

Australian Renewable Energy Agency (General Funding Strategy) Determination 2019

I, ANGUS TAYLOR, Minister for Energy and Emissions Reduction, make the following Determination under sub-section 20(2) of the *Australian Renewable Energy Agency Act 2011*.

Dated: 9 August 2019

ANGUS TAYLOR

Minister for Energy and Emissions Reduction

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1 Name

This instrument is the *Australian Renewable Energy Agency (General Funding Strategy) Determination 2019*.

2 Commencement

This instrument commences from the time it is made.

3 Authority

This instrument is made under sub-section 20(2) of the Act.

4 Definitions

In this instrument:

***Act*** means the *Australian Renewable Energy Agency Act 2011*.

5 Repeals

This instrument, on the day it comes into force, repeals the *Australian Renewable Energy Agency (General Funding Strategy) Determination 2018*.

6 Approval of General Funding Strategy

For the purposes of sub-section 20(2) of the Act, the General Funding Strategy at Schedule 1 is approved and made on the date of signature of this instrument.

Schedule 1—General Funding Strategy 2019/20 – 2021/22

1 Introduction

The Australian Renewable Energy Agency (ARENA) is a statutory agency established by the Australian Government on 1 July 2012 by the *Australian Renewable Energy Agency Act 2011* (Cth) (ARENA Act), which provides for funding until 2022. This General Funding Strategy (GFS) guides how ARENA provides financial assistance to eligible activities, in accordance with the ARENA Act and subsidiary regulations.

ARENA applies the GFS principles to set investment priorities, which are detailed in the Investment Plan (IP). The GFS reflects how ARENA intends to achieve its objective and takes account of the Government’s priorities as reflected in the Minister’s Statement of Expectations.

When determining which activities will be financially supported, ARENA takes into account the extent to which a proposal advances the investment priorities. ARENA is required to develop and publish a general funding strategy that outlines its principle objectives and priorities for the provision of financial assistance covering a period of three financial years.

The GFS is reviewed each year, updated if necessary, and provided to the Minister for Energy and Emissions Reduction for approval. This GFS remains in force until a subsequent version is approved by the Minister.

ARENA may only provide financial assistance to new activities in accordance with the GFS. While ARENA considers the GFS and IP to be consistent, the GFS takes precedence if any conflict arises between the two.

In addition to meeting its current investment priorities, a significant focus for ARENA is delivering the benefits from past projects. This may include providing financial assistance for extension or complementary projects, as well as knowledge sharing through the collection, storage, analysis, curation and sharing of information, experience and know-how gained from these and related projects.

2 ARENA’s objective

The main objective of the ARENA Act is to:

* improve the competitiveness of renewable energy technologies and
* increase the supply of renewable energy in Australia.

Renewable energy technologies are defined, in the Act, to include hybrid, related or enabling technologies. To pursue this objective, the Act enables ARENA to provide financial assistance and share knowledge to support innovation in renewable energy, as well as in hybrid and other related technologies, such as energy storage.

ARENA’s purpose is to accelerate Australia’s shift to affordable and reliable renewable energy. ARENA enables more renewables and lower emissions by driving innovation and commercialisation. By funding projects and sharing knowledge, we improve the competitiveness of renewable energy and support the transformation of Australia’s energy mix benefiting the Australian economy, industry and wider community.

ARENA’s support for innovation and the commercialisation of renewable energy technology provides options to reduce future greenhouse gas emissions at least cost which enhances Australia’s ability to transition to a low emissions economy.

While ARENA favours investments with the potential to deliver near-term impacts, it also takes account of the potential for larger long-term impacts from investments that could take time to pay off. Accordingly, ARENA takes a long-term view of its objective, aiming to have an impact between 2020 and 2040.

3 Investment priorities

ARENA pursues investment priorities that it has identified as likely to have the most impact on achieving its objective, and publishes them in the IP. In developing these priorities, ARENA takes into account views from a wide range of stakeholders, research and analysis.

ARENA’s approach balances certainty and transparency for applicants with the flexibility to respond to changes in the market, including commercial breakthroughs and policy developments.

The investment priorities also enable ARENA to focus its efforts to ensure it achieves impact in the activities it undertakes.

