AusNet

A guide to achieving your community's renewable energy ambitions

Starting your community energy journey?

Community energy lets community groups initiate, develop, operate and benefit from shared or individual renewable energy sources. Every project is different and tailored to each community's needs and ambitions.

Community energy projects require time and effort from specialist resources. Knowing how best to navigate this journey is crucial.

We've created this guide to help your community achieve its renewable energy ambitions.

ausnetservices.com.au/communityenergy

CREST

AusNet's Community Resilience Energy Sustainability and Transformation (CREST) program works with communities to help develop their energy resilience by implementing community-scale solutions.

We do this through initiatives that modernise our network whilst benefiting community energy resilience and reliability.

Key benefits

- Maximizing energy self-reliance and supply resilience
- Accelerating transition to renewable energy and a low carbon future
- Providing communities across our network opportunities to participate in a low carbon economy.

Ready to discuss your community energy project with us?
Email: communityenergy@ausnetservices.com.au

Getting started

The journey

1 What are the objectives of your community energy project?

Clearly define and agree on your community energy project's objectives
You might want:

- base-level resilience for relief centres and essential services
- community-wide resilience during extreme weather events
- totally renewable or net zero carbon ambitions
- to expand your local economy into renewables to generate additional community revenue by participating and trading in the energy market.

Make sure you engage broadly within your community to define and agree on your community's primary energy objective up-front.

2 Establish your project by organising your community's finance and governance

Before starting your project, carefully consider your source(s) of funding and legal structure.

To establish the project, you should:

- appoint a dedicated project manager
- agree on how your community energy project will be governed, including the committee, community group members or partners you need to involve, and their responsibilities
- set up your project with key stakeholders
- formalise the project and ensure project management practices are followed.

3 Gather information and commission a feasibility study.

Once your project's objectives, finance and governance are agreed and the project is formalised:

- read the community energy information and FAQs on AusNet's website
- submit a network data request to support the feasibility study
- conduct a feasibility study to determine the best energy solution and business model for your community.

Decision point - Is the energy solution feasible for your community?

Yes continue to step 4
No investigate a different solution or stop the project noting the study found it not feasible.

4 Conduct preliminary works and the relevant grid connection process.

If your project is considered feasible:

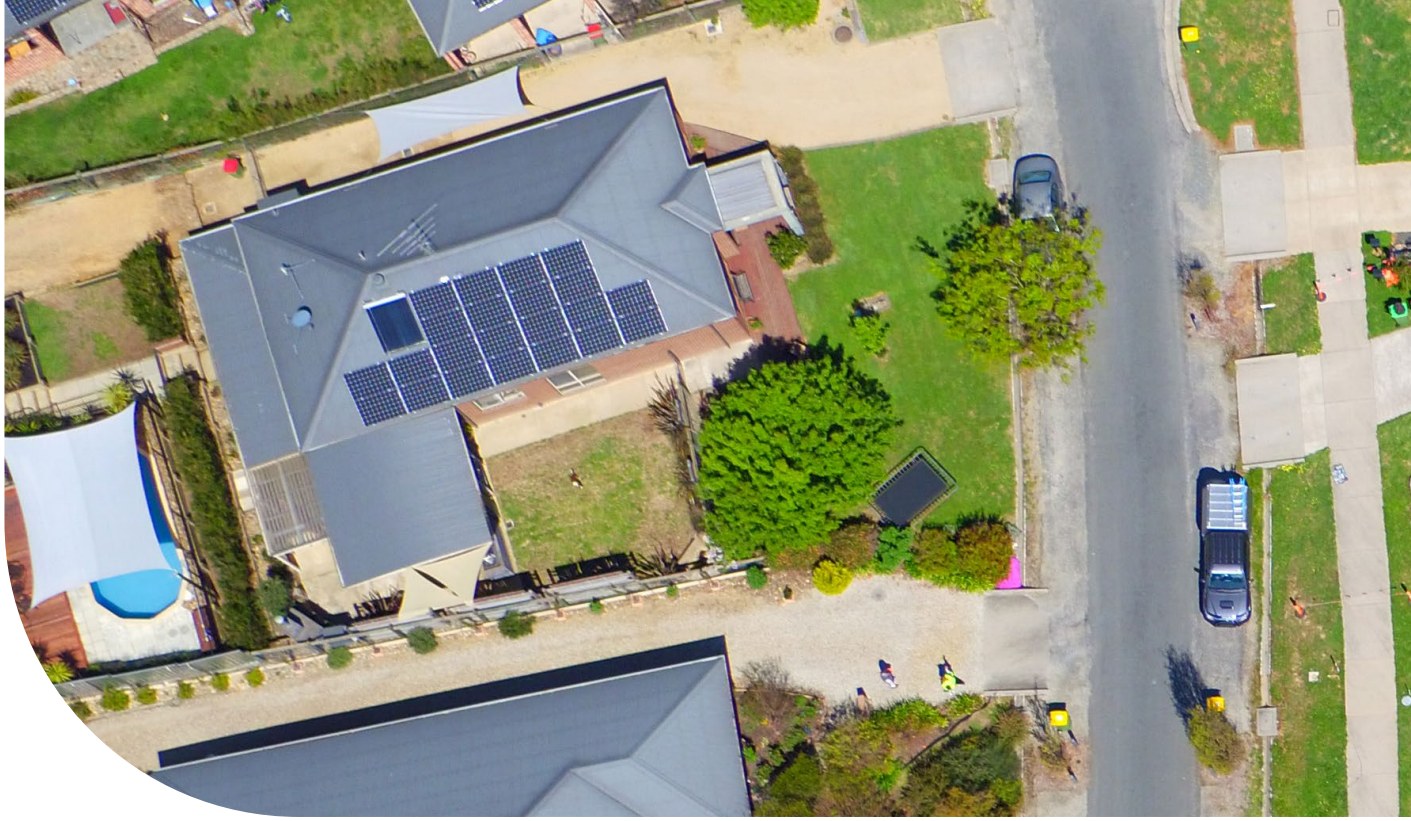
- start the preliminary works stage
- review and follow the relevant AusNet grid connection process based on the size of your energy solution on AusNet's website.

