

BUILDING STRONGER COMMUNITIES

Wind's growing role
in regional Australia





This report has been compiled from research and interviews in respect of select wind farm projects in Australia. Opinions expressed are those of the author. Estimates where given are based on evidence available procured through research and interviews. To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication; however, we do not assume any liability whatsoever for the accuracy and completeness of the above information.

This report does not purport to give nor contain any advice, including legal or financial advice and is not a substitute for advice, and no person may rely on this report without the express consent of the author.

PHOTO (COVER):

Pouring a concrete turbine footing. © Sapphire Wind Farm.

PHOTO (ABOVE):

Local farmers discuss wind farm projects in NSW Southern Tablelands. © AWA.

CONTENTS

Executive Summary	2
Wind Delivers New Benefits for Regional Australia	4
Sharing Community Benefits	6
≈ Community Enhancement Funds	8
≈ Addressing Community Needs Through Community Enhancement Funds	11
≈ Additional Benefits Beyond Community Enhancement Funds	15
≈ Community Initiated Wind Farms	16
≈ Community Co-ownership and Co-investment Models	19
≈ Payments to Host Landholders	20
≈ Payments to Neighbours	23
Doing Business	24
≈ Local Jobs and Investment	25
≈ Contributions to Councils	26
Appendix A – Community Enhancement Funds	29
Appendix B – Methodology	31
References	32
Case Studies	
≈ Over a hundred projects and counting: Snowtown's Lend a Hand Foundation	9
≈ Building long lasting benefits through collaboration: Sapphire Wind Farm's Construction in the Community	10
≈ Investing in local energy sustainability: The Gullen Range Clean Energy Program	13
≈ A short history of Community Enhancement Funds in New South Wales	14
≈ Helping good ideas become reality: Hepburn Wind	17
≈ Extending the benefits to ownership: Coonooer Bridge Wind Farm	18
≈ Spending Locally	21
≈ Eight years on and still plenty to do: Waubra Wind Farm Community Fund	22
≈ Getting things done locally: Boco Rock Wind Farm	27
≈ Starting the conversation: exploring community investment at Flyers Creek Wind Farm	28

EXECUTIVE SUMMARY

**“ SHARING FINANCIAL
BENEFITS EQUITABLY
AND EFFECTIVELY WILL
ENSURE THAT CLEAN
ENERGY GENERATION ALSO
MAKES A LONG-LASTING,
POSITIVE CONTRIBUTION
TO RURAL AUSTRALIA'S
SOCIAL FABRIC.**



PHOTO: Cape Bridgewater
Wind Farm in Victoria.
© Pacific Hydro.

Australia's 82 operational wind farms deliver significant financial and social benefits to their host communities. Sharing these benefits equitably with local host communities ensures these projects generate not just much-needed clean energy, but also strengthen the social and economic fabric of regional Australia.

Wind farm construction has delivered an economic boost of almost \$4 billion to regional Australia—over half of this in the last five years with current wind farm construction projects injecting a further \$1.6 billion in economic activity into the regional economy.

The two gigawatts of new wind farm capacity currently under construction have created an estimated 1,950 direct local jobs and a further 4,500 indirect jobs in local businesses that supply to the projects.

Across the 25 year life span of Australia's existing wind farms and wind farms under construction, an estimated \$10.5 billion could be delivered to host communities.

Meanwhile, between \$19 and \$21.5 million goes directly into regional communities through payments to host landholders and wind farm Community Enhancement Funds (CEFs) every year. With fourteen more wind farms under construction, that annual figure will increase to between \$30 and \$32.5 million.

From 2019, Community Enhancement Funds will make available \$2.5 million annually for community projects. A diverse range of other benefit sharing mechanisms will see additional payments go to neighbouring landholders, local councils and community shareholders. If the 70-plus wind farms in the development pipeline are constructed, more than \$7 million could flow into regional communities through CEFs each year.

This report investigates Community Enhancement Funds and other benefit sharing mechanisms to better understand how wind energy is contributing to the resilience of regional Australia. A range of case studies show how these funds deliver tangible outcomes in towns across rural Australia.

The report also presents the first catalogue of wind farm Community Enhancement Funds across the nation and illustrates the direct and indirect financial and social benefits to Australia's regional communities from wind power.

Benefit sharing mechanisms are examined against the background of the substantial economic boost that wind farms give to their host communities through construction and ongoing employment.

As Australia builds enough new wind power to meet the 2020 Renewable Energy Target and the rapidly falling cost of wind energy drives wind installation strongly thereafter, wind districts throughout regional Australia will continue to benefit.

Sharing financial benefits equitably and effectively will ensure that clean energy generation also makes a long-lasting, positive contribution to rural Australia's social fabric.

WIND DELIVERS NEW BENEFITS FOR REGIONAL AUSTRALIA

“THE WAY ECONOMIC
BENEFITS ARE SHARED
WITHIN A REGION IS IMPORTANT
AND CAN DETERMINE THE
EXTENT TO WHICH A WIND FARM
IS SEEN TO CONTRIBUTE TO THE
‘WHOLE COMMUNITY.’



Right now, wind energy is booming in Australia. Nowhere is this boom being felt more than in the farming communities which host them. This report looks at how this historic shift is bolstering regional economies and the importance of sharing financial benefits within local communities.

The global movement away from fossil fuels to clean energy has gained momentum in recent years **and will continue to drive Australia's wind energy sector for decades to come.**

At the end of 2016, Australia's 79 wind farms accounted for 5.3 per cent of the electricity generated nationally.¹ By the end of the decade, an additional four gigawatts of wind capacity will have been added to the grid, putting wind farms on track to nearly double 2016's output and supply over 10 per cent of Australia's electricity.²

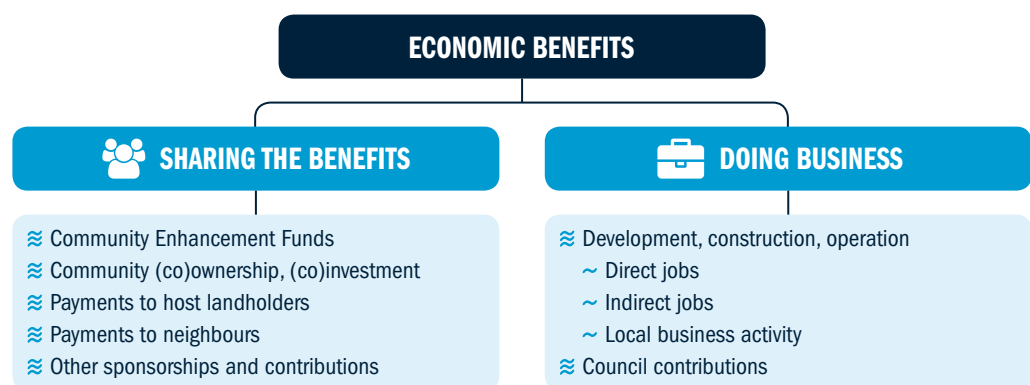
Australian wind farms range in size from a two-turbine community wind farm, Hepburn Wind, to the 140 turbine Macarthur Wind Farm. They are dispersed widely throughout the rural and regional parts of the country where the wind is strongest. Most are found in the south east corner of Australia—in South Australia, Western Victoria, Northern

Tasmania and Southern NSW. Wind farms are also found in the south western corner of Western Australia. In Queensland, large scale wind farms are a burgeoning industry, with three currently under construction.

Together with large-scale solar farms, wind farms are shifting the country's power generation to a much wider expanse of the country than the ageing coal basins of the Hunter Valley, Latrobe Valley, Central Queensland and Collie. This decentralisation is also delivering the economic benefits of hosting power generation to places that have never experienced them before.

These benefits accrue in a range of different ways that improve the resilience of towns like Jamestown in South Australia, or Ararat in Victoria, which, like many rural towns, rely heavily on agriculture for their local economy.

Figure 1 How wind farms contribute to regional economic and social growth.



The way economic benefits are shared within a region is important and can determine the extent to which a wind farm is seen to contribute to the 'whole community'. Many wind farms are taking a proactive approach to benefit sharing and through deep community engagement, are working to understand community needs and find meaningful ways to contribute to meeting those needs.

This report explores how Australian wind farms share financial benefits with the communities that host them—and the social benefits that brings. This is presented against the backdrop of the substantial economic boost wind farm construction and operation provides for regional economies.



