



# THE LOCAL POWER PLAN.

A blueprint for everyday Australians  
to benefit from the coming boom  
in local, cheap and clean power.

SEPTEMBER 2020





# Helen Haines MP

INDEPENDENT FEDERAL MEMBER FOR INDI

## The Local Power Plan

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## Our vision

We could have a sunbelt of 10,000 locally-owned renewable power stations stretching from Esperance to Carpentaria, bringing new jobs, new opportunities and an infinite supply of cheap, clean, local power to regional Australia.

**This is the Local Power Plan.**





# A plan for us



Photo credit: Coalition for Community Energy

Four words most succinctly and effectively express the message about community energy: Clean, Cheap, Healthy, Local.

#### Augusta Margaret River Community Clean Energy Renewable energy

Renewable energy means cheaper electricity and reduced greenhouse gas emissions. With the addition of battery storage renewable energy can make regional communities more energy resilient at times of blackout.

#### Ballarat Renewable Energy and Zero Emissions Inc.

I see these large-scale, grid connected solar farms as essential in our future energy mix. These sorts of developments create jobs, increase economic activity in local towns, reduce emissions and provide an important secondary income for farmers.

#### Karin Stark, Dubbo

Renewable energy provides jobs and career paths to depressed rural communities. Essential in providing job and training in rural Australia. It's an activity for the benefit of the community and it gives people a feeling of control over their future.

#### Manilla Community Renewable Energy Group

Done responsibly and with an eye to equality, renewable energy is an opportunity for regional Australia to tackle the entwined challenges of ecological sustainability and social justice.

#### Women's Health Goulburn North East, Wangaratta

Renewable energy in its various forms should be the major source of energy for the whole of Australia. Local regionally owned and operated renewable energy projects can keep the money and work in regional areas.

#### Brent Bailey, Glenrowan

Renewable energy projects directly generate employment within the region and state where the projects are located including apprentices and trainees. Sustainability targets can grow to encompass long term employment and export opportunities for our regional communities, with excess supply of renewable energy serving other parts of the state, the nation and even offering export potential.

#### Neoen Solar Developer

Renewable energy plays a critical and essential role in the future of our community, in fact every community in Australia.

#### Lyn Reed, Wodonga

Our hope is to see a decentralised energy network where renewable generation facilities are located in close proximity to the towns they service. The global transition from fossil fuels to renewables is inevitable and presents significant economic potential for regional Australian communities.

#### Murrindindi Shire Council

The establishment of local hubs to deliver specialised support to community energy groups in the region could also provide information and resources for young people to learn about the career opportunities in the renewables sector.

#### North East Tracks Local Learning and Employment Network, Wangaratta

Community energy projects are unique, and they provide proportionately large direct and indirect local benefits and employment opportunities; create new pathways for environmental volunteering and climate action with strong economic and community development outcomes; and, offer a new model of engagement around renewable energy, benefitting the broader renewable energy sector.

#### Coalition for Community Energy

Renewable energy can and should play a role in the future of the Bass Coast community. Much of regional Australia is surrounded by rich renewable energy resources, and as such it holds great potential for local benefits, as well as the more-often discussed wider societal and environmental ones.

#### Max Richter, Wonthaggi

Community energy provides significant opportunities for regional and rural areas. There is a great desire from many people in the community to invest in medium to large scale renewable energy projects.

#### Renewable Albury-Wodonga

Regional Australia is blessed with abundant renewable energy resources. Using these locally can keep money in the local community, can improve resilience and energy security and can help all your local organisations to continue delivering the local benefits that they are renowned for.

#### Citizens Own Renewable Energy Network Australia, Adelaide

All small regional towns should be working towards renewable energy. It not only reduces the cost of energy but will help the environment with clean energy.

#### Tallangatta Show Society Committee of Management

Renewable energy plays a significant role in the future of all communities. Communities all across the country need, and are actively seeking, viable pathways to zero emissions energy.

#### Beyond Zero Emissions

Renewable energy means cheaper electricity and reduced greenhouse gas emissions. With the addition of battery storage renewable energy can make regional communities more energy resilient at times of blackout— that may result from extreme weather, high energy demand or bushfires.

#### Ballarat Renewable Energy and Zero Emissions

Renewable energy will play a key role in the resilience of our community as it responds to converging crises in ecology, economy, equity and energy.

#### Surf Coast Energy Group, Torquay

Renewable energy is a really significant industry that can generate massive benefits for regional Australia via cost savings, jobs, investment, and social benefits.

#### Sustainable Upper Ovens, Bright

We have found that other groups who are further down the community energy path, have been very generous with information and suggestions. We feel part of a movement in our region.

#### 2030 Yea: Community Energy



# A plan for us



Photo credit: Friends of the Earth for Hepburn Wind.

Decentralising electricity generation is also important from a climate adaptation perspective as some communities are concerned about security of electricity supply as bush-fires become more frequent and severe.

#### **Barwon Region Alliance for Community Energy, Geelong**

Localised renewable energy supply has community, social and economic benefits for all, especially if communities lead and have a stake in the solutions that best fit their circumstances.

#### **Totally Renewable Beechworth**

Energy independence is a pathway to build community resilience and increase prosperity by keeping funds in regional communities. Community-owned energy infrastructure keeps money in the local economy and increases reliability.

#### **Granite Belt Sustainability Action Network**

Renewable energy is critical in the reduction of carbon and to save money from lower power bills for homes and businesses as well as retaining money in the community.

#### **Healesville Community Owned Renewable Energy**

It has also become very evident during the bushfires of the 2019/2020 season the role local energy will play in helping communities be more resilient in the face of emergency weather and fire events. Distributed energy resources allow individual properties with batteries to have a secure power supply during emergency events.

#### **Totally Renewable Yackandandah**

Community energy has a vital role to play in further building social licence for renewable energy, and allowing everyone to access the benefits of renewables including those who are, for example, locked out of being able to access rooftop solar.

#### **Solar Citizens**

Community renewable energy enterprises generally have a greater level of commitment to creating jobs in local communities including ongoing roles in management and operations. These contributions can help diversify local employment and income and therefore boost local resilience during economic shocks.

#### **The Australia Institute**

Renewable energy can create economic growth and jobs. Most importantly it can create stimulus to our economy which is much needed.

#### **Frontier Impact Group**

This is a timely initiative to revitalise regional Australia in the context of the intersecting crises the bushfires and COVID pandemic have brought, while also contributing to action on climate change as our energy system transitions to clean energy.

#### **Community Power Agency**

Renewable energy (with storage) offers the potential of being relatively independent of the grid and this is particularly important in the more remote and bushfire prone communities.

#### **WinZero, Wingecarribe**

Renewable energy saves money by reducing operating costs for both businesses and households. This is critical for many regional communities where the cost of living is outstripping workers' wages.

#### **Zero Emissions Noosa**

Community energy is more than just the generation of electricity. Access to cheap, sustainable forms of energy is a basic right, like water, food and housing. Renewable energy's reliability, cost effectiveness and potential to create jobs should be emphasised, particularly in regional Queensland.

#### **Energetic Communities, Brisbane**

Renewable energy provides a pathway to emissions reductions, self-sufficiency, community resilience and energy redundancy for communities in regional Australia.

#### **Geelong Sustainability**

The regions can play a central role in the energy transition. Our physical assets and social capital are the foundations from which we can drive this vision of regional communities becoming the 21st century replacements for coal-fired power stations.

#### **Renewable Energy Mansfield**

We recognise the powerful role that community energy initiatives can play in affecting local change and accelerating a much wider societal shift to renewable energy.

#### **Clean Energy Council**

It is very important for the future of regional Australia's long term economic and social benefit that regional Australia sees the development of renewables as an opportunity to take the power back: to boost their energy resilience and security; to lower costs; and to keep money and jobs in their regions.

#### **Enova, Byron Bay**

By increasing local production of electricity this will help keep more money in the local community, thus increasing a rural community's financial strength and long-term viability.

#### **Junee Community Power Incorporated**

For regional communities in WA to grow and attract more people and new businesses, they need to offer an economic advantage when compared to Perth CBD and the metropolitan area. Community energy, microgrids and innovative technology solutions can help make this happen.

#### **Tersum Energy, Geraldton**

Community energy keeps the money local. If we could generate our own electricity that would keep \$40m in funds in the local economy instead of going to the big retailers, and reduce our exposure to chain of supply issues due to remote generators in the network.

#### **South Coast Health and Sustainability Alliance, Moruya**



# Foreword from Helen Haines MP

The incredible events of 2020 have given Australians a once-in-a-generation moment to decide what we want our future to be.

Especially in the regions, people are hungry for practical ideas about how to seize the momentous opportunities before us and build a generation of shared prosperity.

## Renewable energy is one such opportunity.

Regional Australia has the best renewable energy resources in the world. A boom in investment is already underway. Our challenge is now to ensure that everyday Australians will share in its benefits.

Community energy – where everyday people are empowered to develop, own and benefit from their own energy projects – is a way to ensure the renewable boom happens with and for us, not to us.

This year, I invited experts and communities across Australia to help me co-design a national plan to unlock the potential of community energy. Together, we have produced a practical, realistic blueprint to bring cheap, clean, local power to the regions.

## This is the Local Power Plan.

It involves three schemes delivered by a new entity, the Australian Local Power Agency (ALPA)

1. The **Local Power Scheme** will support communities to develop their own energy projects;
2. The **Underwriting New Community Investment scheme** will underwrite locally-owned mid-scale projects;
3. The **Community Renewable Investment Scheme** will enable local communities to co-invest in new large-scale projects.



Over 10 years, the *Local Power Plan* would create thousands of small-scale renewable power stations and save millions of dollars in power bills. It will ensure that everyday regional Australians get a fair share of the jobs that will be created in renewable energy this decade.

