



24 September 2019

Senate Select Committee on  
Jobs for the Future in Regional Areas  
regionaljobs.sen@aph.gov.au

Dear Chair,

### **SUBMISSION ON THE FUTURE OF JOBS IN REGIONAL COMMUNITIES**

The Clean Energy Council (CEC) is pleased to have the opportunity to make a submission to the Senate Select Committee on Jobs for the Future in Regional Areas.

The CEC is the peak body for the renewable energy industry in Australia, representing over 750 businesses working in rooftop and large-scale solar, wind and hydro energy, and energy storage.

Your inquiry has great direct relevance to the renewable energy industry given the major economic contribution that renewable energy projects currently, and have the potential to, make to regional Australia.

The size of that economic and employment opportunity depends on how well we as a nation manage the inevitable transition from polluting fossil-fuel based power generation, to clean energy.

A well-managed transition will set long-term policy, that enables the efficient planning, development and deployment of capital investment and human resources to meet our energy needs in the face of the inevitable withdrawal of old, increasingly unreliable and polluting coal-fired generators.

A poorly planned transition will see a higher cost of capital; the under-development of the local industry capability we need across the full extent of infrastructure planning, build and operation; and a missed opportunity to build the dynamic, skilled local workforce that we need to get the job done.

#### **Jobs created by large-scale renewable energy projects**

The value of a firm target and mechanism to deliver on it recently provided the clean energy industry with the confidence it required to invest billions of dollars of private capital into renewing Australia's ageing energy infrastructure.

The 2020 large-scale Renewable Energy Target, which was met in August 2019, has been a highly successful policy which has driven unprecedented levels of investment in new utility-scale generation over the past three years.

The CEC has been tracking the direct jobs and capital investment from renewable energy projects (>5 MW) committed since the Renewable Energy Target was reset to 33,000 GWh in 2016. If we

look at just those new large-scale renewable energy projects that were commissioned between 2016 and 2019 (> 5 MW only), we estimate that over 8000 direct project construction jobs were created. The overwhelming majority of these projects have been built in rural and regional Australia, providing a major boost in employment and local supply opportunities for regional communities.

These employment numbers do not include indirect employment that flow from new clean energy projects, which can be very significant. As an example, an economic assessment completed by Hudson Howells in February 2018 for the Dundonnell Wind Farm in south-west Victoria, showed that the 336MW project would provide approximately 200 direct and 1500 indirect jobs as a result of construction. In this instance, the indirect jobs represent more than a seven-fold multiple of the direct jobs.

The direct job opportunities include electricians, transport and machine operators, general labourers, concreting services and quarry and material supplies etc. Indirect effects arise through the primary expenditure directly associated with the project, and then from further 'rounds' of indirect expenditure that this direct expenditure stimulates as it flows to supplying industries and into incomes and consumption.

In 2012, the CEC commissioned a research report by SKM (now Jacobs) to gain a more complete picture of the economic benefits that flow from wind projects. It found that the construction workforce for a 50 MW wind farm would spend \$1.2 million per year locally, which would flow into the hotels, shops, cafes, restaurants and other local service providers, thereby generating further indirect employment opportunities. SKM also found that employing around five ongoing positions for the operations and maintenance for the wind farm would equate to an additional local spend of \$125,000.

### **The value of firm and strong policy settings for the development of local supply chains**

Clear and strong renewable energy policy settings are also vital for Australia to strengthen its local supply chain and maximise the benefits of the clean energy transition for Australian businesses and workers.

The scale of the wind power market in Australia has regularly lurched from over one gigawatt in annual installations to non-existent investment over the past 20 years, as policy uncertainty has regularly encouraged and then hindered investment. The global wind turbine manufacturer and operator, Vestas, has been in Australia since the beginning of the wind industry in Australia and in that time it has both opened, and then been forced to close (due to the policy rollercoaster), a nacelle assembly facility and a blade factory.

Australia is a relatively high labour cost jurisdiction, so manufacturing this equipment for export is challenging. Without strong local demand for wind turbines, local manufacturing does not make economic sense. Confidence in local demand is needed to sustain industrial jobs and maximise local supply chain benefits across the Australian economy.