SHARING COMMUNITY BENEFITS

**“ BETWEEN \$19 AND \$21.5
MILLION CURRENTLY FLOWS
INTO REGIONAL COMMUNITIES
THROUGH PAYMENTS TO HOST
LANDHOLDERS AND COMMUNITY
ENHANCEMENT FUNDS EVERY YEAR.**

**WITH FOURTEEN WIND FARMS
CURRENTLY UNDER CONSTRUCTION
THAT ANNUAL FIGURE WILL
INCREASE TO BETWEEN
\$30 AND \$32.5 MILLION.**

PHOTO: Community event at Hepburn Wind.
© Studio Aton for Hepburn Wind 2017
at the Pioneering Communities Event.

Benefit sharing by large-scale infrastructure projects means a project can contribute to the social and economic wellbeing of the local community, achieve higher levels of support and help community cohesion and collaboration.³

The ways in which benefits are shared are typically referred to as benefit sharing mechanisms (BSMs). International research suggests that BSMs are effective tools to build better relationships and community-wide support for wind farms.⁴ While BSMs are referred to in some planning regulations, there is little to no legislative requirement for BSMs in Australia. While this may have resulted in delayed implementation, it has also allowed for more creativity in projects where they are implemented. As such, the BSMs implemented in Australia are diverse; including community enhancement funds, payments to host and neighbouring landowners, subsidies for power and energy efficiency measures, (co)ownership or (co) investment into a project, gifting of shares and one-off sponsorships to name some common examples.

EY divide BSMs into three broad categories;

- ≈ payments to communities;
- ≈ payments to landowners; and
- ≈ community (co)ownership.⁵

Payments to communities take a number of forms, however, the most common form is through Community Enhancement Funds, where grants are made available for community groups to use for specific projects.

Payments to landholders are generally made as lease payments to landholders hosting wind farm infrastructure such as wind turbines, substations and power lines or, increasingly, to neighbouring landholders under neighbour agreements or through gifting an equity stake in the wind farm.

Community (co)ownership or (co)investment allows community members to own all or invest in part of a wind farm project. Ownership or investment may be open to the neighbourhood area, the local community or made available to a wider cross-section of the community such as a state or nationwide.

As the Australian wind industry has matured over the last 30 years, benefit sharing has become central to the development process. This year, between \$19 and \$21.5 million will flow into regional communities through payments to host landowners and Community Enhancement Funds. With fourteen more wind farms currently under construction that annual figure will increase to between \$30 and \$32.5 million (see Appendix B).

As BSMs have developed with the wind industry, it has become clear that a one-size-fits-all approach to benefit sharing isn't appropriate. Geographical appropriateness, scale, community demographics and delivery of BSMs are as important as the contributions themselves. No two communities are the same, so effective and ongoing community engagement is critical to ensure that BSMs fit the local community context. Indeed, the very discussion with community leaders and representatives to match BSMs to community needs can strengthen the relationship between the community and the proponent. It is, however, a two-way discussion that must take into account other project parameters, such as financial viability. As EY note, it is important that the value of BSMs is balanced against risks to project viability and that community expectations in regard to BSMs are realistic: "BSMs may not result in larger financial benefits, but rather the broader distribution of benefits amongst the community members."⁶

From Merredin, WA to Jamestown, SA and from Portland, Victoria to Inverell, NSW dozens of small regional towns are reaping the benefits of distributed wind energy projects. As the cost of renewables plummets and communities continue the shift to 100 per cent renewable energy, we believe BSMs will become even more common and varied than they are now.

Community Enhancement Funds

Many wind farms in Australia have Community Enhancement Funds (CEFs), voluntary payments made by a wind farm for distribution to community groups, programs and projects.

As wind farm construction has picked up momentum over the last decade with support from government mechanisms such as the Renewable Energy Target (RET) and state- and territory-based schemes, wind farm CEFs have become increasingly common, with a steady increase in the amount of money flowing from CEFs into communities. Fourteen years after the first CEF, more than 40 CEFs across five states have delivered more than \$6 million into projects, events, equipment and organisations around Australia. The number and size of CEFs is growing sharply, and by 2019, \$2.5 million will be flowing into communities each year through CEFs (see Appendix A).

There are currently no legislated requirements for CEFs in Australia, which has led to enormous diversity in the form, function and size of funds from region to region and project to project. There is also considerable freedom for wind farm representatives, Councils and communities to jointly determine a fund that best suits the region and the people involved. The shape and workings of the CEFs in Australia therefore typically reflect the community hosting the wind farm.

For instance, some CEFs are managed by the wind farm company, with input from community representatives. An example of this is the Sustainable Communities Fund at Pacific Hydro's wind farms in South Western Victoria, one of the earliest wind farm CEFs. The Fund has put over \$1.4 million towards over 300 projects since its establishment in 2005. Some CEFs are managed wholly by community representatives with input from the wind farm company, such as the Waubra Wind Farm Community Fund which is run by a community committee. Others again are run by Council-managed, Section 355 committees comprised of a range of stakeholders to ensure distribution of representation. The Boco Rock Wind Farm CEF is an example of this model, which is common across NSW. Some wind farm CEFs, such as the Snowtown Wind Farm Lend

a Hand Foundation, are entirely managed by community representatives.

Commonly, a set amount of funding per year is made available to local communities during the operational life of the project. The funding amount is typically based on installed megawatts or number of wind turbines in a project, and is typically CPI linked. In many cases, funding grants are made through an application process and in accordance with guidelines or terms of reference determined by the management committee to achieve fairness and transparency. A number of projects, however, have devised unique ways to share funds with the broader community. For example, Bodangora Wind Farm in central NSW has committed two per cent of the income from a single wind turbine to a CEF each year in addition to a per wind turbine commitment. This means the community effectively takes a stake in the wind farm's performance, enjoying its success in the good years but also exposing a portion of its income to downturns. In Western Australia, the Denmark Community Wind Farm directs ten per cent of the dividends from the wind farm each year into its Community Sustainable Living Fund, while in Victoria, Hepburn Wind, the first community wind farm in Australia, has partnered with energy retailer Power Shop to enhance the Energy Fund component of their CEF.

With more than 90 wind farms operating or under construction and more than 70 in the pipeline at the start of 2018, wind farm projects around Australia have the potential to support regional townships and community networks with an estimated \$7 million in CEF funding every year. While urbanisation and a changing climate continues to threaten the livelihood of regional and rural townships, geographically diverse wind projects present an enormous opportunity to invest in regional economic sustainability and growth. CEFs create strong ties between projects and communities, and within communities, and have proven to be a valuable contribution to many areas around Australia.

“ IN 2019, \$2.5 MILLION WILL FLOW INTO REGIONAL COMMUNITIES THROUGH COMMUNITY ENHANCEMENT FUNDS ALONE.



CASE STUDY

PHOTO (ABOVE):

Snowtown town entrance sign.
© Weekendnotes.com.

PHOTO (INSET):

The Barunga Gap school bus, supported by the Lend a Hand Foundation.
© Tilt Renewables.

Over a hundred projects and counting: Snowtown's Lend a Hand Foundation

"It's helping the community, and not just Snowtown, but all the towns in sight of the wind farm."

The Snowtown Wind Farm Lend a Hand Foundation has been operating for as long as the wind farm—almost ten years. Alan Large, a Snowtown resident, has sat on the foundation committee since it was formed and has a lot of stories to tell about what the foundation means for his community.

"In the last two years we've provided funds for a weather station for the Snowtown Country Fire Service, supported the Bute Men's shed, and contributed to the Brinkworth history group for their museum and a reprint of their centenary book through grant funding.

"In the past, we've helped the Brinkworth bowling club paint their building; the Bute Lions club and primary school plant trees and paint telegraph (stobey) poles and the Snowtown football club upgrade their changing rooms.

In 2017 the Lend a Hand committee contributed \$15,000 to get the Snowtown primary school Barunga Gap school bus route up and running again. The government-run bus route had been cut

because of dwindling student numbers and the school was looking for money to continue the school run with a new bus. For families of out-of-town preschool and primary school students, the bus was a critical service.

The school was able to leverage Lend a Hand funds to raise additional funding from other avenues, and now has the school bus route running again.

Snowtown also has a community bus which the foundation supported a few years back—which any community group can hire.

"At the end of the day, almost ten years on, we still manage to spend all the money each year—we still get plenty of application forms," said Alan.

"The foundation is good for the community."



“ IF ALL THE WIND FARMS IN THE DEVELOPMENT PIPELINE TODAY ARE BUILT, PROPOSED COMMUNITY ENHANCEMENT FUNDS COULD SEE MORE THAN AN ESTIMATED \$7 MILLION FLOW INTO COMMUNITY PROJECTS THROUGH COMMUNITY ENHANCEMENT FUNDS.