But for this to happen, we need the government to act. Later this year, I will introduce to Parliament the *Australian Local Power Bill 2020*. This Bill will create the ALPA and its three constituent schemes.

I'm inviting every Australian who believes in the future of our regions to support the *Local Power Plan*.

I'd like to thank the individuals and organisations who took the time to make a submission. This Plan belongs to you. I'd also like to thank the communities around Indi and around Australia quietly working to develop community energy projects. Community energy truly is people power.

And I'd like to thank each member of our Expert Panel. Your dedication to your communities, to regional Australia, and to the project of a better, renewable future is an example for us all.

I believe that the next 50 years could be the brightest ever for regional Australia, if we have the grit and the determination to work for it. And I believe the Local Power Plan will help us get there.

## Let's get to work.

Helen Haines MP  
Independent Federal Member for Indi



# Foreword from the Expert Panel

In April 2020, Helen Haines asked us to join her Expert Panel to design an energy policy for regional Australia.

The **Local Power Plan** is the culmination of that process.

The job of the panel was to design and lead a community co-design process that would deliver a national plan for community energy.

We were invited to join the panel because we are involved in community energy groups across Indi and beyond.

We are proud that North East Victoria has enthusiastically embraced community energy and that the electorate of Indi is home to 12 of the 100-odd community energy groups in Australia.

We are everyday Australians who, at various points, decided that we wanted a better future for our communities and that we would step up to help make that happen.

Collectively, we have installed solar panels on social housing, upgraded the energy efficiency of local homes and businesses, developed mini-grids, founded community-owned energy retailers, and worked with commercial developers on large-scale projects. We have much more planned.

We do this because we believe in regional communities coming up with solutions to our own problems. We do this because we believe that regional Australia has an enormous opportunity to benefit from the renewable energy boom. We do this because we believe that the best form of climate action, is just that: action.

We are proud to offer the *Local Power Plan* as a comprehensive blueprint to support every part of regional Australia to access the benefits of our renewable transition as we have done.

Helen Haines is one of us. Before she was the Member for Indi, she was an everyday Australian. She was our colleague, our friend, our neighbour. We are now proud to call her our representative. We congratulate Helen and her team for trusting us to develop this important Plan with them.

We hope that in this Plan, every part of regional Australia will see the potential not just for a better future for regional Australia, but for a better model of political representation. One that listens to people. And one that acts in their interests.

In that spirit, we call on the government to act to make the *Local Power Plan* a reality.

**Pass the Australian Local Power Bill 2020. And fund the Local Power Plan.**

**Andrew Webb** *Renewable Energy Mansfield*

**Ben McGowan** *Indigo Power*

**Bobbi McKibbin** *Renewable Albury Wodonga*

**Cam Klose** *Indigo Power*

**Geoff Lodge** *GV Community Energy*

**Dennis Lambert** *Sustainable Upper Ovens*

**Elaine Furniss** *2030Yea: Community Energy*

**John Lloyd** *Renewable Energy Benalla*

**Juliette Milbank** *Totally Renewable Yackandandah*

**Kate Auty** *Euroa Environment Group*

**Marnie Shaw** *Australian National University*

**Matthew Charles-Jones** *Totally Renewable Yackandandah*

**Matt Grogan** *Indigo Power*

**Michelle Kent** *Sustainable Upper Ovens*

**Shirley Saywell** *Euroa Environment Group*

**Sue Gold** *Totally Renewable Beechworth*



**IN THE 21ST CENTURY,  
WE CAN BUILD A  
NEW GENERATION  
OF PROSPERITY BY  
CATCHING THE SUN'S  
RAYS AND SURFING THE  
PREVAILING WINDS.**

Helen Haines MP



Baroota Solar Farm, South Australia. Photo credit: Meralli Solar.



# Executive summary

## Everyday Australians should share in the benefit of our renewable energy boom

### The *Local Power Plan* laid out in this report flows from three simple facts

- Over the next 30 years, Australia's entire coal fleet is set to retire and be replaced by renewable energy. In the same period, \$1 trillion will be spent in our electricity system.
- The vast bulk of our new renewable energy system will be built in regional Australia, in a sunbelt stretching from Esperance to Gippsland to Cape York.
- Without proper planning, everyday communities in regional Australia will miss out on the benefits of this boom.

This renewable energy transformation is a once-in-a-century opportunity to revitalise regional Australia. We must plan it right to ensure that renewable energy builds the resilience of our communities, lowers electricity costs and creates a new export industry. We should aspire to supply the country and the world with endless, clean electricity made right here in regional Australia.

In the 19<sup>th</sup> century, a gold rush built regional Australia. In the 20<sup>th</sup> century, we rode to wealth on the sheep's back. And in the 21<sup>st</sup> century we can build another generation of prosperity by catching the sun's rays and the surfing the prevailing winds.

### Community energy is a key way to ensure everyday people can benefit from renewables

Community energy is about ensuring that everyday Australians can develop, own or benefit from renewable energy projects. That could mean installing rooftop solar on the local footy club, working together with the council to build a medium-sized solar farm, or partnering with a commercial developer to co-invest in a large-scale wind farm. In each case, communities drive, own and benefit from the boom.

The research shows us that when communities are meaningfully involved in renewable energy projects, it creates more local jobs, creates new sources of income for everyday people, and increases access to cheap, local electricity.

Yet Australia has never had a comprehensive policy framework for community energy. Until now.

### There are five key opportunities to accelerate community energy in Australia

Over eight weeks, we ran a co-design process to develop a national plan to unlock the benefits of community energy. This report synthesises the recommendations from 14 workshops with community energy groups in Indi and nationally, and 100 submissions from every state.

### In the co-design, we identified five key opportunities to accelerate community energy in Australia —

1. Develop a strategic **capital investment program** to provide long-term certainty for community energy projects and leverage private investment;
2. Establish **local power hubs** in communities across regional Australia to provide technical expertise and support development of community energy projects;
3. Establish a centralised agency to enable better peer-to-peer **capacity-building**, develop shared resources and provide technical support across communities;
4. Introduce a **public underwriting scheme** for mid-scale community energy projects to overcome a failure of the market to fully price their technical and social benefits;
5. Enable communities to **co-invest in large-scale renewable** projects by requiring developers to offer co-investment opportunities to locals.



## Executive summary

### The **Local Power Plan** ensures everyday regional Australians benefit from renewable energy.

The Plan is a suite of three innovative schemes that together empower everyday communities in regional Australia to access the full benefits of the coming boom in renewables —

First, the **Local Power Scheme** will establish 50 Local Power Hubs across regional Australia to support communities to develop their own renewable energy projects.

Each Hub will provide technical and project support to community energy groups, and work with them to access a new \$310 million **Local Power Fund** to provide strategic development capital. Over 10 years, the Local Power Scheme will catalyse thousands of small-scale projects across Australia.

Second, the **Underwriting New Community Investment (UNCI)** scheme will provide financial certainty to new mid-scale energy generation and storage projects that are at least 51% community-owned.

The UNCI scheme will unlock billions of dollars of private investment to support communities to build their local energy independence and resilience.

Third, the **Community Renewable Investment Scheme (CRIS)** will implement a new requirement for any new large-scale renewable developments in Australia to enable local communities to purchase 20% of the project value.

The CRIS will enable partnerships between developers and local communities to ensure that people have the option to invest in projects happening in their area.

The three schemes of the *Local Power Plan* will be delivered by a new **Australian Local Power Agency (ALPA)** established as an independent statutory body.

To make the *Local Power Plan* a reality, we need to do two things

#### **1. Pass the Australian Local Power Bill 2020.**

This Bill will establish ALPA and its three constituent schemes in legislation. This Bill will be introduced to Parliament later in 2020.

#### **2. Secure \$483 million of government funding.**

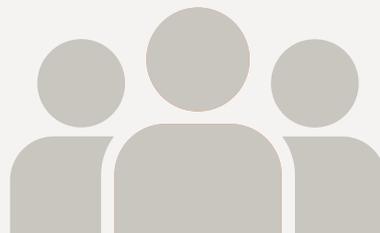
The *Local Power Plan* requires \$483m over 10 years to be invested in our regions. The time is right to make that investment.

**WE ARE CALLING  
ON EVERY  
AUSTRALIAN WHO  
WANTS TO CAPTURE  
THE OPPORTUNITIES  
OF RENEWABLE  
ENERGY TO VISIT —**

[localpowerplan.com](http://localpowerplan.com)

**TO JOIN THE CAMPAIGN**

Let us seize the moment, and together make the **#LocalPowerPlan** a reality.





Baroota Solar Farm, South Australia. Photo credit: Meralli Solar.



# Introduction

The coming decades will bring a massive renewable energy boom to regional Australia. Everyday people should share in the benefits of that boom – new jobs, new income, and endless cheap power.

But that will only happen if we put communities at the centre of the transition.



## Coal is retiring, renewables are taking its place

Over the coming decades, regional Australia is set to be transformed by renewable energy. This is not a prediction or a political statement. It is the sober assessment of the Australian Energy Market Operator (AEMO) – the engineers the government employs to plan and operate our electricity grid.

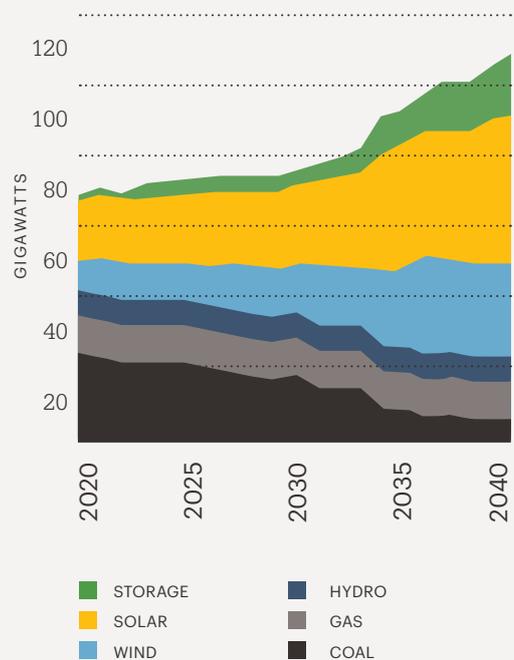
AEMO explains that over the next 20 years, more than 60% of Australia’s coal fleet is set to retire<sup>1</sup>. These power stations currently generate over a third of the electricity demand in Australia’s National Electricity Market (NEM). At the same time, we will experience an unprecedented boom in renewable energy.