In response to the welcome, but short-term, certainty of the Victorian Renewable Energy Target (VRET) Auction round one, Vestas was able to undertake contract manufacturing of key wind turbine components for its VRET projects. This created 19 direct new jobs with the Australian-owned precision engineering company Marand, and state of the art training in this growing global industry segment. Following completion of the VRET components, these workers will be re-absorbed into the broader Marand group where possible, but the local manufacturing will wind-up.

Ongoing auction rounds (or a strong national policy) with clear local content requirements, would enable these roles to be made permanent and potentially increase the levels of local manufacture.

The veteran Portland-based wind tower manufacturer, Keppel Prince, has also experienced significant challenges in maintaining its regional business through the tumultuous history of Australia's energy and climate change policy.

Having endured more than a decade of policy uncertainty, the prospects of Keppel Prince were substantially boosted when the Victorian Government announced (and legislated) the VRET in 2017. The accompanying Victorian Reverse Auction Scheme, which specifies requirements for local content, has been instrumental in the company's ability to remain viable and grow to employ around 150 people in the renewable energy division (and 380 people overall). The business estimates that if such a policy were introduced nationally, it would create a further 1000 jobs in manufacturing alone.

### **Renewable energy projects revitalising regions**

The strong investment in renewable energy generation over the last few years has not only enabled a record number of direct and indirect jobs, but it is supporting the broader economic development of regional areas through the provision of lower-cost energy.

The construction of NEOEN Australia's Bulgana Green Power Hub (BGPH) near Stawell in Victoria underlines the potential for renewable energy projects to deliver transformational change to regional communities.

By virtue of this renewable energy development (comprising a wind farm and battery storage) being secured, the small township of Stawell in central western Victoria has been able to secure a major new employer due to the lower-cost energy that will be supplied.

Nectar Farms – which is a hydroponic vegetable producer – was keen to invest in building one of the biggest glasshouses in Australia to supply domestic and international markets, but due to the rising cost of electricity and high gas prices from the main grid, the viability of the project was in doubt.

Through some clever footwork and a power-purchase agreement with the Victorian Government for part of the output, the Bulgana wind farm and battery storage project, BGPH was secured to supply lower-cost renewable energy to the vegetable producer, and Nectar Farms committed to proceed with the \$220 million investment for their 30 hectare glasshouse operation.

Together, the BGPH and Nectar Farms projects will generate \$560 million of investment, provide 1,300 jobs during construction, and nearly 300 permanent jobs and a further 150 indirect jobs.

As such, the BGPH has assisted Stawell to attract and secure a major long-term employer in food production for the region, delivering a shot in the arm for the economic development of this small regional centre.

Further, as part of maximising the local participation benefits of these investments NEOEN and its construction contractor, Siemens Gamesa, signed onto a 'Major Project Skills Guarantee' to support the development of a renewable energy industry workforce in Victoria.

While the commissioning of the 196MW Bulgana Green Power Hub is ongoing and the results are not final, a recently completed analysis highlights key benefit figures, including:

- 54.4 per cent minimum local content over the design and construction phase of the project
- 46.9 per cent local content from the EPC contractor (Siemens Gamesa)
- 50 per cent of local steel products made from locally milled steel
- 11.5 per cent of the total labour hours attributable to 40 apprentices, trainees and engineering cadets
- 189 total temporary full-time equivalent persons employed to date
- 6 total ongoing full-time equivalent persons expected to be employed in the operations phase.

### **Landholder payments**

Another important way in which renewable energy projects contribute to the prosperity of regional communities is through payments to landholders for leasing property to host wind and solar farms. This has become a critical income stream in some regions where drought has threatened the long-term viability of farm businesses reliant on food and fibre production.

The CEC estimates that the total annual payments to regional/rural landholders (who more often than not are farmers) by renewable energy development, will reach \$82 million annually over the next year, based on all projects that have been commissioned, are under construction or are financially committed.