CASE STUDY

Building long lasting benefits through collaboration: Sapphire Wind Farm's Construction in the Community

"It's about the legacy you leave."

While Community Enhancement Funds across the life of a wind farm are becoming increasingly common, Sapphire Wind Farm's Construction in the Community program puts the focus on the initial two-year construction phase. With so much construction muscle available on-site during the construction phase of the wind farm, there is an opportunity to knock over some quick community projects in a day or less that would have taken community members weeks and longer to complete on their own.

The wind farm developer, CWP Renewables, sought applications for construction projects that could build relationships with the community and support positive long-term outcomes.

Kylie Hawkins, manager of Glen Industries is one of the successful applicants of the Construction in the Community program, taking the opportunity to put the finishing touches on a community garden that brings people together with a purpose.

"The Glen Initiative food garden is a community garden with a twist—a space to bring together volunteers, generations and organisations and to generate community support along with the fruit and veg."

Glen Industries is an Australian Disability Enterprise providing supported employment and training for people with a disability. In 2014 the organisation established a food garden in an unused lot in Glen Innes to bring people together, grow local produce and help those in need. Since then, the garden has also hosted a youth program to establish a bush tucker garden with another non-government organisation and now supplies free bags of fruit and vegetables each week to vulnerable members of the community.

While an initial grant allowed them to establish the garden, two final project elements needed specialist skills and resources to be completed. With the help of the wind farm, Glen Industries will be able to build a sizeable deck and deck roof around the hut at the garden, to create a communal space for gatherings and events; and build a dome growing house to complete the garden.

"It's about community helping community," said Kylie.



PHOTO (ABOVE):

Inverell Community event.
© Sapphire Wind Farm.

PHOTO (INSET):

Glen Industries' community garden tomato plant day event 2017.
© Glen Industries.

Addressing Community Needs Through Community Enhancement Funds

The foundations of rural communities have long been built on self-reliance. Hundreds of kilometres from capital cities, small towns survive by locals coming together and devoting their own time and resources to maintaining and operating the basic public infrastructure of fire brigades, public buildings and facilities.

Often, even the local school and kindergarten need help to get by. Key events in the local calendar like the Agricultural Show only happen because groups of willing volunteers make them happen. This kind of volunteer work is the expression of residents' pride in their town.

Wind farm CEFs have provided a welcome boost of financial assistance to help make this work happen. By engaging with the community, wind farms have been able to identify community needs and assist locals to look after their towns.

The community projects funded by CEFs around Australia are just as diverse as the towns, regions and communities themselves. Projects that have been realised through CEF

funding can be substantial, such as the \$100,000 contribution towards upgrading IT and educational equipment in schools in WA through to the \$1,000 granted for a playground project in NSW. Their purpose also ranges across different aspects of community life from provision of sporting facilities, equipment and sponsorship to support for Landcare, aged care facilities and neighbourhood centres.

A number of CEFs direct funds towards enhancing sustainability, such as the Clean Energy Program at Gullen Range Wind Farm and the Denmark Wind Farm Community Sustainability Fund. Others accept a broad range of requests, with geographical boundaries, grant size limits or other mutually agreed objectives and scope.



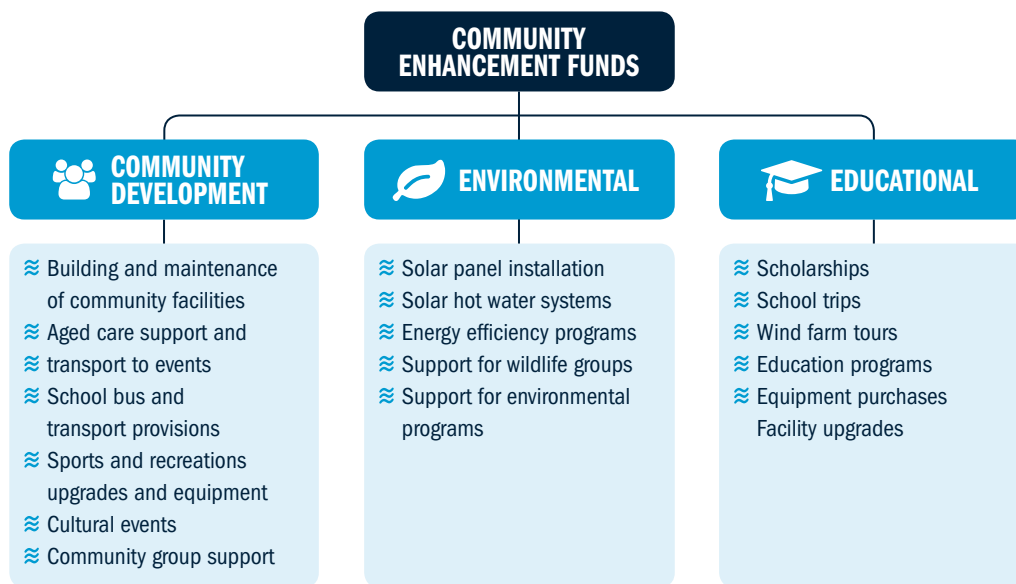
PHOTO: Vocational education teachers from across New England and North West NSW visit Sapphire Wind Farm. © Sapphire Wind Farm.

The strong desire to deliver long term benefits for local communities has driven the development of CEFs. Over the years, hundreds of community applications have been made and granted. Country Fire Services, Country Women's Associations, Landcare groups, golf and bowling clubs, men's sheds and progress associations are just some of the many organisations that have replaced equipment, run projects, built community infrastructure and supported their communities through CEF grants.

Community projects that have been realised as a result of wind farm CEFs range from

Indigenous and community gardens, workshops for resilient living and health initiatives, food coops, local tourism marketing materials and upgrades to community facilities such as maternity and children's rooms, playgrounds and sporting clubs. Equipment has also been purchased for Rural Fire Services, Surf Lifesaving Clubs, native plant groups, theatres, public schools, libraries, kindergartens and community support services. You name it, somewhere, a local community has found a way to fix it, upgrade it or make it happen with the support of wind farm CEF funding.

Figure 2 Sharing the Benefits. Where CEF funding flows in the community.



“THE STRONG DESIRE TO DELIVER LONG TERM BENEFITS FOR LOCAL COMMUNITIES HAS DRIVEN THE DEVELOPMENT OF CEFs.



CASE STUDY

PHOTO (ABOVE):
Richard Diamond inspecting
the Diamond's solar array.
© Robyn Diamond.

PHOTO (INSET):
Gullen Range Wind Farm.
© Australian Wind Alliance.

Investing in local energy sustainability: The Gullen Range Clean Energy Program

Given wind farms' generation of clean energy, there's logic to Gullen Range Wind Farm's decision to help locals improve their sustainability. Established in 2013, the Clean Energy Program is in addition to a more widely applied community enhancement fund.

Grants of up to \$6,500 are available to residents and businesses within 5km of the wind farm for solar hot water, solar PV installations or other energy efficiency measures. The program is intended to run for the life of the wind farm and has already received 67 applications, with 13 projects completed.

Robyn Diamond and her husband Richard live ten kilometres outside Crookwell in a 140-year-old stone house that was once the teacher's residence for the local school. During their first winter in the house, they realised just how hard it was to keep it warm. They decided to install solar panels on their house through the program.

"It helped us save money by powering our new heater during winter using solar," Robyn said.

"The house already had hydronic wall heaters that we would use by burning wood in a stove to heat the water. We were chopping and burning wood every day just to make the house comfortable. If we were out for a short time, the house would be bone chillingly cold when we got home."

"Gullen Range Wind Farm paid for an energy audit of our house, and we immediately saw the opportunity to switch to electric heating and install solar panels to offset our electricity bills. We installed a 5kW PV system along with a very efficient air sourced heat pump. Last winter we ran the heater through the day, using electricity directly generated from the solar panels. We saved money,

and there was a lot less work chopping wood.

We also expect to be able to export extra electricity to the grid over summer, which will help balance the winter heating costs." Another wind farm neighbour, Dimity Taylor, also installed solar panels through the program after an energy audit of her home.

"Wind farm neighbours get infrastructure that will continue to save them money, the local economy gets a boost from increased demand for local solar installers, and there is an increase in renewable energy installation—a threefold benefit!" Dimity said.

"Most people are using the funds to install solar PV panels or solar hot water systems, but others are looking to use the fund for double glazing, insulation and battery storage."