In 2019 alone, Australia installed 6.3 gigawatts of renewable energy<sup>2</sup>. That is almost four times the size of the recently-closed Hazelwood Power Station, and represents enough capacity to power 3.1 million homes. Despite the pandemic, 2020 is expected to deliver a similar result.

In June 2020, the NSW government called for expressions of interest to build a \$4.5 billion chain of solar and wind farms that would create 450 local jobs and power 1.3 million homes<sup>3</sup>. Instead, it attracted \$38 billion of private capital – enough to more than replace Australia’s entire coal fleet.

In the words of the Australian Energy Market Commission, “this trend is only going to continue”<sup>4</sup>.

## PROJECTED TRANSFORMATION OF AUSTRALIA’S ELECTRICITY SYSTEM



Source: Integrated Systems Plan 2020, Australian Energy Market Operator, Figure 11.



## Introduction



### A renewable boom is coming to regional Australia

As our coal fleet retires over the next 20 years, AEMO's analysis<sup>5</sup> shows that the "least-cost pathway" to meet Australia's electricity needs would involve building up to —

- 47 gigawatts of new grid-scale renewables like solar and wind farms, this is the equivalent of around 16,000 wind turbines;
- 21 gigawatts of dispatchable energy like batteries, pumped hydro and virtual power plants, this is the equivalent of five new Snowy Hydro Schemes;
- A five-fold increase in distributed solar generation like rooftop panels, which would see around 10 million households add rooftop solar.

The transformation is being driven by ambitious state and territory governments of every colour, each one with a net zero emissions target for 2050:

- South Australia's Liberal government aims to be 100% renewable by 2030;
- Tasmania's Liberal government has a target for 200% renewables by 2040;
- NSW's Liberal government's plan for Renewable Energy Zones will see \$12.7 billion of private capital invested this decade building renewable power triple the size of Snowy Hydro;
- The Commonwealth government's hydrogen strategy envisages up to 700% renewables, with clean power becoming a new export industry<sup>6</sup>.

Building this new network will add billions of dollars of investment in regional Australia. Analyses from AEMO and state governments have identified the best locations in the country to develop new renewables - **Renewable Energy Zones (REZs)**. These REZs stretch right across regional Australia.



### We need to properly plan this transition to ensure that regional Australia truly benefits

Australia's experience with renewable energy so far underscores that new development does not inevitably benefit the local community. The Victorian government's guide to community engagement for renewable energy developers notes that some past developments have failed to address local community concerns<sup>7</sup>.

Recent Australian research has shown that meaningful engagement and local benefits are critical to the success of individual renewable energy projects —

**"The real problem with getting acceptance of renewables lies in ownership and participation. If local communities miss out on economic benefits from corporate-owned renewables, their willingness to accept infrastructure, such as an ever-greater density of wind farms, declines<sup>8</sup>."**

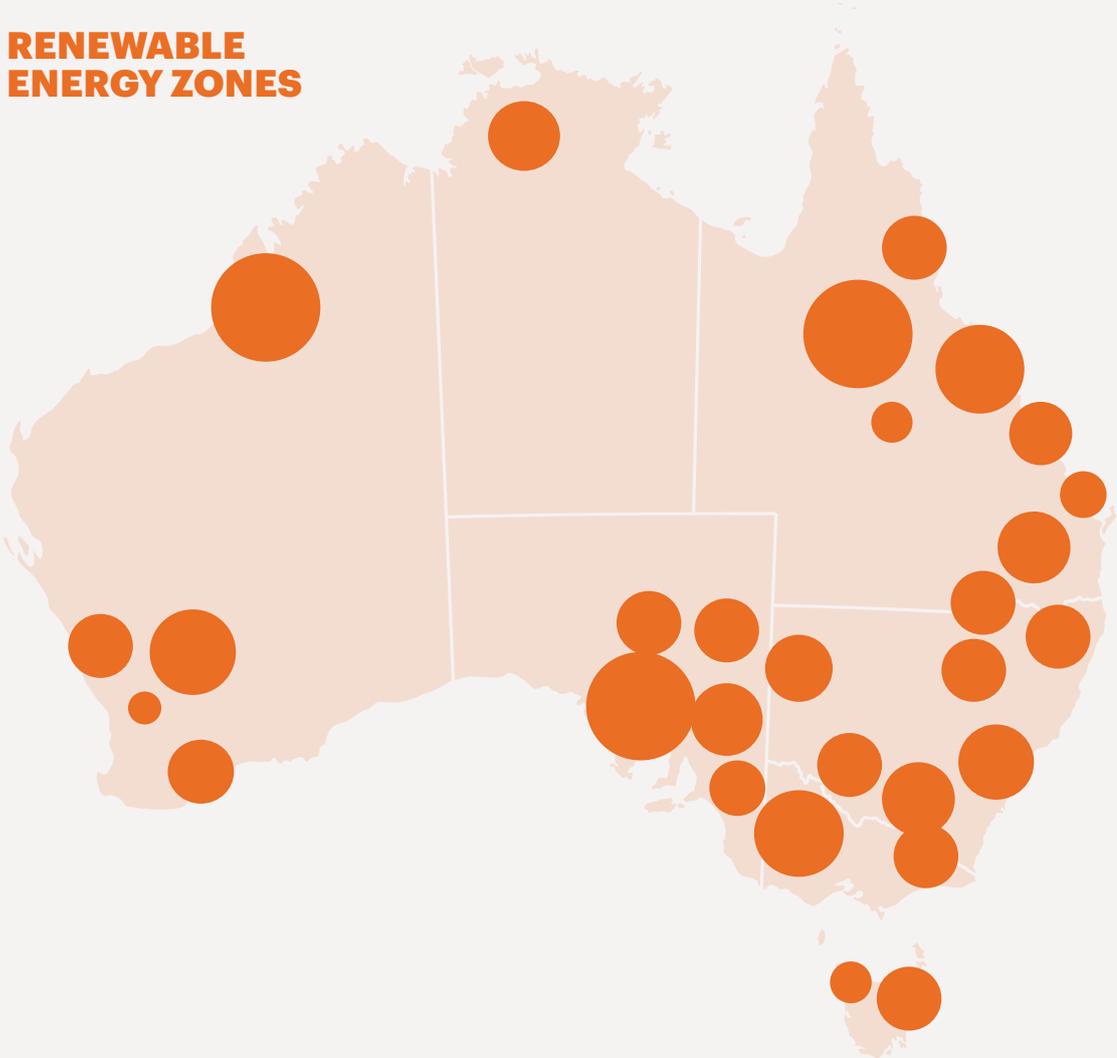
The renewable industry, in general, is highly attentive to ensuring meaningful engagement with and benefits for local communities. In its official "benefits sharing guide" the Clean Energy Council notes —

**"Hosting a renewable energy development can bring about significant regional economic benefits throughout the lifecycle of the project... However, the opportunities for regional development can only be maximised if they are included in project development and benefit sharing plans<sup>9</sup>."**



## Introduction

### RENEWABLE ENERGY ZONES



Source: Australian Energy Market Operator, Integrated Systems Plan 2020; WA and NT REZ's proposed based on current development plans.

**Research from the Australia Institute indicates that many people in the Renewable Energy Zones of NSW have little awareness of the investment boom occurring around them and that**

**“without proper planning and benefit sharing, there is a risk that transmission and generation projects may have unnecessary negative impacts and fail to maximise the benefits for local communities<sup>10</sup>”.**

In short, Australia’s transition to renewable energy – which is already underway – could either set up regional Australia for a generation of shared prosperity, or end up as yet another missed opportunity. Having profits flow offshore whilst regional communities miss out – that’s not a future we should embrace. The renewable transition is upon us, we now must ensure it happens *with* and *for* local communities, not to us.

Community energy, where local communities develop, own and benefit from renewable energy projects, is therefore critical to the future of regional Australia. And it is at the heart of the *Local Power Plan*.



Photo credit: Friends of the Earth for Hepburn Wind.





# 01. Community energy in Australia

Community energy is where everyday people own, develop or benefit from renewable energy projects.

When communities are involved in renewable projects, they deliver real benefits locally.

Community energy offers a model for ensuring that everyday people can access the full benefits of the renewable energy boom that is already underway in regional Australia.

While there is no universal definition of community energy, in the *Local Power Plan*, we define it simply as —

**Where a community develops, owns or benefits from a renewable energy project.**

Right now, all across Australia, there are more than 100 community energy groups – organisations made up of everyday people who develop community energy projects. These might be —

- A group of volunteers who raise money to install a solar panel on the local school;
- A social enterprise that provides low-interest loans to low-income households to upgrade their energy efficiency;
- A local Landcare or Rotary Club running small projects like a solar bulk-buy or installing a small battery in their town;
- A not-for-profit that raises money through donations to finance a business case for a mid-scale solar farm near town.

Different communities will develop community energy projects in different ways. But in essence, community energy is about building renewables, and making sure everyday people benefit, either through part ownership, or accessing cheap, clean electricity.

**Everyday Australians have already shown us community energy works.**

**These many existing models can serve as templates for other groups to develop their own projects —**

## COMMUNITY INVESTMENT MODEL

Where a cooperative or company will raise capital from community members who become investors in a project who then receive dividends.