Crookwell (NSW) sheep farmer, Charlie Prell, who hosts part of the Crookwell II Wind Farm near Goulburn has been receiving rental payments from the wind farm for some years. The Australian Wind Alliance's 2018 report 'Building Stronger Communities' reported that *'even before the wind turbines were installed, Charlie spent a lot of this new income on farm jobs he wouldn't have done otherwise. He tallied up his first two years of spending in 2013 and realised that \$158,000 had already been spent upgrading his farm with the assistance of local employees and businesses.'*

According to Charlie:

*"I am one farmer of three in this wind farm project. If the Crookwell 3 wind farm is constructed there will be three more farmers (a total of six) in this community with the spending capabilities that I now have. That's going to make a big difference to rural businesses in Crookwell."*

### **Jobs in rooftop solar**

In addition to the significant economic activity generated by large-scale renewable energy developments, there is large and growing employment in the rooftop solar sector. Australia now has 2.1 million homes with rooftop solar and there are thousands of small businesses throughout rural and regional Australia involved in solar installations and servicing.

Over 6000 solar installers are now accredited with the CEC, and there are thousands more workers employed in sales, administration and in various parts of the equipment and installation supply chain.

### **Understanding the skills and workforce needs of the clean energy transition**

There is a growing need for skilled workers across the many parts of the supply chain for the design, construction and operation of clean energy projects. To enable industry and governments to identify and fill the skills needs of the future, the Clean Energy Council has commissioned the Institute for Sustainable Futures to undertake a national survey of its membership on employment in renewable energy.

Stage one of the survey will cover the large-scale solar and wind energy sectors, distributed solar PV, manufacturing and supply-chain employment, hydro power (large-scale, small-scale and pumped hydro) and battery storage. The second stage (to be funded) is intended to cover bio-energy, renewable hydrogen, professional service employment and energy efficiency and demand management.

The key objectives of the project are to:

- Estimate employment in renewable energy now and until 2030 based on the projections of the Integrated System Plan of the Australian Energy Market Operator and the Whole of System Plan in Western Australia – by occupation, state and high-level regional analysis;
- Identify current skill and labour shortages and priority occupations to facilitate skills planning for the growth of renewable energy, and
- Identify opportunities for renewable energy to support energy transition for workers in the fossil fuel sectors.

The survey is currently underway and results are expected to be available in late 2019/early 2020.

### **We are only at the beginning of what is possible**

In August, the Clean Energy Regulator announced that the Renewable Energy Target had been met with the 6400 MW of new clean energy capacity that had been accredited since 2016. The social and economic benefits provided by this major period of investment across tens, if not hundreds, of regional and rural communities have been extraordinary. And this is only the beginning. The CEC estimates that at the present time, the projects that have been financially committed or are due to commence construction, represent \$27.67 billion of total capital investment, 15.7 GW of new clean generating capacity (nine-times the operating capacity of Liddell Power Station) and 16,650 direct construction jobs<sup>1</sup>.

Despite the investment to date, renewables still represent just 21 per cent of the generating capacity of our stationary electricity sector. If Australia is to have any hope of meeting its commitment to net zero emissions by 2050, we must decarbonise our stationary electricity sector well before then in order to also support the decarbonisation of other sectors (eg. transport). This investment is not currently assured, with many regulatory and network barriers in the way, great uncertainty and risk as to the timing of coal-fired power station retirements, and no long-term energy policy in place to provide the confidence that investors need to spend the billions of dollars required to build the next generation fleet of low-cost, clean energy supply.

With a strong, integrated energy and climate change policy, the Australian clean energy sector has the capacity to deliver on our net zero emissions goal, and we can see from the experience of just the last few years that this would generate billions of dollars of economic activity within regional areas, delivering tens of thousands of direct and indirect jobs, and supplementing farming income in many communities struggling to remain viable throughout prolonged drought.

For the benefit of regional communities, the environment and generations to come, we urge the Australian Parliament to support a strong, long-term energy and climate change policy that can underpin continued investment in Australia's ageing electricity sector.

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<sup>1</sup> As at 26 August 2019, <https://www.cleanenergycouncil.org.au/resources/project-tracker>

Thank you for the opportunity to make a submission to this Senate Select Committee inquiry. Should you have any queries about our submission, please do not hesitate to contact our Director Energy Generation, Anna Freeman, on 0417 033 752.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Kane Thornton', with a stylized flourish at the end.

Kane Thornton  
Chief Executive