"The Clean Energy Program is a community initiative that Gullen Range Wind Farm is very proud to be a part of," said Derek Powell, Deputy General Manager Gullen Range Wind Farm.

"What sets it apart from most community benefit schemes is it provides benefits directly to people who live near the wind turbines. Our grants for solar PV, solar hot water or other energy efficiency initiatives result in savings on their power bills as well as decreasing their carbon footprint."





CASE STUDY

A Short History of Community Enhancement Funds in New South Wales

CEFs were first established in NSW in 2007 as a way for farmers and landholders in the immediate precinct of a wind farm to share the financial benefits. The CEF program for the 30 MW Cullerin Range Wind Farm was designed by the proponent in consultation with the Upper Lachlan Shire Council and local community representatives.

PHOTO:

Recipients of Taralga Wind Farm CEF grants for 2018 recognised for their work.
© Adam Chandler, Pacific Hydro.

It required the proponent to contribute \$25,000 (increased by CPI each year) per year for the life of the wind farm. The arrangement was confirmed in the Department of Planning's conditions of consent for the project. That fund has since distributed over \$200,000 in grants for local community groups and projects. A similar condition was adopted by the Gullen Range Wind Farm in June 2009, with fund contributions set at \$1,666 plus CPI per wind turbine per year.

In preparing for new wind farm projects in their area, Yass Valley Council became the first NSW Council to institute CEF requirements in council policy. Adopted in 2016, the Community Enhancement Fund policy applies to all major projects, including mining projects and wind farms.⁷ It stipulates that a CEF be established "for the provision of community facilities, infrastructure and/or environmental conservation." Funds "are to be expended on projects/activities that will benefit the local community with initial priorities being within the immediate vicinity of the site (and) subsequent priorities being elsewhere in the Local Government Area." Yass Valley's policy has also been adopted by neighbouring Hilltops Council.

In recent years, as the capacity in megawatts of wind turbines has grown, a number of projects have increased fund contributions to \$2,500 plus CPI per wind turbine per annum, including the recently completed Sapphire and White Rock Wind Farms in Northern NSW. Some future projects, such as the Collector Wind Farm, are going further, planning a \$200,000 per annum contribution for their 63 wind turbine project equating to more than \$3,000 per wind turbine.

The rapid growth in capacity and efficiency of wind turbines suggests that per turbine amounts may no longer be the most appropriate way to determine CEF contributions. Linking future CEF contributions to the plated capacity of wind turbines—that is, an amount per megawatt rather than per wind turbine—will allow CEF contributions to keep pace with the amount of energy, and therefore income, that a wind farm produces.

Additional Benefits Beyond Community Enhancement Funds

Many wind farms provide benefits, both financial and in-kind, for the local community in addition to CEFs. The financial value of these additional contributions is often difficult to calculate, and as such, they have not been considered in the annual benefit sharing figures used throughout this report.

At Sapphire Wind Farm in the Northern Tablelands of NSW, for example, project owners wanted to make a contribution to the local community during construction of the project, and approached their construction team, and the local community for assistance to discuss how to realise long term benefits. The result was their legacy program “Construction in the Community,” which will see the wind farm construction team work on small to medium sized infrastructure projects for local organisations.⁸

Waubra Wind Farm provides annual student scholarships to assist with tertiary education costs.⁹ Wind turbine blades have been reimaged as tourist attractions and donated to local communities, such as at Mumbida Wind Farm in Western Australia.¹⁰ In sunny western NSW, Silverton Wind Farm will be offering 5kW solar PV systems to the residents of Silverton.¹¹

These types of contributions have shown that the best outcomes are most often reached through good communication and collaboration between projects and communities.



GRAPHIC: Just some of the regional towns throughout Australia's wind districts that benefit each year from wind farm CEFs.

Community Initiated Wind Farms

While community owned wind farms are a common sight in Europe, only two community initiated and owned wind farm projects currently exist in Australia.

Hepburn Wind, near Daylesford in Victoria, was the first of its kind when it began operating in 2011.¹² The project is owned by a democratic cooperative of almost 2,000 members, all of whom hold a single vote regardless of the number of shares they own. Denmark Community Wind Farm, near Albany in Western Australia is a community company. Local businesses were employed at every stage of the project, making it “a true community effort.”¹³

While Hepburn Wind grew out of a desire to build community owned wind energy, and the Denmark project grew out of a desire to tackle climate change at a local level, both projects are now integral parts of their respective communities. By their very nature, such projects deliver substantial benefits to their local communities, through ownership and decision-making roles.¹⁴

Financial benefit sharing is a key part of the vision for both projects but is approached somewhat differently to commercial projects. At Hepburn Wind, a commitment was made to create a baseline fund each year of operation for community projects, energy projects, neighbourhood programs and sponsorship. Members and the broader community decide how that money is spent each year through surveys and feedback. At Denmark Community Wind Farm, a not-for-profit owns ten per cent of the project, and offers the dividends from that ownership stake as a fund for community sustainability projects.

A community-based committee evaluates applications for grants funding. Despite having very different benefit sharing structures, these two projects more than pull their weight when compared to other wind farms around Australia. On a per megawatt basis community owned wind farms make available six times more funding for community projects than the average Australian wind farm (see Appendix A).

With such extraordinary benefits and support for full community wind farm ownership, why don't we see more of it? There are significant barriers to community ownership of large-scale renewable energy in Australia that hamper progress; long development timelines, significant capital requirements and policy uncertainty to name a few. Nevertheless, at least three community-owned wind farm projects are in the development phase in Western Australia, Victoria and NSW and some state governments are exploring ways to make it easier for projects to be approved and built. The environmental, economic, social and technological benefits of community owned clean energy, and growing support for projects should encourage us to continue to tackle these barriers.¹⁵

Australia has many opportunities to remove barriers to and encourage implementation of community renewable energy, and the evidence of support for these projects shows we should be getting on with the job.

“COMMUNITY OWNED WIND FARMS ARE DEVELOPED, FUNDED, OWNED AND OPERATED BY THE COMMUNITY.”



CASE STUDY

PHOTO:

Danish Community Energy Expert, Søren Hermansen, visits Hepburn Wind.
© Studio Aton for Hepburn Wind 2017 at the Pioneering Communities Event.

Helping good ideas become reality: Hepburn Wind

The two turbines at Hepburn Wind, named Gale and Gusto, have been generating clean energy since 2011, and pumping benefits into the community at the same time.

The community fund is split into four distinct streams. These streams have been created to ensure funding is well distributed locally, and in order to realise projects that are important to the local community. Project selection is by a community fund committee made up of local members of the co-operative.

They include:

- ≈ A sponsorship program providing sponsorship for local events such as making the annual Words in Winter festival carbon neutral and supporting New Year's Eve Parades;
- ≈ An energy fund that is used to support local renewable energy and energy efficiency projects such as installation of an electric vehicle charging station in Daylesford and solar for community buildings;
- ≈ A community grants program that provides grants for local organisations that "are working to build a vibrant and sustainable community, with a view to strengthening and building local

resilience." This program has funded dozens of projects with a focus on assisting local co-operatives to establish such as the Daylesford Wholefoods Co-op, as well as the Daylesford Community Radio and Daylesford Community Cinema; and

- ≈ A neighbourhood benefits program that seeks to ensure that neighbours to the wind farm realise benefits, including electricity bill contributions, share offers, local infrastructure support for the CFA, local hall and recreation reserve.

Decisions regarding this unique suite of community funding streams is member led, through surveys. The surveys are used to gauge member opinions about how much funding is going into the five grant areas, the success of the funding and whether or not changes are made to the suite of streams over the medium term so it is constantly tailored to the genuine need in the community.

“ ON A PER MEGAWATT BASIS, AUSTRALIA'S COMMUNITY-OWNED WIND FARMS MAKE AVAILABLE SIX TIMES MORE FUNDING FOR COMMUNITY PROJECTS THAN THE AVERAGE AUSTRALIAN WIND FARM.



CASE STUDY

Extending the benefits to ownership: Coonooer Bridge Wind Farm

With the notable exception of Hepburn Wind and the Denmark Community Wind Farm, ownership of operating wind farms has been the preserve of large financial institutions. The first commercially-owned wind farm to change that is Windlab's Coonooer Bridge Wind Farm, co-owned with Eurus Energy, which commenced operation in central Victoria in 2016.