## CASE STUDY



In 2011, the town of Denmark, WA, raised funds locally to develop a small wind farm. The Denmark Community Wind Farm is co-owned by the local community energy group and individuals in town, who receive returns on their investment and access to locally-generated power. Hepburn Wind in Daylesford, Victoria pioneered this model in Australia.

## CO-INVESTMENT MODEL

Where a community group becomes co-investor with a commercial energy developer to deliver an energy project with community involvement

## CASE STUDY



The Sapphire Wind Farm in New England NSW, which powers 115,000 homes, generated 150 jobs, was built with a \$7.5 million co-investment raised from local people who are now receiving dividends alongside the commercial developer



## 01. Community energy in Australia

### TOTALLY RENEWABLE TOWNS

Where people identify pathways to transition a town to 100% renewable energy, usually involving several local energy generation and efficiency projects.

#### CASE STUDY



Zero Emissions Noosa in Queensland aims to transition the entire town to 100% renewable energy by 2026 through a range of energy efficiency, solar and transport projects.

### COMMUNITY-COUNCIL PARTNERSHIP

Where a local council becomes co-investor with a commercial energy developer to deliver an energy project with community involvement.

#### CASE STUDY



The proposed 21MW GVCE Mooroopna Solar Farm near Shepparton in Victoria that will power over 10,000 homes is being built as a partnership between Greater Shepparton City Council, local social enterprise GV Community Energy Pty Ltd, and Akuo Energy, an international solar developer.

### PHILANTHROPIC MODEL

Where a community energy group or individuals donate to install a renewable energy unit (like solar panels) at a host site (like the roof of a local school) with the financial benefit flowing to the host entity.

#### CASE STUDY



In 2019, Renewable Albury-Wodonga (RAW) raised money to install solar panels on the roofs of 10 social housing units to help the residents save money on their power bills.

### Community energy is a model for delivering the benefits of renewables to local people

Compared to purely commercial or developer-driven models, community energy delivers immense benefits both to local communities and developers<sup>11</sup>. For instance, research shows that when local communities are involved in renewable projects it results in more local jobs and procurement<sup>12</sup>. Similarly, when local people see the direct benefits of renewable projects, they are more likely to support them leading to faster approvals<sup>13</sup>.

Community energy could deliver an immense economic boost to regional Australia ensuring that renewables projects employ locals, and deliver lasting financial returns to locals. Empowering communities to develop their own energy projects would unlock innovative new models like micro-grids and community batteries. In **Appendix 1**, we summarise the full benefits of community energy captured through our co-design process.



## 01. Community energy in Australia

### ECONOMIC BENEFITS



#### Regional exports

Every year, Australians spend \$12.8 billion on household electricity bills. Most of that goes to power companies, many overseas-based. By securing local ownership of energy assets, electricity becomes a regional export industry, meaning we can keep that money in the regional economy<sup>15</sup>.



#### Local jobs

When renewable energy projects are community-driven or owned, they employ more locals. One recent report projected renewables could employ an additional 44,000 people within five years. Community energy ensures that this investment will translate into local jobs to underpin a new generation of prosperity<sup>17</sup>.



#### Cheap power

Renewable power is the cheapest power. By generating electricity ourselves, regional communities can access this low-cost power. Yackandandah Health Service is saving \$1 million over 25 years through its rooftop solar. The CSIRO argues renewables could save every Australian household \$414 a year<sup>14</sup>.



#### Skills and training

A wave of renewables development means massive opportunities for apprentices, trainees and skilled employment. Moreover, empowering the local community to own and develop projects enables stronger connections to local training providers and lasting investment in local workforce capability.



#### Farm income

Renewable energy represents a huge income diversification for landowners. In the wind industry alone, currently operating wind farms will pay an estimated \$27 million a year to farmers through lease payments. Grazing and cropping can co-exist with renewables, ensuring minimal loss of farmland<sup>18</sup>.



#### Income for councils

Community energy projects create new income streams for local councils through rates or other schemes. For instance, Ararat Rural City Council receives around \$375,000 annually from three wind farms. This means lower rates for everyone<sup>16</sup>.



#### Community development

Many community energy projects allocate a portion of revenues to finance local projects like facility upgrades and events. There are 51 such funds in the wind industry alone across Australia, which have delivered \$9.1 million into local communities<sup>19</sup>.



## 01. Community energy in Australia

### SOCIAL AND COMMUNITY BENEFITS



#### Local empowerment

Empowering communities to make decisions about their own development not only gives people control over their energy future, but builds social cohesion around shared goals. For many regional communities facing drought, bushfires and economic challenges, these projects are critical to building community spirit.



#### Disaster resilience

Generating and storing power locally can ensure electricity supply in disasters like bushfires and storms. In the 2019-20 fires, towns like Corryong and Mallacoota were cut off from the grid for days. Local solar and storage infrastructure would build resilience for future disasters.



#### Energy reliability

Renewable energy, planned properly with storage and interconnectors, builds reliability for the grid. One major study found that hundreds of mid-scale renewable power stations are more reliable than centralised fossil fuel generators because there is more redundancy in the system<sup>20</sup>.



#### Climate action

Many regional areas turn to community energy as a tangible way to reduce their emissions. Some towns have set the goal of being 100% renewable. For instance, the 15 projects delivered through the Victorian community power Hub program avoid 1839 tonnes of carbon dioxide each year<sup>21</sup>.



#### Social licence

Social licence is where a project has ongoing approval and broad acceptance within the local community and among other stakeholders. Projects that are driven by or deliver benefits to the local community enjoy greater social licence and faster approvals<sup>22</sup>.



#### Energy access

Often low-income households are unable to access the benefits of renewable energy due to upfront investment costs. Community energy often targets these households. For instance, Renewable Albury Wodonga installed rooftop solar on social housing in Wodonga, helping residents to lower their power bills.



#### Indigenous empowerment

Many Indigenous communities are developing energy projects to foster a sense of local empowerment and create economic opportunities on Country. For instance, Original Power in the NT is working on a solar-powered micro-grid in Borroloola to build opportunities for the Garrwa traditional owners.



## 02. Opportunities to accelerate

Community energy holds vast potential for regional Australia. But we have never had a plan to unlock that potential. Our co-design process identified **five key opportunities** to accelerate community energy in Australia.

If we are to unlock the benefits of renewables for everyone, we need a policy framework that captures these five opportunities.



Photo credit: Euroa Energy.

While community energy has existed in some form for many years in Australia, it has never benefited from a supportive policy framework at the national level.

Australia's energy system was designed for large, centralised power stations and in recent decades has been dominated by both government and corporate entities.

It is unsurprising that a system designed without communities in mind has left communities out. As researchers from the **Energy Transition Hub** note, the design of Australia's energy system has:

“...traditionally centred around utility-scale generation and poles-and-wires solutions over locally oriented solutions, thus creating challenges for communities wanting to invest in their own energy resources and for their own local energy needs<sup>23</sup>”.

In our co-design process, we sought to identify the most promising opportunities to accelerate community energy. We wanted to design a policy framework that responds to the actual problems on the ground. This was an experiment in bottom-up policy design.

Inevitably, some submissions identified fundamental flaws in Australia's energy policy that are holding back the overall transition to renewable energy in Australia such as grid congestion, energy policy uncertainty, and the need for system security.

While we recognise these broader policy goals, the *Local Power Plan* focusses specifically on the opportunities to support communities to develop, own and benefit from renewable energy projects.



## 02. Opportunities to accelerate

This section outlines the **five key opportunities** to expand community energy in Australia that we identified in our co-design process.

**Appendix 2** contains a deep-dive into each opportunity including the full outcomes of the co-design process.

### Opportunity 1

#### Attract strategic capital investment

Enabling better access for community groups to start-up and project capital could unlock a new wave of projects that are currently being held back due to lack of funds. Running a community group inevitably involves administration and communications costs and developing energy projects is expensive – researching technology, working with local stakeholders, preparing business cases.

Most community energy groups rely on government grant schemes to start up and develop projects. But the co-design process clearly indicated that these existing schemes are not fit for purpose. They are piecemeal, have insufficient resources to meet the demand, and often run on ad hoc timeframes that limit the ability to plan projects over the long-term.

Because most government schemes are competitive, community groups are incentivised not to share information and resources – forcing many to reinvent the wheel. Moreover, many schemes open applications at short notice, meaning groups either scramble to get in an application at a time that doesn't suit their project, or opt out entirely.

There is a clear role for government in developing a strategic funding scheme that enables communities to access capital at the right time. **Totally Renewable Beechworth** called for long-term funding certainty, with tiers of support calibrated for different groups –

**“If there was a ten-year program, with funds allocated to different stages along the project development cycle, community groups would have the certainty that when they get to a certain stage, there will be funding available<sup>24</sup>”.**

Dareton Solar Farm, NSW. Photo credit: Meralli Solar.



## 02. Opportunities to accelerate

### Opportunity 2

#### Establish local hubs to provide on-the-ground technical expertise

Community energy groups are full of passionate and experienced individuals. But no single group has the full technical expertise needed to deliver a complex energy project - engineering, law, regulation, business finance, community engagement etc. Research from the Clean Energy Council<sup>25</sup> and Beyond Zero Emissions<sup>26</sup> corroborates the finding that a lack of technical expertise is a key barrier to community energy.

In the co-design, almost every community energy group called for greater access to trusted, on-the-ground technical expertise. Overwhelmingly, submissions called for the establishment of local hubs, a model originally developed by the Community Power Agency<sup>27</sup>. These hubs would provide a range of functions: support for new groups to establish themselves, technical advice on renewable technologies, engaging with network companies, developers and councils, accessing finance, etc.

In its formal review of a pilot program run from 2017-19, **Sustainability Victoria** found that local power hubs were —

“...an effective means to catalyse community interest in renewable energy into tangible projects. Overall, the program has achieved all the desired objectives and outcomes, and delivered significant value across social, environmental and economic outcomes<sup>28</sup>”.