5 Procure, install and commission the energy solution

Once you complete the preliminary works and get your grid connection approval from AusNet, you can start procuring, installing and commissioning your energy solution.

6 Operationalise your energy solution

This is the final step. You are now ready to connect your community energy solution.
Make sure there are ongoing plans in place for its operation and maintenance.



Key stages of your project

Before you start the journey, learn more about these studies and works so you can tailor them to suit your project.

Feasibility study

What is it?

- Detailed assessment to see if the project and energy solution is achievable
- High-level technical designs of the energy solution
- High-level implementation, operational, maintenance and market revenue costs for the energy solution, including ownership and contracting structure
- Initial community engagement to ensure the design meets the objectives

What is the outcome?

To confirm if the community energy solution is technically and commercially achievable.

Preliminary works

What is it?

- Detailed technical designs for the energy solution
- Detailed plan outlining funding and ownership of the energy solution after project completion
- Analysis of the energy solution's values and benefits
- Market sounding of the energy solution, including gauging market interest, solution and solution sizing, availability and market pricing
- Expressions of interest from local installers
- Detailed community engagement, including site assessments and land lease agreements for energy solution location and ownership
- Detailed costings for implementation, operational, maintenance and market revenue, including ownership and contracting structure

What is the outcome?

A project ready for implementation.