In an industry-leading move, Windlab offered free shares in the Coonooer Bridge Wind Farm company to host and neighbouring landholders with an option to buy more if they chose. As well as delivering these families a regular return on their shares, it gave them a seat at the table in decisions during the development process and a say in how the wind farm turned out. Altogether, a total of 33 local landholders own around 4% of the total project, which is worth over \$20 million.

"I think it's a really good way to do it," says June Williams, resident of nearby St Arnaud and owner of a neighbouring farm at Coonooer Bridge.

"We're happy to see the money split up. There's country towns that could use a bit of help."

This extra boost comes at a critical time for the surrounding community who have struggled through dry weather for many years.



PHOTO (ABOVE):

Coonooer Bridge Wind Farm.
© Windlab Asset Management.

PHOTO (LEFT):

June and David Williams.
© Rod Male.

"We've virtually had a 15-year drought. Cropping was very poor. The number of kids at the school in St Arnaud has fallen.

"If the farmers are battling, the whole town battles. The money that goes to individuals does definitely go into the town.

Windlab has since replicated this model at the \$75 million Kiata Wind Farm which opened in 2017 where 24 landholders own 2.7% of the project.

For June Williams, it's a simple way to make sure everyone gets a piece of having a wind farm in the area.

"We never worried about the wind farm but it's just nice to know that we're part of it."

Community Co-ownership and Co-investment models

Other approaches to neighbourhood equity, community ownership and community investment in wind farms are also starting to emerge. While the capital required to develop, build and operate large-scale wind farms tends to limit investors to large financiers like banks, corporations and superannuation funds, some developers are looking for ways to open the door to community financial participation.

Models being explored include various forms of co-ownership and co-investment. Lane and Hicks (2018) define co-investment as a model in which a community investment vehicle buys rights to a portion of the earnings of the Renewable energy project but has no decision-making power or control over the operation of the asset. Co-ownership, however, is where a community-owned vehicle owns a portion of the renewable energy development and plays an active role in decision making.¹⁶

Alongside their public offer in 2010, Hepburn Wind offered free shares to its 67 neighbours within 2.5 kilometres of the wind farm with significant take-up and additional investment made into the co-operative. The commercial sector followed suit in 2016 when Coonooer Bridge Wind Farm near Bendigo in Victoria created a structure that included the neighbouring farming community alongside other financiers.¹⁷ The developer, Windlab, offered shares free of charge to eligible wind farm neighbours, resulting in 33 landowners owning four per cent of the now operational project.¹⁸ This model was later replicated at Windlab's next project, the \$75 million Kiata Wind Farm, where 24 local shareholders own 2.7 per cent of the project.

In NSW, Sapphire Wind Farm has committed to be the first large scale wind farm in Australia to offer the opportunity of public investment not only to those in the immediate vicinity but also beyond, to the wider community.¹⁹ While the proposition is still in its infancy, over \$5 million has already been pledged and it is likely that investment from local community members will be prioritised over those outside the region.²⁰

Flyers Creek Wind Farm, near Orange, entered into discussions in 2013 with a local co-operative about the possibility of community investment in a single wind turbine, and while the initial concept has changed considerably, discussions about community investment continue to progress.²¹

Overseas, community ownership, community co-ownership and community co-investment is commonplace for wind farms, and these models enjoy high levels of community support.²² For example, in Denmark in 2001, 86 per cent of the wind turbines in the country were cooperative owned, and in 2013, 46 per cent of Germany's 63 GW of renewable energy was locally owned.^{23,24} In the Danish private sector there has been a long-established requirement of all new developments that a minimum of 20 per cent ownership is offered to the local community.²⁵ In general, the European wind industry found its feet through community initiative and investment and provides many examples of how the sector could be opened up in Australia.

The support for and engagement with wind farms that incorporate co-ownership or co-investment opportunities show that the benefits of wind energy go far beyond a cleaner environment, and can be enjoyed by a wide cross-section of stakeholders when an emphasis is placed on inclusion of all stakeholders, and community led development.

Payments to Host Landholders

Agriculture is the lifeblood of regional Australia. The core business of producing food and fibre hasn't skipped a beat as wind energy has joined the list of commodities being produced on Australian farms.

Wind turbines have fitted neatly into farming life, taking up only a small amount of land and allowing farmers to continue their usual activities. In many cases, farmers have been able to accommodate wind turbines on less productive hill country, increasing the overall productivity of their land. Payments to those who host wind turbines are typically made through annual lease payments that are made for the life of the wind farm. Lease payments to farmers represent a substantial flow of money from wind farms to regional host landowners. Across Australia's windiest regions, a new, reliable, long term source of income now helps to support farming communities.

Wind farms operating now will pay an estimated \$17.5 to \$20 million to host landowners each year. The wind farms currently under construction will add an additional \$12.5 million to those payments annually (see Appendix B).

These payments have been critical for many families, delivering year-in, year-out on-farm income and helping them ride out extreme weather and commodity price fluctuations.

As well as getting farms through tough times, these payments also help families with the tricky problem of succession, making the farm business more attractive to the next generation and providing extra breathing space to make the right decision for those involved.

It's a truism that money never stays long in a farmer's pocket. In small rural towns, commodity prices are a big talking point and farmers and their circumstances are the main indicator of the health of the local economy. When farmers hire staff, purchase supplies, repair equipment and invest in new machinery this pumps money into local businesses to the benefit of the whole town. As the case study on page 19 demonstrates, there's never a shortage of things to be done on the farm and plenty of them need money to be spent.

There are several hundred farmers across Australia who now enjoy annual payments over a 25-year life span of a typical wind farm. That's a big boost to the resilience of a lot of rural towns and businesses who have to struggle year to year with the ups and downs of agriculture.



PHOTO: Sapphire Wind Farm Landholders visit construction site. © CWP Renewables.



CASE STUDY

PHOTO:

Sheep farmer and wind farm advocate, Charlie Prell, pictured in his woolshed. © Lynne Strong.

Spending locally

Charlie Prell is a farmer and host landholder at the Crookwell 2 Wind Farm, currently being built near Goulburn in NSW. He has been receiving rental payments for the project for some years.

Wages to local employees	\$16,900
Repairs to cottages on the farm (permanently rented to locals)	\$4,600
Rebuilding the foundations to the shearing shed	\$8,100
Replacing and upgrading fences	\$49,300
Repairing the roads on the farm	\$17,500
Weed control	\$9,200
Repairs to my house	\$31,400
Repairs to my father's house	\$17,100
Donations to charitable causes	\$4,600

Total to the local economy	\$158,700

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.

"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."

“ WIND FARMS CURRENTLY PAY AN ESTIMATED \$17.5 TO \$20 MILLION TO WIND FARM HOSTS EACH YEAR THROUGH LEASE PAYMENTS. WITH THE ADDITION OF WIND FARMS CURRENTLY UNDER CONSTRUCTION, THIS FIGURE IS ESTIMATED TO RISE TO BETWEEN \$27.5 AND \$30 MILLION PER ANNUM.



CASE STUDY

Waubra Wind Farm Community Fund: Eight years on and still plenty to do

David Clark's family has lived at Glenbrae on the outskirts of Waubra since the early 1900s. When he's not busy managing his family farm or looking after his three children (or indeed, doing his fourth stint as Mayor of the local Pyrenees Shire), he manages the Waubra Wind Farm's Community Fund as its part-time Executive Officer, assisting the Fund's members to discharge their duties.

David describes the job as "I do the paperwork and they make the decisions. I can give them the three-year plan, but they've got to make sure it delivers."

The Fund Committee is unusual in that it is made up of over a dozen community groups from around the area, including three Country Fire Authorities, three Landcare groups, the Recreational Reserve, local school and preschool, the Lions Club and a range of sporting groups. Every group, including the wind farm operator, gets one vote each. "These are not natural alliances so working on the Fund Committee brings them together," says David.

"Community people are the ones signing the cheques so it deals them into the game."

In its eight years of operation, the Fund has now covered what David calls "the community facility stuff across the local footprint". In funding around fifteen projects every year, they've sorted out the fire trucks, the fire shed, purchased iPads for the schoolchildren and fixed the playing surface on the footy oval. About 800 trees are given away every year to over 80 people from around the district. Community groups are supported at a minimum level year-in and year-out, with larger sums going to major projects as required. These larger donations are then leveraged to secure further donations from other sources. For example, the Fund's cornerstone \$100,000 donation towards a new Waubra

Community Hub was part of a \$400,000 community contribution that secured \$1.8 million local facility that will serve them for decades into the future.