That review found that the hub scheme would be enhanced by expanding coverage to entire regions. Moreover, it recommended awarding the hubs greater funding – locked in over the medium-term – enabling the hubs to disseminate small-scale seed funding and creating a physical presence for each hub in the local community.

### Opportunity 3

#### Establish a centralised agency to enable capacity-building

While there are around 100 community energy groups across Australia, there is no formal mechanism for sharing information or resources across them. As a result, many groups are forced to start from scratch, replicate work unnecessarily and spend money on fixed start-up costs that could instead be shared across many groups.

There is a clear opportunity to drive a step-change in the community energy sector by creating centralised support services and enabling better peer-to-peer capacity-building and resource sharing. In its submission, **Tersum Energy**, based in Geraldton, WA argued that —

“A truly national representative community energy body could assist in furthering community energy<sup>29</sup>”.

Tersum argued that such a body should focus on connecting groups with capital, educating groups about energy projects, providing support to prepare business cases, and advocating for supportive policy for community energy.



Yackandandah, Victoria. Photo credit: Grigg Media.



## 02. Opportunities to Accelerate

### Opportunity 4

#### Introduce a public underwriting scheme to de-risk mid-scale projects

Many communities have looked into developing mid-scale (1-10MW) community-owned generation or storage projects but found that they were not financially viable because the benefits of locally generated and consumed electricity are not rewarded by the energy market.

Mid-scale generation and storage projects have several advantages over large-scale renewables. Because mid-scale projects can use the low-voltage distribution network, they allow us to build new renewable power stations without expensive and time-consuming upgrades to the high-voltage transmission network.

Moreover, research shows that mid-scale batteries can improve local system security, enable rooftop solar panels to increase their output and help entire neighbourhoods lower their power bills<sup>30</sup>.

However these many benefits are not compensated in the current market structure. The **Coalition for Community Energy** – the national peak body – argued in their submission for a public underwriting scheme for mid-scale projects that are both community-driven and deliver tangible benefits to the community either through equity ownership or other benefits<sup>31</sup>.

### Opportunity 5:

#### Enable community co-investment in large-scale projects

Many communities see large-scale renewables being developed in their area, but have no way to partner with those developers or to invest in these projects.

**Renewable Albury-Wodonga** argued:

“There is a great desire from many people in the community to invest in medium to large scale renewable energy projects. As it currently stands the vast majority of scale sized renewable projects are foreign owned, with little to no ongoing benefit by way of jobs or local investment being granted to the communities on an ongoing basis<sup>32</sup>.”

Allowing everyday Australians to co-invest in large-scale renewables is one of the clearest ways forward for community energy. Many groups called for a legislative requirement for large-scale developers to offer ownership to local communities. A similar model to this has operated successfully in Denmark since 2008 – where new wind farms must offer 20% equity to residents within 4.5km of a turbine<sup>33</sup>.

Chillamurra Solar Farm, NSW. Photo credit: Meralli Solar.



# COMMUNITY ENERGY DELIVERS REAL BENEFITS TO EVERYDAY PEOPLE



Photo credit: Totally Renewable Yackandandah.

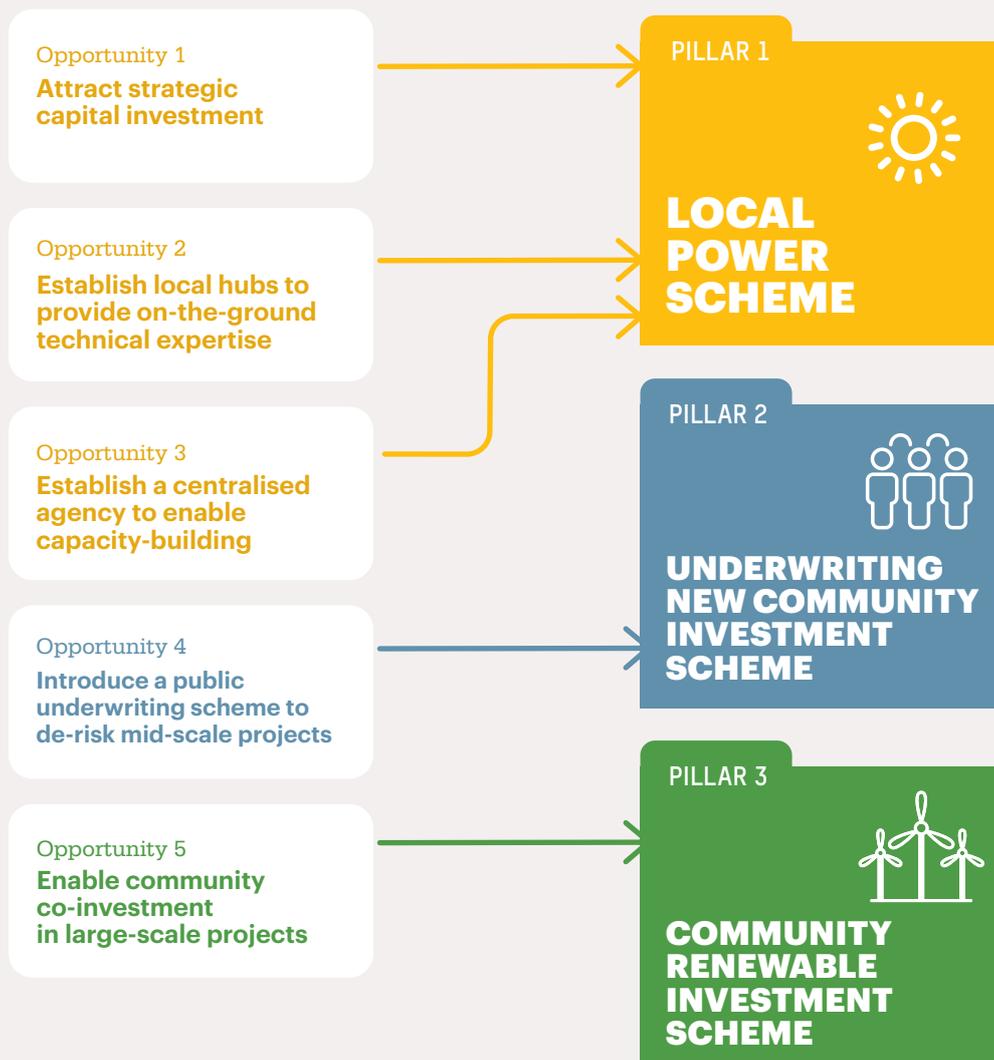


## 03. The Local Power Plan

The **Local Power Plan** is a blueprint to put regional communities back in the driving seat of the renewable energy transition.

Our plan involves three pillars – a mechanism for communities to co-invest in large-scale renewable developments, underwriting community investments in mid-scale projects, and establishing local power hubs across the country to support new community projects – all administered by a new Australian Local Power Agency (ALPA).

We designed the *Local Power Plan* to capture the five key opportunities we identified in the co-design process. For each of the three schemes, we outline how it would work and provide a real-life case study of how the *Local Power Plan* would deliver tangible benefits to regional communities.





## 03. The Local Power Plan

### PILLAR 1

The **Local Power Scheme** is an ambitious proposal to establish 50 Local Power Hubs across the country and a new \$310 million fund to support regional communities to develop their own energy projects.

#### The purpose of each Hub is to

1. Support community energy groups to identify and develop renewable energy projects;
2. Provide technical expertise, project support and resources through ALPA;
3. Assist community energy groups to access the Local Power Fund and attract investment.

The new \$310 million Local Power Fund (“the Fund”) will provide strategic development capital to community energy groups. The Fund will consist of three types of assistance:

- **Seed grants:** funding up to \$10,000 for small-scale projects based on proven models. Each Hub will distribute up to 10 seed grants annually to new or early-stage community groups;
- **Enablement grant:** funding up to \$50,000 for non-capital aspects of new projects. Funding can help with costs of feasibility studies, consultations, technical studies etc. Each Hub will award up to five enablement grants each year to established groups;
- **Development loan:** forgivable loans of up to \$150,000 to support renewable energy projects for communities and eligible organisations. Successful projects will provide returns to the Fund, enabling new projects to proceed. Unsuccessful projects will be able to write off the loan. Each Hub can award up to two development loans each year to groups with a demonstrated record of successful project delivery.

Each Hub will be funded for \$500,000 a year for five years for their operational costs and staffing costs. At that point, the ownership of the Hub will revert to the host community energy group. Each community can decide how they would like to operate, within an ALPA governance structure. See **Appendix 3** for an overview of the proposed Hub locations.

Communities will develop projects that provide a revenue stream to maintain the operation beyond the five-year funding horizon. In this way, the Local Power Scheme provides strategic initial investment to empower the community to take control of its own future. Each Hub will be staffed by two ALPA-trained development officers. ALPA will be required to hire and train trusted locals with demonstrated capacity and interest in community energy.

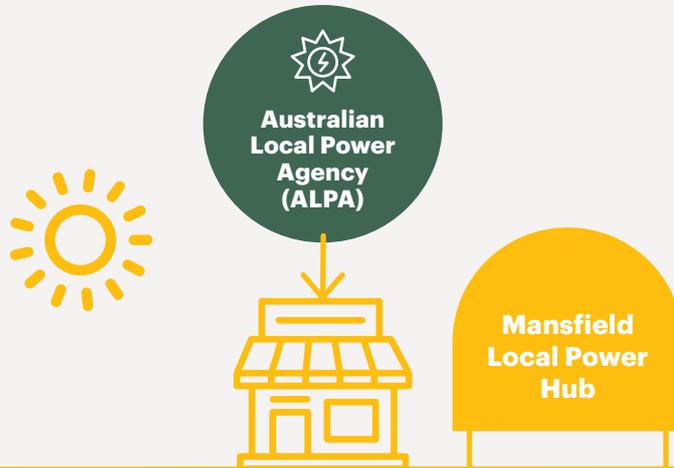
Each ALPA officer will help their regions access funding under the Local Power Scheme. Their job is to identify projects across their region, provide communities with useful resources from ALPA, and connect projects with useful sources of local expertise.

