



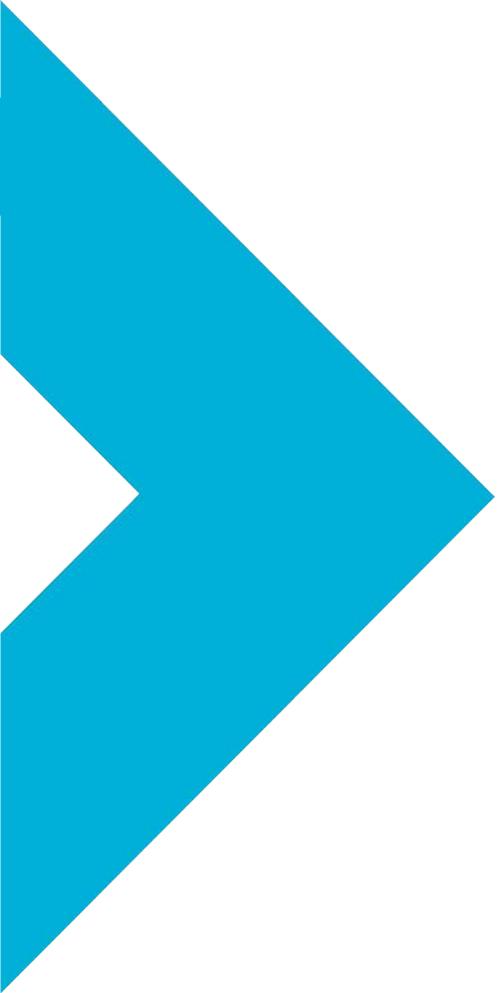
# Regional Australia Microgrid Pilots Program (RAMPP)

June 2021  
Australian Renewable Energy Agency



# Agenda

1. Why are we here?
2. Background to the RAMP Program
3. Program objectives
4. Program design
5. Next steps and feedback



**Why are we here?**

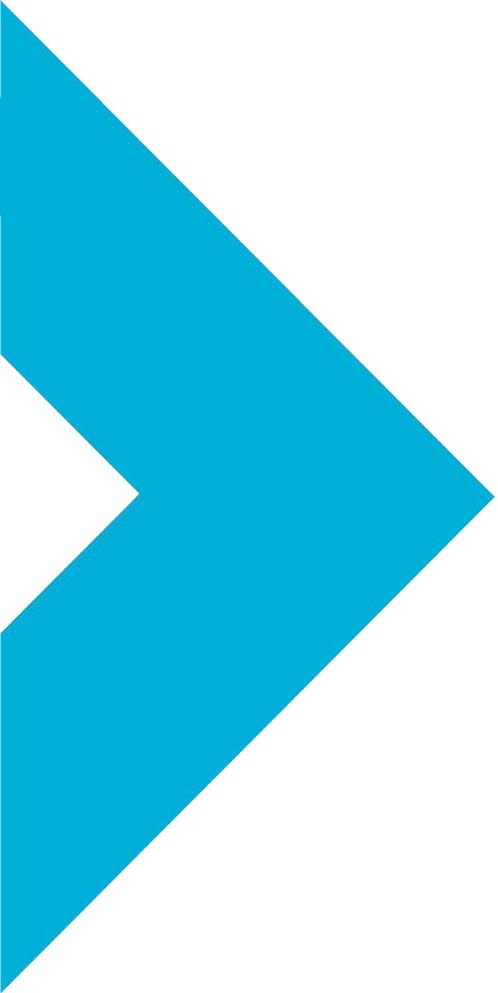
**Seeking feedback on the proposed  
*Regional Australia Microgrid Pilots  
(RAMP) Program***

# Proposed *Regional Australia Microgrid Pilots Program*

The Program will provide **grant funding** support for **pilot demonstrations of microgrids** located in regional and remote areas.

The aim of the Program is to resolve remaining barriers to investment and full deployment of microgrid solutions.

The Program will be administered over six years from 2020-21 to 2025-26. **Up to \$50 million** to be available from **[September 2021]**.



# Background

## ARENA's purpose

ARENA is the Australian Renewable Energy Agency.

The Agency was established by the Australian Government in July 2012.

Our purpose is to improve the competitiveness of renewable energy technologies and increase the supply of renewable energy through innovation that benefits Australian consumers and businesses.

To improve the competitiveness of renewable energy technologies and increase the supply of renewable energy through innovation that benefits Australian consumers and businesses.