The challenge for the Fund now is to set its sights to the future. "I'm satisfied we've covered immediate needs. Now we're thinking about what people need to live in this community. Do we need a bus for kids to go swimming in the hot weather? And what makes Waubra a great place to live in and how to make it better? Maybe its cleaning up the blackberries and the willows on the main approach into town or maybe it's something more ambitious like a local smart grid."

Like the rest of the country, power prices are a major issue in Waubra. 25 councils across Victoria are running smart grid trials, combining solar panels and batteries to reduce reliance on grid power and bring down prices for the locals. "Maybe there's a co-op involved that the Fund sits alongside. I'm not sure how it would work just yet but these are the sort of things we can start to think about now in the knowledge that we've got the finances to make it happen."

The long-term future of the region has been a focus for the Fund since its inception. "We invest 5% of the fund every year so it still carries on after the life of the current wind farm," said David.

More information: www.waubra.org.au/services/waubra-wind-farm-community-fund/



PHOTO (ABOVE):

Waubra Wind Farm Viewing Platform on Pyrenees Highway. © Acciona Energy Australia.

PHOTO (INSET):

David Clark. © Supplied.

Payments to Neighbours

One oft-reported source of discord around wind farms over the years has been that lease payments only accrue to host landholders, and that immediate neighbours, who may also live in close proximity to wind turbines, are not accommodated. In recent years, agreements have been increasingly offered to neighbouring landholders to address this perceived inequity.

As with other BSMs, neighbour agreement structures differ from project to project; and while this diversity can reflect the diversity of regional communities, the methods used to determine a fair and equitable agreement is important. The agreements are typically negotiated on the basis of proximity to a wind farm and/or in relation to impacts associated with a wind farm. Agreements can take the form of direct annual or one-off payments to landowners and can include in-kind contributions to a landowner, such as tree planting to screen the view of wind turbines or include other mechanisms such as neighbourhood investment or a gift of equity. One example of a neighbour agreement model is the Proximity Rent Model. The Proximity Rent Model was developed with the intention to “assist projects to achieve a social licence to operate.”²⁶ This model proposes a payment system based on land owned in proximity to wind turbines, where landowners are paid per hectare within specific areas, rather than based on the number of wind turbines on their land.²⁷ Other models currently being implemented are based on amenity considerations such as noise and visual assessments, while others still consider residences within distance zones from a wind farm.

The Palmer Wind Farm in South Australia was one of the first projects to explore neighbour agreements, announcing its intention to establish agreements with wind farm neighbours in late 2013. This project sought to enter into agreements with neighbours with property within one kilometre or a residence within two kilometres of a wind turbine, with a minimum payment of \$2,000 per annum.²⁸

In NSW, the State Government’s 2016 Wind Farm Guidelines encouraged consideration of neighbour (or negotiated) agreements as a form of benefit sharing.²⁹ One proponent active in NSW, Goldwind Australia, has taken up this recommendation at its Coppabella Wind Farm.³⁰ Neighbour agreements are being offered that include an annual payment based on distance from the closest wind turbine. Agreements are voluntary, do not have a time limit for signing and do not include confidentiality clauses.

The NSW Guidelines are likely to see neighbour agreements become a more common feature of development in NSW; and if they prove to be successful, possibly around the country as well.

“ NEIGHBOUR AGREEMENTS ARE NEGOTIATED AGREEMENTS BETWEEN A WIND FARM AND A LANDOWNER IN THE VICINITY OF THE PROJECT THAT ARE INTENDED TO SHARE THE FINANCIAL BENEFITS TO LOCAL LANDOWNERS BEYOND WIND TURBINE HOSTS.



DOING BUSINESS

**“ WIND FARM CONSTRUCTION
HAS DELIVERED AN
ECONOMIC BOOST OF ALMOST
\$4 BILLION TO AUSTRALIA’S WIND
DISTRICTS, OVER HALF OF THIS
IN THE LAST FIVE YEARS.**

Local Jobs and Investment

Any additional business activity in a regional town is welcome. With the wind farm construction boom going on right now, work vehicles and hi-vis workwear are making their presence felt in main streets from Mareeba in North Queensland, through Glen Innes and Crookwell in New South Wales, Mortlake in Victoria and Port Augusta in South Australia.

In 2012, SKM assessed and quantified the economic benefits generated by wind farms in local economies.³¹ Their work provided indicative multipliers of jobs and local investment creation through construction and operation of a wind farm. While the industry has evolved somewhat since 2012, these multipliers still allow us to understand the flow of benefits into regional economies now, and the impact is significant.

With two gigawatts of new wind farm capacity currently under construction, an estimated 1,950 direct jobs have been created in regional areas, with a further 4,500 indirect jobs created in local businesses that supply to the projects. It is estimated that the construction phase of these projects could deliver \$1.6 billion in economic activity to towns and regions in Australia's wind districts.

Of course, wind farm construction has been a part of rural Australia for thirty years already, with nearly five gigawatts of wind farm capacity built to date. In that time, Australia's

wind districts have seen an economic boost of almost \$4 billion. Over half of this spending has occurred in the last five years as the rate of construction has ramped up significantly.

On an ongoing basis, as wind farms move into their 25-year operational phase, a range of secure, long-term jobs are created in operations and maintenance, keeping skilled employees and their families in rural towns. On completion of the wind farms currently being constructed, around 700 ongoing regional jobs could contribute \$421 million every year across the wind industry. Across the full life span of these wind farms, an estimated \$10.5 billion will be delivered to their host communities.

With wind energy one of the cheapest sources of new power in Australia and with prices still coming down,³² a sustainable wind industry can continue to grow beyond 2020, generating good jobs and contributing to diverse and thriving regional communities.



PHOTO: Turbine base construction, Bodangora Wind Farm. © Infigen Energy.

**“ CURRENT WIND FARM CONSTRUCTION PROJECTS
COULD DELIVER AN ESTIMATED \$1.6 BILLION IN
ECONOMIC ACTIVITY INTO THE REGIONAL ECONOMY.**

Contributions to Councils

Wind farms also contribute to local economies through new income to local and shire councils. While these payments vary considerably between state jurisdictions, Victoria has the most formalised system.

Since 2000, Victoria has required all electricity generators, including wind farms, to pay an annual payment to the relevant council. The Payment in Lieu of Rates (PiLoR) scheme sets a flagfall of \$40,000 and additional \$900 per megawatt of capacity, adjusted for inflation.³³ Actual payments under PiLoR are negotiated between the council and generator based on the suggested schedule.³⁴

These payments can represent a substantial form of income for councils, particularly for those in regions that enjoy a strong wind resource and therefore have more than one wind farm operating within their boundaries. For example, Ararat Rural City Council, in Western Victoria, hosts three wind farms and

earns an estimated \$375,000 every year in PiLoR payments from these projects. Around 16 Victorian rural councils receive PiLoR payments from wind farms (see Appendix B).

In NSW, voluntary planning agreements are commonly entered into between wind farms and Councils, as are infrastructure and repairs contracts that consider remediation for any impacts associated with project construction. Similar contracts are common in other States. While it is possible to estimate payments to councils in Victoria, it is much more difficult to estimate payments made to councils in other states, and as such, while these contributions are significant, they have not been quantified here.

“ACROSS THE 25-YEAR LIFE SPAN OF EXISTING WIND FARMS AND WIND FARMS UNDER CONSTRUCTION, 700 ONGOING WIND FARM JOBS COULD CONTRIBUTE \$421 MILLION EVERY YEAR TO THE REGIONS AND AN ESTIMATED \$10.5 BILLION COULD BE DELIVERED TO HOST COMMUNITIES.



CASE STUDY

PHOTO (ABOVE):
The Nimmitabel Men's Shed team, Christmas 2016.
© Howard Charles.

PHOTO (INSET):
Works on a new cycle path around Lake Williams.
© Howard Charles.

Getting things done locally: Boco Rock Wind Farm

Nimmitabel, home to about 300 people, is the closest township to the Boco Rock Wind Farm in the Monaro region in NSW.

Since the wind farm began operating in 2014, annual community fund grants have been helping realise important local projects. While grants are open to organisations throughout the Monaro region, Nimmitabel residents have used them to improve their own town.

Local stalwart and wind farm host, Howard Charles, is a member of the Lions Club and President of the Men's Shed. He's seen a significant upgrade of the town's amenities through the fund grants.

"This year, we'll be putting in a cycleway around Lake Williams as well as upgrading the facilities at the men's shed. Thanks to the wind farm, we'll be able to kick start both projects."