ALPA itself will support the Hubs by creating template websites, power purchase agreements, legal contracts, business cases, communications plans, and other resources. Local Hubs will facilitate the sharing of information and resources within and across their Hubs, each serving multiple community energy groups in a designated region.

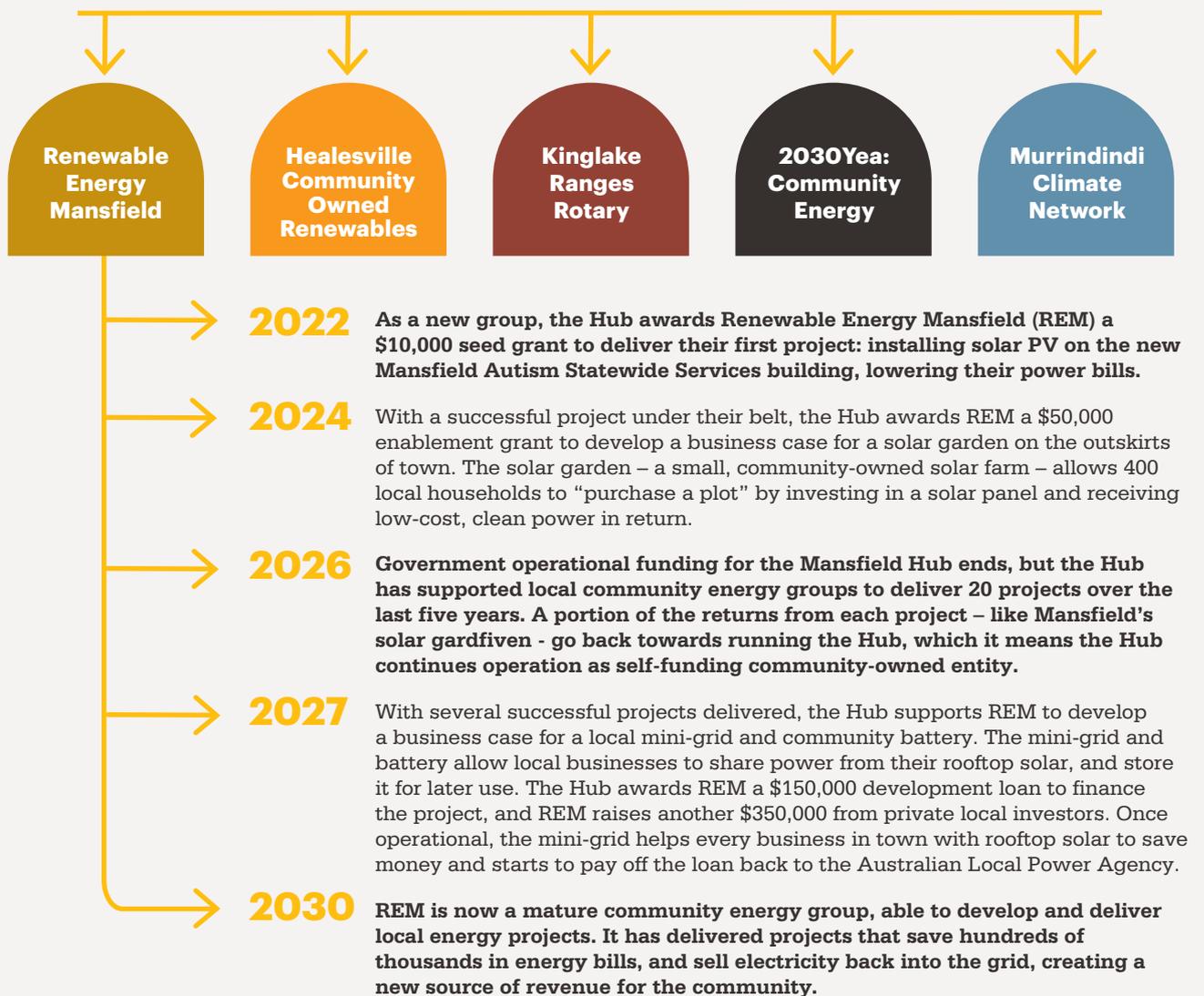
Working with the development officers in your Hub will allow people to:

- Understand models for viable community energy projects specific to their region;
- Use the template contracts, business cases, and engagement materials developed by ALPA;
- Access funding under the Local Power Fund and attract private capital;
- Collaborate and share resources with other groups within your Hub and others.

**LOCAL POWER SCHEME**



Supports local community energy groups in its catchment region to deliver projects.  
**This is the potential timeline for just one community across the 10-year plan:**





## 03. The Local Power Plan

### PILLAR 2

The **Underwriting New Community Investment Scheme** will provide financial certainty to new mid-scale community-owned energy generation and storage projects.

**Through the Underwriting Community Investment Scheme (UNCI), the government will enter into contracts to guarantee a minimum return to proposals that:**

- Deploy energy generation or storage projects between 1MW-10MW;
- Are at least 51% community-owned, through local individuals, organisations or councils;
- Are community-driven, have broad local support, and deliver tangible benefits to the region;
- Demonstrate technical benefits to the grid consistent with the Integrated Systems Plan.

With the 51% community ownership floor, UNCI is designed to attract private capital investment to projects that may otherwise be unviable, while ensuring that local communities themselves retain majority ownership and control.

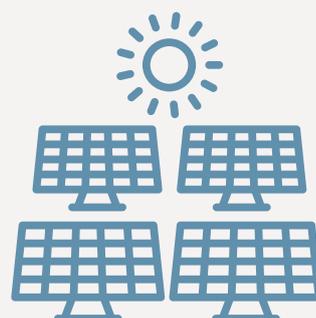
Moreover, requiring projects to demonstrate not only community but also technical benefits to the grid, means that UNCI will deliver value to all electricity consumers, not just those communities with which it enters into underwriting agreements.

The UNCI scheme will operate as a sister-scheme to the government's existing Underwriting New Generation Investment (UNGI) scheme. However, UNCI will have:

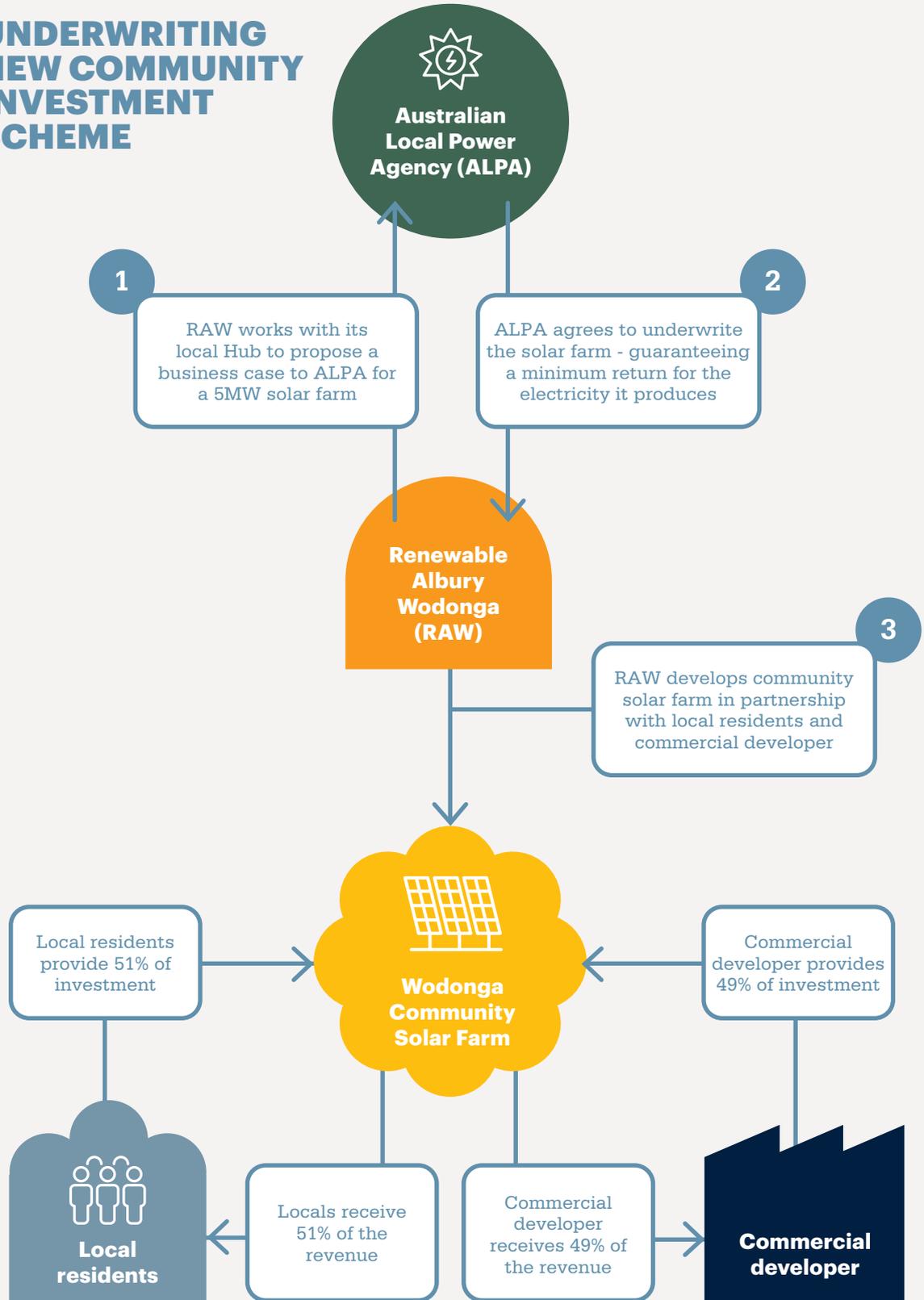
- **Legislative authority:** UNCI will be administered by ALPA, whose enabling legislation will empower it to enter into the appropriate contracts with community-owned entities;
- **Formal guidelines:** ALPA will be responsible for developing formal program guidelines and criteria for assessment;
- **Technical input:** ALPA will be required to engage the expertise of the Australian Energy Market Operator in determining program guidelines;
- **Regular rounds:** Hold open, competitive and regular contracting rounds twice a year for the next five years, providing communities with long-term certainty to develop projects.