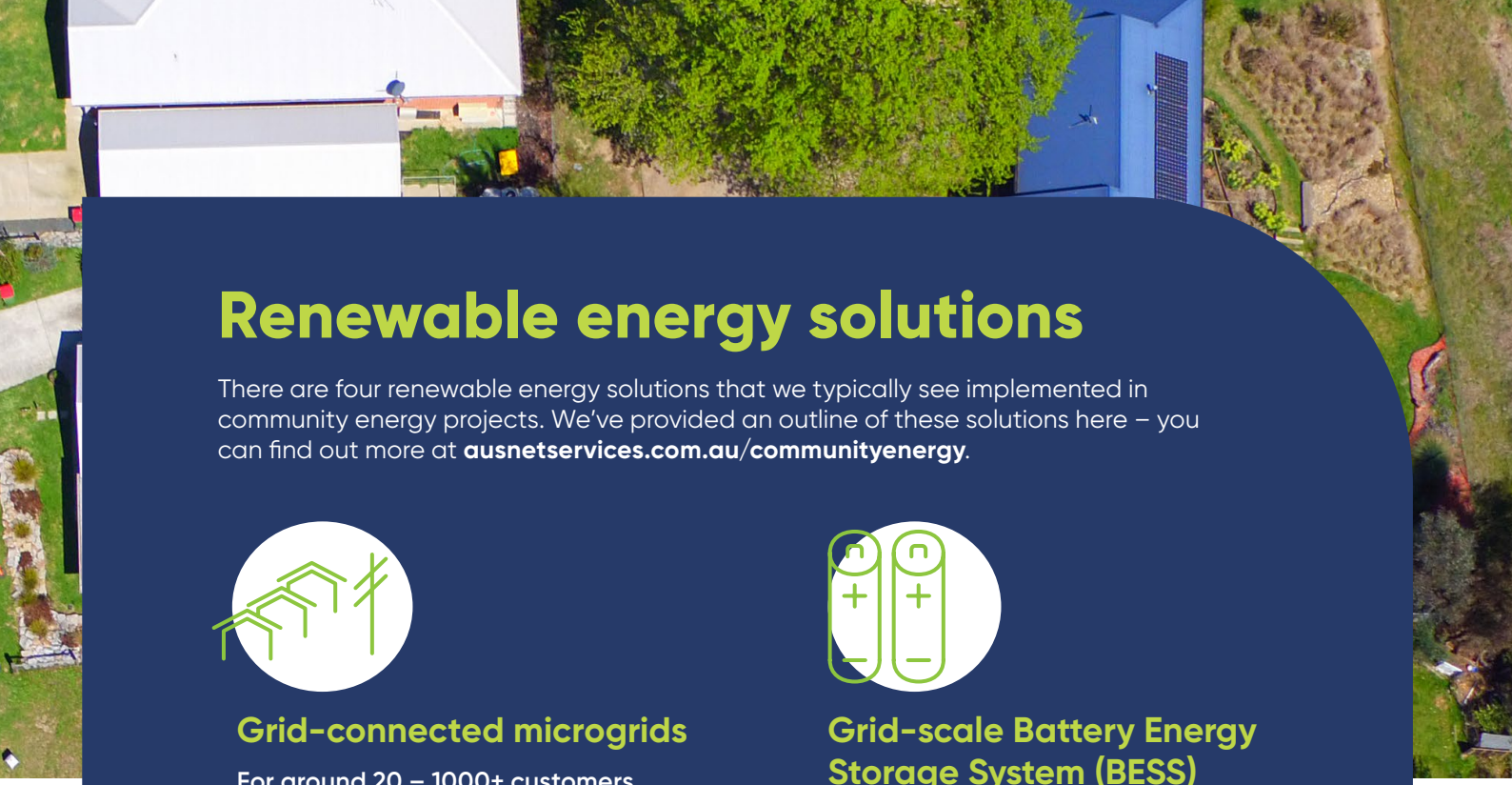
Implementation works

What is it?

- Detailed community and stakeholder engagement
- Purchasing the required components
- Installing and testing major components and integrating them incrementally to build-up the solution
- Commissioning the energy solution within the community, including defining the ongoing operation and maintenance with the solution's owner(s)

What is the outcome?

An installed and commissioned solution with operation and maintenance agreements.



Renewable energy solutions

There are four renewable energy solutions that we typically see implemented in community energy projects. We've provided an outline of these solutions here – you can find out more at **ausnetservices.com.au/communityenergy**.

Grid-connected microgrids

For around 20 – 1000+ customers

A grid-connected microgrid is a self-contained mesh network that facilitates real-time energy generation and consumption among various energy nodes within a defined geographical boundary. An energy node can be anything that generates or consumes energy inside the microgrid's boundary. These nodes are interconnected using the distribution network's poles and wires. An orchestration platform can enable a microgrid to operate dynamically and autonomously in real-time. The orchestration platform has intelligent software and hardware that allows the dynamic management of power for each energy node connected to the microgrid.

Grid-scale Battery Energy Storage System (BESS)

For around 200 – 1000+ customers

The BESS is a large battery that acts as an energy storage system and is connected to and works alongside the distribution network. The BESS can enhance the wider distribution network's reliability and resilience through peak load management, power quality improvements and increased hosting capacity for Distributed Energy Resources (DERs), such as roof top solar.

Off-grid microgrids

For around 20 – 1000+ customers

An off-grid microgrid is very similar in design and operation to a grid-connected microgrid. The primary difference is that the off-grid microgrid only operates in islanded mode. It's completely disconnected from the wider network (islanding the community full-time).

Stand Alone Power Systems (SAPS)

For around 1 – 5 customers

SAPS are an independent electricity generation and supply system. In our network, these systems are deployed in-front-of-the-meter and are classified as utility-grade. Its various components can operate independently of the distribution network, making it more suitable for remote customers.

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www.ausnetservices.com.au/communityenergy

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