INVESTED

**\$1.70B**



PROJECTS

**586**



VALUE

**\$6.92B**



INVESTMENT LEVERAGE

**\$1:\$3.06**



PROJECTS BY TECHNOLOGY

BIOENERGY



**\$131M**

GEOTHERMAL



**\$42M**

GRID INTEGRATION

**\$270M**



HYBRID

**\$110M**



HYDROGEN

**\$60M**



OCEAN

**\$44M**



SOLAR PV

**\$725M**



SOLAR THERMAL

**\$178M**



STORAGE - BATTERIES/PHEV

**\$143M**



RECENT ACTIVITY



**\$71.9M** Future Fuels Fund launched to help businesses and regional communities take advantage of opportunities offered by hydrogen, electric, and bio-fueled vehicles

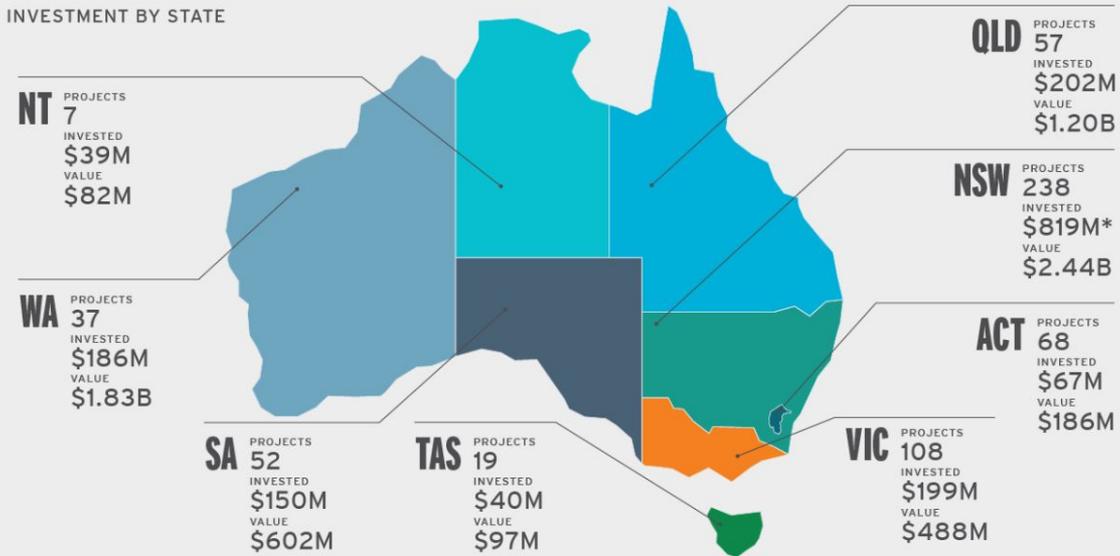
**\$1.98M** to demonstrate aggregated hot water heater load control

**\$1.6M** for a residential electric vehicle charging orchestration trial

**\$1.49M** to commercialise repurposed EV battery and inverter systems

**RELEASED** State of DER Technology Integration Report, which identifies what is required to integrate DER into Australian electricity markets

INVESTMENT BY STATE



\* Includes \$567 million contributed to projects inherited by ARENA in 2012.

INVESTMENT LEVERAGE ALONG THE INNOVATION CHAIN

STUDY	R&D
<b>\$1:\$1.68</b>	<b>\$1:\$1.63</b>
DEMONSTRATION	DEPLOYMENT
<b>\$1:\$1.83</b>	<b>\$1:\$5.73</b>

ENGAGEMENT

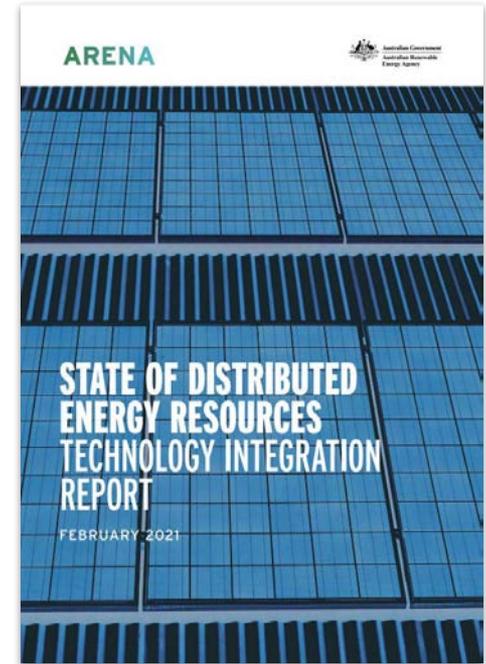
**INDUSTRIAL ENERGY PROGRAM**  
 Consulted more than 80 people on the Industrial Energy Transformation Studies Program, which aims to help large energy users identify ways to lower energy costs and reduce emissions.