Community energy groups interested in developing proposals for mid-scale projects under UNCI will be able to work with their Local Power Hub to scope technologies, develop business cases and prepare bids.

Moreover, given the scheme is designed to "crowd-in" private capital, UNCI is expected to incentivise commercial developers and network companies to engage enthusiastically with community energy groups, whose leadership – and ownership – will be a precondition for accessing UNCI contracts.



## UNDERWRITING NEW COMMUNITY INVESTMENT SCHEME





## 03. The Local Power Plan

### PILLAR 3

Under the **Community Renewable Investment Scheme**, any new large-scale renewable development in Australia will be required to offer 20% of the project ownership to local communities.

**Under the Community Renewable Investment Scheme (CRIS), any new large-scale development will be required to offer a community co-investment funding round before receiving its final planning approval. That funding round should:**

- Be held at any point in the project development process, either early-stage, during feasibility study, or once a project business case has been fully developed;
- Offer ownership to individuals, co-operatives, organisations or local councils;
- Involve a funding floor of 1% whereby if the round fails to generate interest in at least 1% of the total project value the developer will not be required to enter the co-investment model;
- Offer alternative benefits-sharing models for the community; local communities can then decide whether they prefer alternative models like a community enhancement fund to access the benefits of large-scale developments.

Critically, the CRIS involves an obligation to *offer* co-investment, but does not require communities to invest, nor does it require developers to donate equity to communities.

If the community funding round does not yield sufficient interest, the developer is able to proceed with its development pending other approvals and processes.

The objective of the CRIS is not simply to increase opportunities for co-investment. Its broader objective is to ensure that communities are considered at the core of any large-scale renewable development.

Many communities will opt for a different benefits-sharing model, but by creating a requirement to engage in good faith, the CRIS will establish a mechanism to drive broader community engagement in large-scale developments.

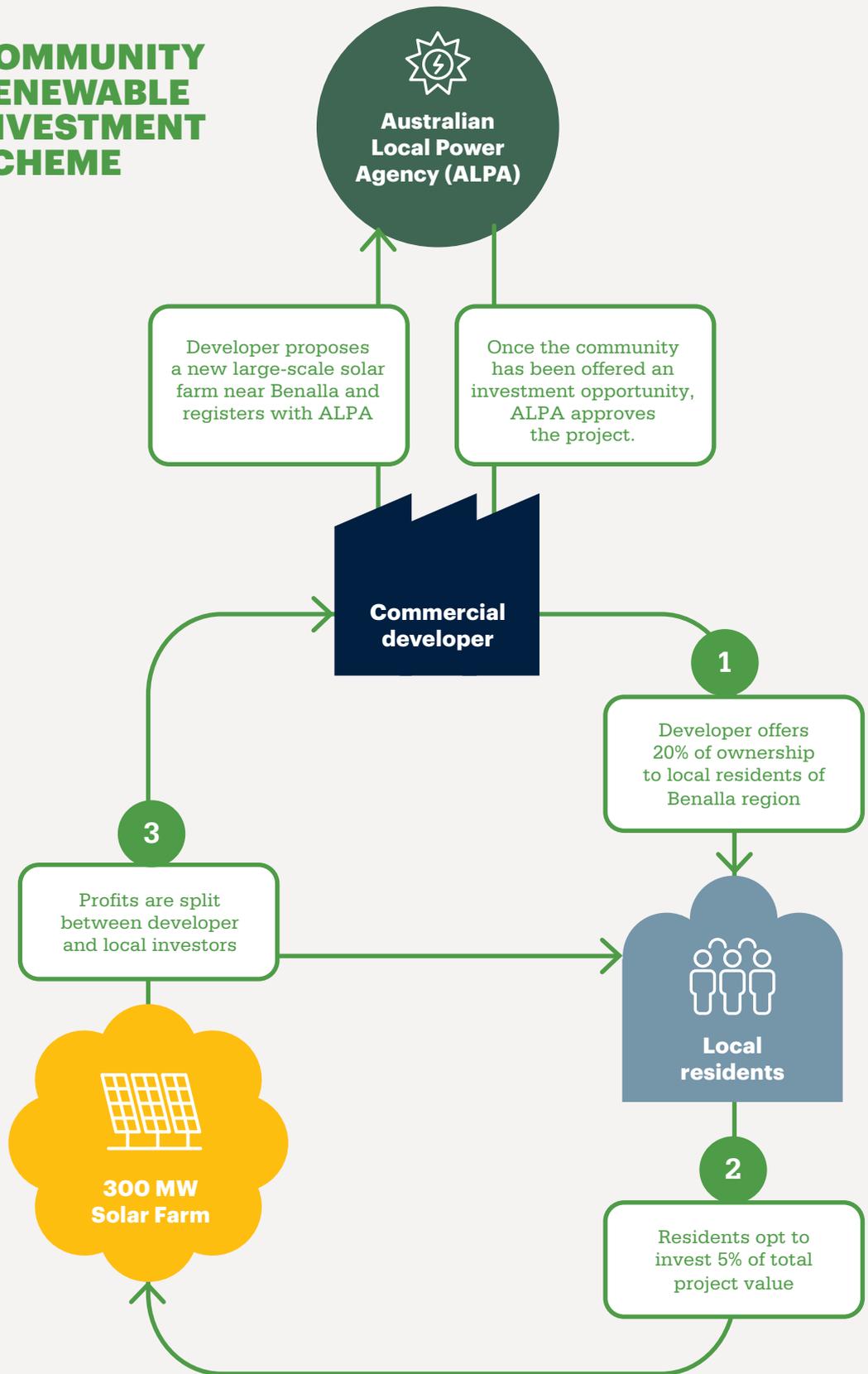
The ALPA will administer the CRIS by:

- Requiring any energy developments above 10MW to register under the CRIS;
- Designating communities within 30 kilometres as “eligible communities”;
- Developing guidelines for community co-investment funding rounds;
- Assessing whether funding rounds held by developers meet the CRIS guidelines;
- Awarding approvals under the CRIS to developers once they have completed the co-investment funding round.

Some community energy groups may decide that partnerships with large-scale developers under the CRIS are preferable to developing their own small-scale projects under the Local Power Scheme or mid-scale projects under the UNCI scheme.

In each case, the Local Power Hub will support those community energy groups to understand their options and develop those projects.

# COMMUNITY RENEWABLE INVESTMENT SCHEME





### 03. The Local Power Plan

The Australian economy is in deep recession. The time is right to make targeted public investments to stimulate economic activity in a way that achieves broader policy goals.

We have designed the Local Power Plan as a response to these economic circumstances. It is precisely because we face such a challenging economic future, that we should make this investment.

Through the Parliamentary Budget Office, we have costed every part of the Plan. And we have modelled its three schemes on what evidence shows will deliver significant return on investment.

The Plan would come into effect on 1st July 2021 and run for 10 years, until the 1st of July 2031. Over that 10-year period, it will require \$483 million of government investment. That includes:

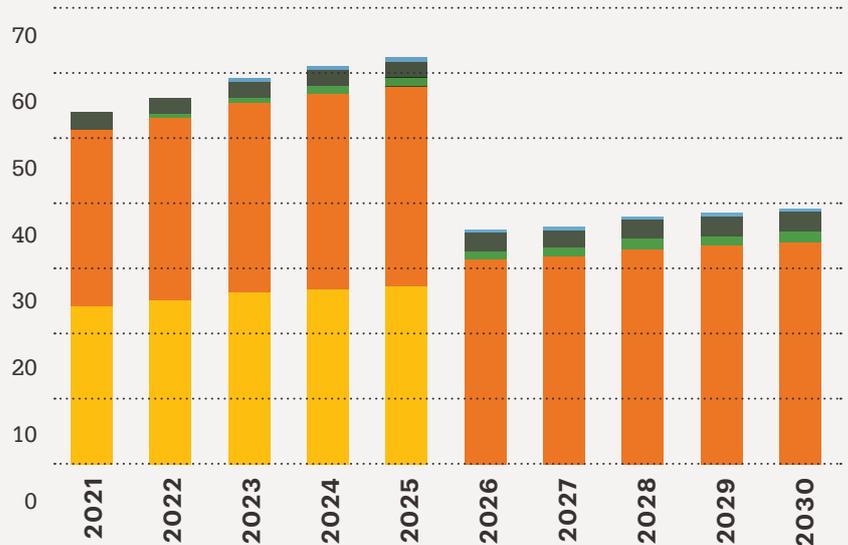
- \$310m for the Local Power Fund to disseminate seed grants, enablement grants, and development loans over the next 10 years;
- \$131m to finance the Local Power Hubs over the next five years. This equates to \$500,000 per Hub per year, at which point the ownership and financing reverts back to the community;
- \$21m to run the Australian Local Power Agency for 10 years;
- The Plan requires payment of \$2.5m in public debt interest over 10 years.

Each of the funding allocations is indexed to the Consumer Price Index, so the real value of grants under the Local Power Fund remains constant. Appendix 4 contains the full details of the costing.

### COST OF LOCAL POWER PLAN

Impact on the Underlying Cash Balance 2021–2030

- LOCAL POWER HUBS
- LOCAL POWER FUND GRANTS
- UNCI SCHEME
- AUSTRALIAN LOCAL POWER AGENCY
- PUBLIC DEBT INTEREST



Source: Parliamentary Budget Office. See Appendix 4.