The Lake Williams park, originally established by the Lions Club, is where Nimmitabel holds its major town events and celebrations. As part of their ongoing work to look after and beautify the park, the Lions Club decided to build a cycleway around the lake to showcase the park for locals and visitors alike. A wind farm CEF grant is being used to buy the concrete and mesh needed to complete the project, and a number of volunteers will be part of the effort to build the path.

According to Howard, nearly a million vehicles drive through Nimmitabel each year.

"The township wants to make Nimmitabel a great spot to stop for a break. Soon, drivers will be able to stretch their legs on the new cycleway around Lake Williams."

Established in 2015, the Men's Shed found a home in the town's heritage train station. While the station is historic, it had been left in a state of disuse is sorely in need of some upgrades to make it safe, functional and inviting. The Men's Shed will use a fund grant for railway sleepers to fix and upgrade the station platform. Laying the sleepers and building a daffodil garden bed will involve local volunteers and hopefully encourage more men to join the group.

As well as these projects, other local organisations, such as the Nimmitabel CWA and the Garden Club have also used grant funding to complete much needed projects in the town.

"The Garden Club did some tree planting in the main street of town, which really lifted the entrances into Nimmitabel from both ends."

"It's a nice spot to stop for a coffee or walk around."





CASE STUDY

Starting the conversation: exploring community investment at Flyers Creek Wind Farm

For the community of the Central Tablelands in NSW, the prospect of community investment in large scale wind projects is not new. The Central NSW Renewable Energy Cooperative (or CENREC) was formed in 2011 to explore the community investment opportunity provided by the Flyers Creek Wind Farm.

PHOTO:
CENREC members inspecting
the Flyers Creek Wind Farm
site. © Rachael Young.

At the time, Infigen Energy were looking for innovative approaches to community engagement. It was a difficult time for renewables—and particularly wind—and the company was looking for better ways to deeply engage with the community around the Flyers Creek Wind Farm. Now approved near Bathurst in the Central Tablelands of NSW, Flyers Creek Wind Farm was still in the development phase five years ago. The Clean Energy Council had just release their Community Engagement Guidelines, the community owned Hepburn Springs Wind Farm had just been realised and Infigen were ready to take on something new. At that time, no one had started a conversation about community investment into a wind farm of this size before. So that's exactly where it started—a conversation.

The initial offer to the community was the opportunity to invest in a single turbine within the now 37-turbine wind farm. This would have given the region an opportunity to buy into the project, while also ensuring the substantial additional investment could be met to build the project. Under this model, members of the cooperative would own the turbine so that local people have a financial stake in the project, and profits stay in the region.

For local Rachael Young, this was an exciting opportunity to be involved in clean local energy generation. She has been part of CENREC since its inception.

"I have seen how having CENREC around has driven some of the conversation about community

investment and renewables. Once we get up and running, that's another model that's available to people to use."

Over the ensuing years, Rachael and the rest of CENREC worked very closely with Infigen as the development phase progressed.

"For a time, every couple of months I would spend a day at Infigen's offices in Sydney, meet their construction and operations team and give them updates on CENREC. Infigen have been really good, they've remained committed to CENREC, despite the lengthy development phase."

According to the CENREC website, the investment would also "offer people the chance to make a meaningful, collective contribution to mitigating climate change, materially more than they can ever achieve with other...energy saving measures."

If the investment has not yet been realised, genuine community engagement certainly has. The project has developed deep relationships with the local community, formed strategic alliances and had a valuable opportunity to explore the ins and outs of community investment in large scale energy generation projects.

As the project progresses towards construction, it presents yet another opportunity for community owned energy in Australia.

You can learn more about CENREC here:
www.cenrec.com.au

APPENDIX A

Community Enhancement Funds

This appendix lists wind farm CEFs included in this report. Annual CEF contribution amounts are listed for the 25-year life of wind farms that are operational or under construction. It does not include programs prior to operations, additional sponsorships, discretionary donations or in-kind support. Proposed CEFs for wind farms in the development pipeline included in the report are also identified.

The wide variety of CEF contributions reflects a range of factors, including project installed capacity, evolving community expectations over time, and needs of specific communities. Many, but not all, CEFs are CPI linked from the point of commencement. Where possible, figures listed are contributions in 2018, which may differ from stipulated contributions at time of CEF inception.

New South Wales

Wind Farm	Wind Farm Commencement	Annual CEF Contribution
Cullerin Range Wind Farm	2009	\$32,000
Capital & Woodlawn Wind Farms	2010–2011	\$42,000
Gunning Wind Farm	2011	\$46,000
Boco Rock Wind Farm	2014	\$167,500
Gullen Range Wind Farm	2014	\$137,931
Taralga Wind Farm	2016	\$109,786 ¹
White Rock Wind Farm	2017	\$175,000
Bodangora Wind Farm	Expected 2018	\$65,500 ²
Crookwell 2 Wind Farm	Expected 2018	\$70,000
Sapphire Wind Farm	Expected 2018	\$187,500
Silverton Wind Farm	Expected 2018	\$15,000

1 Average annual contribution across life of fund.

2 This includes 2% of one wind turbine's revenue, which will vary slightly year on year.

CEFs for wind farms approved or under development: Bango; Biala; Collector; Conroy's Gap; Coppabella; Crookwell 3; Crudine Ridge; Flyers Creek; Glen Innes; Kyoto Energy Park; Liverpool Range; Rye Park; Uungala; White Rock 2.

Victoria

Wind Farm	Wind Farm Commencement	Annual CEF Contribution
Challicum Hills Wind Farm	2003	\$42,000 ¹
Portland Wind Energy Project	2005–2015	\$81,500 ¹
Codrington Wind Farm/Yambuk Wind Farm	2005	\$52,000 ¹
Waubra Wind Farm	2009	\$88,000
Hepburn Wind	2011	\$30,000
Mortons Lane Wind Farm	2012	\$10,000
Oaklands Hill Wind Farm	2012	\$53,000
Macarthur Wind Farm	2013	\$64,000
Bald Hills Wind Farm	2015	\$25,000
Coonooer Bridge Wind Farm	2016	\$25,000

Victoria (continued)

Wind Farm	Wind Farm Commencement	Annual CEF Contribution
Ararat Wind Farm	2017	\$65,000
Kiata Wind Farm	2017	\$20,000
Salt Creek Wind Farm	Expected 2018	\$40,000
Yaloak South Wind Farm	2017	\$28,000
Maroona Wind Farm	2018	\$6,700
Mount Gellibrand Wind Farm	Expected 2018	Yet to be determined

1. Average annual contribution across life of fund.

CEFs for wind farms approved or under development: Alberton; Berrybank; Bulgana; Cherry Tree; Crowlands; Golden Plains; Lal Lal; Moorabool; Murra Wurra; Naroghid; Ryan Corner; Stockyard Hill; Woolsthorpe; Berrimal; Dundonnell; Mortlake South.

South Australia

Wind Farm	Wind Farm Commencement	Annual CEF Contribution
Lake Bonney 1, 2 & 3 Wind Farm	2005–2010	\$24,000
Wattle Point Wind Farm	2005	\$15,000
Hallett Wind Farm projects	2008–2012	\$51,000
Snowtown 1 & 2 Wind Farm	2008–2014	\$50,000
Clements Gap Wind Farm	2009	\$55,000 ¹
Waterloo Wind Farm	2010	\$30,000
Hornsedale 1,2 & 3 Wind Farm	2016	\$120,000
Coober Pedy Renewable Hybrid Project	2017	\$25,000

1. Average annual contribution across life of fund.

CEFs for wind farms approved or under development: Ceres Project; Keyneton Wind Farm; Palmer Wind Farm.

Western Australia

Wind Farm	Wind Farm Commencement	Annual CEF Contribution
Walkaway (Alinta) Wind Farm	2004	\$13,000
Collgar Wind Farm	2011	\$100,000
Denmark Community Wind Farm	2013	Approximately \$10,000 ¹

1. This figure varies year on year, as it represents a percentage of project income.

CEFs for wind farms approved or under development: Fremantle Community Wind Farm; Waddi Wind Farm.

Queensland

Wind Farm	Wind Farm Commencement	Annual CEF Contribution
Mt Emerald Wind Farm	Expected 2018	\$200,000
Coopers Gap Wind Farm	Expected 2018	\$30,000

CEFs for wind farms approved or under development: Forsyth Wind Farm.

APPENDIX B

Methodology

Community Enhancement Fund calculations (p9) are based on publicly available data and data shared with us directly by project proponents.