**DEIP CEO FORUM**  
 Distributed Energy Integration Program (DEIP) CEOs and senior representatives met to discuss DEIP's progress and next priorities.

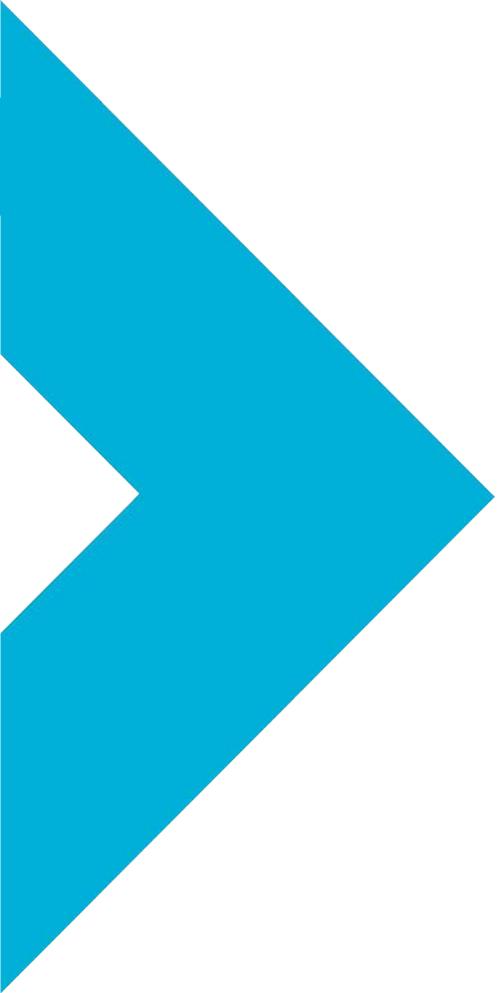
# Microgrid related projects

ARENA takes a **portfolio** approach when assessing the Merit of applications. We have supported:

- Regional Australia's Renewables Initiatives (RAR)
- ARENA's Distributed Energy Resource (DER) portfolio
- Non-ARENA DER and Microgrid projects
- The Commonwealth Government's Regional and Remote Communities Reliability Fund (RRCRF) for feasibility studies



State of DER Technology Integration



# Program objectives

# The Program objectives

The **Program** was included in the October 2020 Commonwealth Budget

- Up to \$50m over 6 years from 2020-21 to 2025-26.

The Program objective is to to **resolve remaining barriers** to the investment in and full deployment of microgrid solutions. Projects must meet several requirements:

- Involve the **deployment of equipment** and technology solutions.
- Be located in **regional and remote** areas.
- Demonstrate improved **resilience and reliability** of microgrids.
- Be capable of resolving **remaining barriers** to final investment and full deployment.
- Have been found to be feasible through a **feasibility study** or equivalent assessment

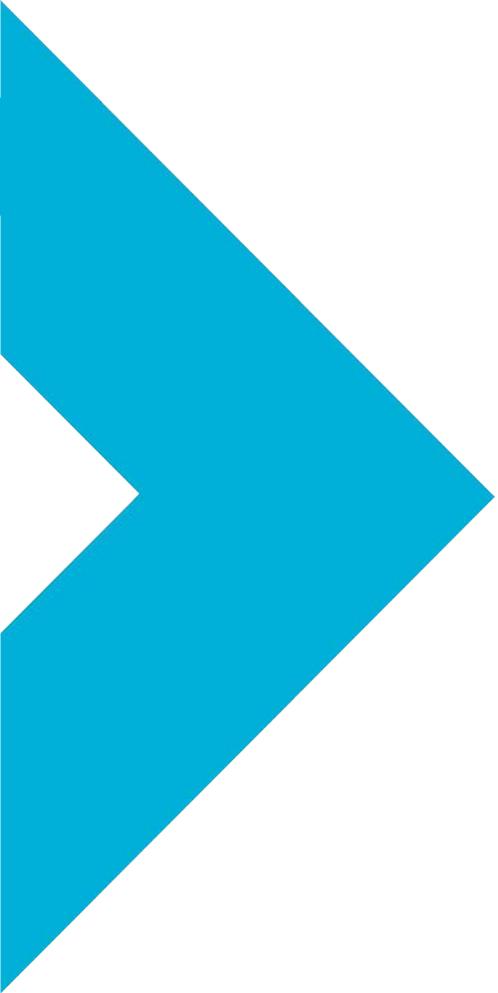
## Barriers identified

- **Regulation:** Regulation poses the most significant near term barrier to full deployment of microgrids. Regulatory regimes are also complex and locationally unique.
- **Technical:** Many off-grid demonstrations exist, however, technical challenges remain.
- **Commercial:** A lack of incentives on incumbents to employ microgrid solutions has led to a bias toward traditional infrastructure solutions.
- **Consumer:** Effective consumer engagement combined with a broad range of consumer facing solutions are critical to successful delivery of microgrid solutions.