## 04. Join the campaign



Photo credit: Bendigo Sustainability Group.

The Local Power Plan is a pragmatic and comprehensive blueprint for investment in our regions. But to make it a reality, we need to pass legislation and secure funding.

Community energy only exists because everyday Australians are standing up to build a better future.

And to make the *Local Power Plan* a reality, we will need everyday Australians to stand up and make it happen. If you believe in this vision, join us.

In 10 years' time, we could have fifty Local Power Hubs dotted across the regions, hundreds of communities accessing locally-generated power, earning hundreds of millions of dollars each year for everyday Australians, providing jobs for our kids, and taking practical steps to address climate change.

**That's the vision of the Local Power Plan.**

To make this a reality, we need to do two things

- 1. Pass the Australian Local Power Bill 2020.**
- 2. Secure \$483 million government funding for the Australian Local Power Agency.**

If you want to join the campaign to make it happen, visit —

**[localpowerplan.com](http://localpowerplan.com)**

to write to your Federal MP and contact your local council asking them to support the Local Power Plan.

This vision of everyday regional communities taking control of their own energy future is ambitious. But it is achievable.

Indi is living proof that communities taking charge of their own future can change this country. Let's do it again.

**Together let's make the #LocalPowerPlan happen.**



## A message from the Taungurung



At the Taungurung Land & Waters Council, we aim to build a resilient, empowered and dynamic shared future for our community. We are about protecting country as well as place.

Investing in and being part of community-owned renewable energy is an obvious part of this mission.

We have already started down this track – we have delivered a successful community energy project, installing a 17kW rooftop solar system on a state government building in Broadford.

As the community investor in this project, we own the solar panels. And through an agreement with the local community-owned retailer, Indigo Power, we will be reimbursed over a 10-year period.

We have greater ambitions. Right now, we are working with the state government on a plan to invest in rooftop solar for every school building on Taungurung Country. This project would:

- Build a greater awareness and understanding of Taungurung as the Traditional Owners of the land the students are education on;
- Act as a gateway for stronger relationships between schools and Taungurung;
- Contribute towards the state's 'One Percent Aboriginal Government Procurement Target';
- Create educational opportunities from smart technologies allowing for the visual monitoring and data collection.

For us, community energy is about more than clean power. It's about the partnerships and social dividends we build. Community energy gives us the opportunity to provide people with a greater appreciation and understanding of Taungurung as the Traditional Owners of the land.

Traditional Owners can contribute meaningfully to community energy projects – creating stronger working relationships within the local community.

Recently, we signed a *Recognition and Settlement Agreement* with the state government, acknowledging our aspiration for renewable energy to underpin our economic development.

The *Local Power Plan* would help us realise these aspirations. We share the vision of this *Plan* for renewable energy contributing to the development of communities in regional Australia.

**Matt Burns**  
CEO, Taungurung Land & Waters Council



# Glossary

## **Australian Energy Market Commission (AEMC)**

The rule-maker for the Australian energy market. It makes and amends the National Electricity Rules which govern the electricity market

## **Australian Energy Market Operator (AEMO)**

The government agency that plans and operates the National Electricity Market (NEM) and the Western Australian Wholesale Electricity Market (WEM)

## **Curtailement**

A method for managing the security of the grid, by reducing output of some generators to keep voltage and frequency within safe levels.

## **Distributed energy**

Describes a situation where energy is generated from a large number of small generators rather than a small number of large generators (centralised energy)

## **Distribution network**

The system of poles and wires that connects electricity consumers like houses and businesses to the grid

## **Energy trading**

A system whereby one consumer (like a household) with excess energy can sell it to another consumer nearby

## **Forgivable loan**

A type of loan that can be “forgiven” or written off if certain conditions are met. For instance, if a project that receives a loan does not provide a positive return, the loan can be written off.

## **Gigawatt (GW)**

A unit of power used to describe the size of an electricity generator. For reference, 1 GW is enough to power around 720,000 homes. 1 GW is 1000 Megawatts

## **Large-scale**

Whilst there is no universal definition of large-scale energy, the *Local Power Plan* defines it as larger than 10 MW

## **Megawatt (MW)**

A unit of power, used to describe the size of an electricity generator. For reference, 1 MW is enough to power around 720 homes. 1 GW is 1000 Megawatts

## **Micro-grid**

Is a localised group of small-scale electricity generators (like solar panels) and consumers (like households) that can share electricity, usually connected to the main grid, but can also disconnect and run in “island mode” during blackouts or bushfires

## **Mid-scale**

Whilst there is no universal definition of mid-scale energy, the *Local Power Plan* defines it as between 1-10 MW

## **Photovoltaic (PV)**

The most common type of solar panel that converts sunlight into electricity, this is the type you see on people’s houses

## **Power purchase agreement (PPA)**

A contract whereby one party (like a business) agrees to buy electricity from another (like a solar farm) at a set price

## **Renewable power station**

This report uses this term to describe any renewable energy installation above the household level. For instance, a community battery, a mini-grid, a small solar farm.

## **Small-scale**

Whilst there is no universal definition of small-scale energy, the *Local Power Plan* defines it as less than 1 MW

## **Solar farm**

A large-scale photovoltaic system, usually made up of hundreds or thousands of panels

## **Solar garden**

A community-owned solar farm where individuals can directly purchase renewable energy like a “plot”

## **Transmission network**

The large, high-voltage towers that bring electricity from large generators closer to where it is needed

## **Grid**

The network of poles, wires, fossil fuel and renewable energy generators that power our homes, businesses and industries

## **National Electricity Market (NEM)**

The interconnected grid and power stations that services the East Coast including Adelaide, Tasmania and most of Queensland

## **South West Interconnected System**

The interconnected grid and power stations that services the South West of Western Australia

## **Baseload**

This is a not technical term used by electrical engineers, but generally refers to the minimum demand on the grid at any time

## **Reverse auction**

An auction whereby the roles of buyer and seller are reversed, with sellers competing to provide a product for the lowest price

## **Integrated System Plan (ISP)**

A whole-of-system plan that provides a roadmap for the efficient development of the NEM over the next decades

## **Underwriting New Generation Investment (UNGI)**

A scheme set up by the Coalition to incentivise new investment in energy generation



# References

1. *Integrated Systems Plan*, Australian Energy Market Operator, 2020.
2. Quarterly Carbon Market Report, December 2019, Clean Energy Regulator, 2019.
3. <https://energy.nsw.gov.au/renewables/renewable-energy-zones>.
4. *Renewable Energy Zone Discussion Paper*, Australian Energy Market Commission, October 2019.
5. *Integrated Systems Plan*, Australian Energy Market Operator, 2020.
6. *Australia's National Hydrogen Strategy*, COAG Energy Council, 2019.
7. Lane, T. and J. Hicks (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.5.
8. Morton, T. et al, (2020) *People need to see the benefits from local renewable energy projects, and that means jobs*, *The Conversation*, June 19 2020.
9. A Guide to benefit Sharing for Renewable Energy Projects, Clean Energy Council, 2019.
10. The Australia Institute, *Submission to Community Co-Design Process*, 2020.
11. Lane, T. and J. Hicks (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.
12. Lantz, E. & Tegan, S., *Economic Development Impacts of Community Wind Projects*, National Renewable Energy Laboratory, May 2009.
13. Morton, T. et al, (2020) *People need to see the benefits from local renewable energy projects, and that means jobs*, *The Conversation*, June 19 2020.
14. *Electricity Network Transformation Roadmap*, CSIRO, 2017, p.8
15. Analysis based on ABS Data Category No. 3236.0 – *Household and Family Projections, Australia 2016 - 2040 and Australian Consumer and Competition Commission - Electricity Pricing Inquiry*, August 2019, p. 31.
16. *Building Stronger Communities*, Australian Wind Alliance, 2019, p. 26
17. *Clean Jobs Plan*, Clean Energy Council, 2020.
18. *Building Stronger Communities*, Australian Wind Alliance, 2019, p. 20
19. *Building Stronger Communities*, Australian Wind Alliance, 2019, p. 30
20. Blakers, A., Lu, B., Stocks, M. (2017) 100% Renewable Electricity in Australia, *Energy*, Vol 133, p. 475.
21. Community Power Hubs Pilot Program: Final Evaluation, Jarra Hicks and Taryn Lane, August 2019.
22. Lane, T. and J. Hicks (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.
23. Energy Transition Hub, *Submission to Community Energy Co-Design Process*, 2020.
24. Totally Renewable Beechworth, *Submission to Community Co-Design Process*, 2020.
25. Clean Energy Council, *Submission to Community Co-Design Process*, 2020.
26. Beyond Zero Emissions, *Submission to Community Co-Design Process*, 2020.
27. Community Power Agency, Policy Brief – Expand the NSW Regional Community Energy Program, 2018, [www.cpagency.org.au](http://www.cpagency.org.au).
28. Community Power Hubs Pilot Program: Final Evaluation, Jarra Hicks and Taryn Lane, August 2019.
29. Tersum Energy, *Submission to Community Energy Co-Design Process*, 2020.
30. Shaw, M., & Ransom-Cooper, H. Public Seminar, ANU Battery Storage and Grid Integration Program, May 19 2020 accessible at: <https://www.youtube.com/watch?v=LQHNBVV-Qjl&feature=youtu.be>
31. Coalition for Community Energy, *Submission to Community Energy Co-Design Process*, 2020.
32. Renewable Albury Wodonga, *Submission to Community Co-Design Process*, 2020.
33. Gorrone-Albizu, L., Sperling, K., Djourup, S., (2019), The past, present and uncertain future of community energy in Denmark: Critically reviewing and conceptualising citizen ownership, *Energy Research and Social Science*, Vol 57, p. 6



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