Wind farm jobs and investment calculations are based on multipliers from SKM's 2012 report for the Clean Energy Council.³⁵ In their report, multipliers have been calculated for an example 50 megawatt wind farm project.

The following multipliers from the SKM report are used in this report. A 50 MW wind farm:

- ≈ could employ between 5 and 6 FTE staff for operations and maintenance
- ≈ could generate up to 48 FTE direct jobs from local/regional expenditure during construction
- ≈ could generate up to 160 FTE jobs from local/regional expenditure during construction (ie. Direct and indirect FTE jobs)
- ≈ could add over \$40 million to the regional economy
- ≈ could result in direct expenditure of up to \$3 million per annum in the operations phase

SKM also provide an indication of landholder payments, stating an example 50 MW wind farm “will also provide up to \$250,000 in payments to farmers” (p27). Host landholder lease agreements are invariably commercial in confidence which makes it impossible to accurately calculate their total value. In addition, lease agreements apply to a range of different types of infrastructure, including wind turbines, substations and power lines, all of which attract different rates of payment. Using SKM's estimate as a starting point, we consulted with a range of wind farm developers and stakeholders to generate a robust, indicative range of payments to host landholders. While the estimates are robust, they should in no way be viewed as an indication of current market leasehold value or be seen as applicable to any specific project.

Contributions to councils through schemes such as Payment in Lieu of Rates (PiLoR) and Voluntary Planning Agreements are not consistent across states and have therefore not been included in total estimates of BSM payments or economic impacts of wind farm operations. The estimated contribution to Ararat City Council is based on standard PiLoR payments as outlined on page 26.

REFERENCES

- 1 Clean Energy Council (2017) Clean Energy Australia Report 2016 pp 54–55.
- 2 Leitch, D. (2018) Australia's wind and solar projects: 2018 starts with a claret run. RenewEconomy. Retrieved from <http://reneweconomy.com.au/australia-wind-and-solar-projects-2018-starts-with-a-claret-run-96222/>. Australia's total wind capacity at the end of 2016 was 4,327 MW. A further 4,000 MW is in the process of being built by the end of the decade. With efficiency improvements and constant total demand, a contribution of over 10% from wind energy is likely.
- 3 Lane, T. and Hicks, J. (2014) Best Practice Community Engagement in Wind Development. Retrieved from <http://cpagency.org.au/wp-content/uploads/2014/03/Attachment-E-Best-practice-community-engagement-in-wind-development-FINAL-V1.0.pdf>, pp 1,3.
- 4 WISE Power (2016) Report on the real case scenarios —testing measures from the WE Engage Toolkit. Retrieved from http://wisepower-project.eu/wp-content/uploads/121016_Final_Deliverable-4-3-Report-on-the-real-life-project-testing.pdf, p 15.
- 5 Ernst and Young Australia (2014) Strategic options for delivering ownership and benefit sharing models for wind farms in NSW. Prepared for NSW Office of Environment and Heritage. Retrieved from <http://www.environment.nsw.gov.au/resources/communities/EY-wind-farm-shared-benefits.pdf>, p 6.
- 6 Ernst and Young Australia (2014) *ibid*, p 3.
- 7 Yass Valley Council (2016) Community Enhancement Fund. Retrieved from <https://www.yassvalley.nsw.gov.au/sites/yassvalley/files/public/event/Draft-Community-Enhancement-Policy.pdf> <http://www.yassvalley.nsw.gov.au/sites/yassvalley/files/public/Policies/DA-POL-20%20Community%20Enhancement%20Fund.pdf> pp 2–3.
- 8 Sapphire Wind Farm (2018) Community Legacy Projects. Retrieved from <http://www.sapphirewindfarm.com.au/community/legacy-projects/>.
- 9 Acciona (2017) Waubra Wind Farm Scholarship. Retrieved from <http://media.acciona.com.au/media/4908427/acciona-energy-waubra-wind-farm-scholarship-2017.pdf>
- 10 Geraldton Newspapers (2014) Putting a whoosh into tourism. The West Australian. Retrieved from <https://thewest.com.au/news/gascoyne/putting-a-whoosh-into-tourism-ng-ya-256408>
- 11 Personal Communication (2017) AGL
- 12 Hepburn Wind (2018) Origins. Retrieved from <https://www.hepburnwind.com.au/hepburn-wind-origins/>
- 13 Denmark Community Wind Farm (2018) History. Retrieved from <http://www.dcw.net.au/history.html>
- 14 The State of Victoria, Department of Environment, Land, Water and Planning (2016) Community renewable energy projects, PiLoR and planning issues discussion paper (available on request), p13
- 15 The State of Victoria, Department of Environment, Land, Water and Planning (2016) *ibid*
- 16 Lane, T. and Hicks, J. (2017) Community Engagement and Benefit Sharing in Renewable Energy Development: A Guide for Applicants to the Victorian Renewable Energy Target Auction. Department of Environment, Land, Water and Planning, Victorian Government, Melbourne p 26.
- 17 Lane, T. and Hicks, J. (2017) *ibid*, p 23
- 18 Impact investing Australia (2018) Coonooer Bridge Wind Farm (Windlab). Retrieved from: <https://impactinvestingaustralia.com/case-studies/coonooer-bridge-wind-farm-windlab/>
- 19 Holmes à Court, S. (2018) NSW's largest windfarm highlights power of community investment. Retrieved from <https://www.theguardian.com/commentisfree/2018/jan/20/nsws-largest-windfarm-highlights-power-of-community-investment>.
- 20 Sapphire Wind Farm (2018) Community Investment Testing. Retrieved from <http://www.sapphirewindfarm.com.au/community/community-investment-testing/>
- 21 CENREC (2018) Community. Retrieved from <http://www.cenrec.com.au/community/>
- 22 Rueter, G. (2012) The global boom in wind energy. Retrieved from <http://p.dw.com/p/15NVm>
- 23 Hicks, J. and Ison, N. (2018) Community energy in Europe. Embark, retrieved <http://www.embark.com.au/display/public/content/Community+energy+in+Europe.jsessionid=754FA574C6AB8E4584EB808528515E56>
- 24 Farrell, J. (2013) Half of Germany's 63,000 megawatts of renewable energy is locally owned. Institute for Local Self Reliance. Retrieved from <https://ilsr.org/germanys-63000-megawatts-renewable-energy-locally-owned/>.
- 25 Hicks, J. and Ison, N. (2018) Community energy in Europe. *Ibid*
- 26 Pyramus Pty Ltd (2014) A practical shared-benefit model for wind farms—The Proximity Rent model. Pyramus Pty Ltd, p3
- 27 Pyramus Pty Ltd (2014) *Ibid* p7
- 28 Fosdike, J. (2013) Wind farm dishes out neighbour payments. Barossa Herald, retrieved from <https://www.barossaheald.com.au/story/1986228/wind-farm-dishes-out-neighbour-payments/>
- 29 NSW Department of Planning and Environment (2016) Wind Energy Guideline for State significant wind energy development. Retrieved from <http://www.planning.nsw.gov.au/~media/Files/DPE/Guidelines/wind-energy-guideline-for-state-significant-wind-energy-development-2016-12.ashx>
- 30 Goldwind Australia (2018) Coppabella Wind Farm Modification Application (Mod 1) SSD 6698: Coppabella Wind Farm Pty Ltd Proponent's Response to Submissions. Retrieved from <https://majorprojects.accelo.com/public/2443c9e7ca969a347e715b1558af5db7/Yass%20Valley%20Wind%20Farm%20MOD%201%20-%20Response%20to%20Submissions.pdf>
- 31 SKM (2012) Wind Farm investment, Employment and Carbon Abatement in Australia. Report prepared for the Clean Energy Council. See Appendix B for further information about methodology.
- 32 Bloomberg (2017) Presentation to the 2017 Clean Energy Summit. Retrieved from <http://www.cleanenergysummit.com.au/dam/clean-energy-summit/agenda/aces-2017-presentations/market-outlook-2017/Kobad-Bhavnagri/Kobad%20Bhavnagri.pdf>
- 33 The State of Victoria, Department of Environment, Land, Water and Planning (2016) *ibid* p26
- 34 The large PiLoR flagfall component places a disproportionate burden on smaller wind farms with only a handful of turbines as it delivers a much higher charge per megawatt than what a larger wind farm pays.
- 35 SKM (2012) *Ibid*, pp 21–29

PHOTO:

Open Day at Macarthur
Wind Farm in 2015.
© Angela Chow.





-  AustralianWindAlliance
-  @AusWindAll
-  www.windalliance.org.au