import via LNG import terminals, will likely be needed to avoid those shortfalls.

The NSW Business Chamber has put forward a number of proposed measures to cut energy costs. These include the following:

- The removal of all state taxes and levies on energy bills, as energy is already subject to Commonwealth taxes and charges;
- Improving planning certainty and streamlining planning processes to boost the supply of new energy projects to provide more affordable base load power;
- Amending commercial tenancies legislation to assist cost and profit sharing between tenants and landlords for investment in renewable energy;
- Increasing gas supply through additional natural gas production and/or LNG importation.

## Conclusion

The Chamber supports a reasonable and pragmatic approach to regional economic diversification and the transition of energy supply towards renewable sources. Future-proofing local economies that rely on resources and coal-powered power generation will need to be a significant aspect of any government plan to guide industry transition.

Likewise, transition planning needs to address energy security and pricing issues to ensure business and industry can operate viably and remain competitive. The NSW Business Chamber recommendations outlined in the section above present some short- and medium-term options that could be considered to alleviate price pressures.

Energy is rapidly becoming more expensive, with energy network costs a significant driver of rising costs. As Australia's energy system modernises, cost-effective and reliable solutions to replace ageing assets will need to be developed.

In addition, communities that have traditionally relied on the resources and energy sectors will need to be supported through transition by government policies that promote reskilling, new industry attraction and expansion of existing industries in which the region has strength and competitive advantage.

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<sup>28</sup> AEMO Gas Statement of Opportunities, March 2019 [https://www.aemo.com.au/-/media/Files/Gas/National\\_Planning\\_and\\_Forecasting/GSOO/2019/2019-GSOO-report.pdf](https://www.aemo.com.au/-/media/Files/Gas/National_Planning_and_Forecasting/GSOO/2019/2019-GSOO-report.pdf)

A national policy on energy is needed to address the trilemma of affordability, security of supply and Australia's international commitment to emissions reduction targets. A national policy needs to recognise the need for affordability, requirement for baseload power and sustainability.

NSW should also address the issue of gas supply and pricing, as we are importing 98 per cent of our natural gas requirements while sitting on untapped reserves. Gas is an essential commodity for business and industry and can be a bridge to a cleaner-energy future.

The Chamber appreciates the opportunity to contribute to this inquiry and welcomes further engagement on these matters.

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