# Potential microgrid configurations

ARENA considers microgrids to include the following example arrangements:

- An electricity supply arrangement that could temporarily operate in 'island' mode when physically separated from the major grid
- An electricity supply arrangement, currently connected to a major grid that permanently moves to an isolated supply arrangement
- An electricity supply arrangement that already operates as an isolated grid and will continue to do so



# Program design

# Proposed Program design

ARENA proposes an “open program” to enable

- An application pipeline that supports both projects that are ready to apply for funding promptly or those which need more lead time.
- An opportunity for projects to complete a feasibility study without the risk of missing strict submission deadlines.

ARENA proposes a “One-Stage Assessment” process:

- A “one-stage application” will reduce application time.



# Proposed merit criteria

The RAMP Program will provide grant funding support to applications that meet the following merit criteria:

- Contributes to Program outcomes
- Applicant capability and capacity
- Activity design, methodology, risk and compliance
- Financial viability & co-funding commitment
- Knowledge sharing

ARENA

## PROGRAM GUIDELINES

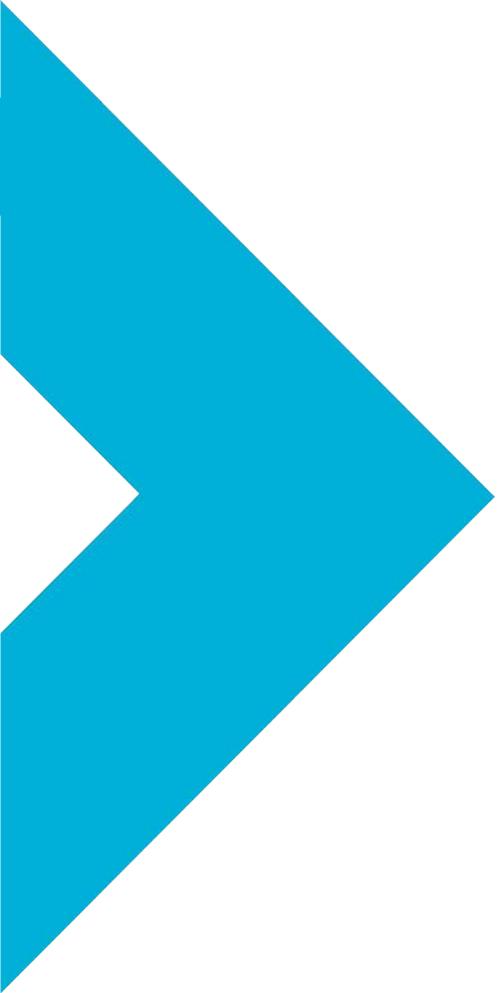
JANUARY 2021

 Australian Government  
Australian Renewable  
Energy Agency

# Proposed Program parameters

ARENA expects projects may receive grant funding within the following parameters:

- Most projects to be funded between [\$500k to \$5 million].
- A maximum of 50% grant of total project cost.
- The average project lifetime to be around [3-4 years]
  - [2-3 years] to complete planning, financing, approvals and construction
  - [1 year] to collect operational data to inform the final reports and knowledge sharing
- [Up to 50%] upfront of the grant amount for each project could be spent in the first FY
- [10+%] should be retained until the last FY of the Program for a final report with at least 12 months of operational data



## Next steps

## Next steps

- Please provide further feedback via Slido or Google Form by 2 July, 2021 (Google Form will be sent via email and hosted on ARENA's website)
- FAQs will be collated and answered on our webpage at launch:  
<https://arena.gov.au/funding/regional-australia-microgrid-pilot-ramp/>

Activity	Target Date
Industry consultation	April-June 2021
Consultation feedback closes	2 July 2021
ARENA to finalise Program design	August 2021
Formal Program launch, Program Guidelines live and applications open	[September 2021]

## Further Feedback or Information

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**Email:** [microgrids@arena.gov.au](mailto:microgrids@arena.gov.au)

**Website:** [arena.gov.au](http://arena.gov.au)