The IP provides guidance for applicants and informs knowledge sharing activities.

For the period of this GFS, ARENA will place a high priority on integrating renewables into the electricity system, accelerating hydrogen and supporting industry to reduce emissions.

As part of Australia’s contribution to Mission Innovation, ARENA intends to grow its total spending on research and development through the period of this GFS and to at least double ARENA’s 2015-16 research and development spending in 2020-21.

4 Guiding principles for ARENA financial assistance

ARENA helps advance technologies or applications towards commercialisation, particularly by overcoming the early-mover disadvantage that leads to under-investment in new renewable energy options. ARENA financial assistance is therefore expected to deliver changes beyond the funded project, such as to:

* build industry skills, confidence and knowledge, reducing risk for future similar activities
* support emerging and next generation technologies to move along a pathway to commercialisation through the research, development, demonstration and pre-commercial deployment stages
* support business models that are novel in application or to the Australian market, to reduce risk and accelerate technology transfer into the Australian economy
* inform regulatory decisions and standards development by other agencies.

ARENA takes five principles into account when developing and delivering investment priorities. These principles need to be balanced against each other, targeting financial assistance to areas of maximum impact, while allowing for a degree of diversity to cater for less likely but potentially significant advances.

Targeted for maximum impact

ARENA seeks to accelerate renewable energy innovation, thereby increasing productivity of the Australian economy and providing options for the transition to a low emissions future.

ARENA sets its investment priorities to target the areas where it can make the most impact. Among other factors, this means taking into account:

* the potential contribution of an area of work to ARENA’s objective
* the potential for ARENA to progress technologies along the innovation chain faster than would occur without ARENA’s support
* the potential for objectives to be achieved through efforts in other countries, by other agencies or the private sector
* the need for a portfolio of complementary projects in a particular area
* the potential for issues and challenges to be addressed by means other than financial assistance.

ARENA works cooperatively with Commonwealth agencies, state and territory governments, proponents and others, and aims to complement other programs and initiatives to ensure its activities achieve maximum value. In particular, ARENA works closely with the Clean Energy Finance Corporation, the Australian Energy Market Operator, the Australian Energy Market Commission and the Commonwealth Scientific and Industrial Research Organisation to align public effort to further renewable energy innovation.

When setting its priorities and making funding decisions, ARENA seeks to complement and leverage impact from other programs and funding sources, including private finance and the Clean Energy Innovation Fund.

Technology neutral

Within its technology remit of renewable energy, hybrid, related and enabling technologies, ARENA takes a technology-neutral approach to developing its investment priorities. This allows a full range of options to be explored, increasing the chances of the lowest cost and most effective solutions being available in the long term.

While ARENA takes a technology-neutral approach in developing its investment priorities, the priorities may focus on specific technologies or groups of technologies where ARENA assesses it can have the most impact.

Responsive and agile

ARENA aims to be responsive to market conditions, technology developments and industry needs as they arise.

ARENA reviews its IP periodically in light of its existing investment portfolio and developments in technology, market and policies, to best ensure it invests in the highest impact activities.

ARENA aims to be agile, responding swiftly to take advantage of opportunities that could have a transformative impact on renewable energy in Australia. ARENA provides financial assistance to novel ideas and approaches, recognising there is no certainty they will pay off, and expands or contracts support depending on experience.

Diverse

Given the uncertainty and risk inherent in researching, developing and commercialising new energy solutions, ARENA seeks diversity in its investment portfolio to ensure options are kept open for the future and its portfolio has an impact in different policy and economic scenarios. ARENA aims for its overall portfolio to:

* provide renewable energy options for the long term
* demonstrate the potential for renewable energy options to address Australia’s current energy issues.

Accordingly, ARENA looks to ensure its overall portfolio includes activities at different stages of development on the commercialisation pathway:

* research into and development of early-stage technologies that are world-leading or address specific Australian requirements, providing options for the long term
* demonstration of the feasibility of new technologies and business models to take advantage of them
* pre-commercial deployment of technologies where this is expected to improve the competitiveness of future projects, focused on nearer-term application and impact
* studies and knowledge sharing activities that increase the competitiveness or uptake of new energy technologies.

ARENA also achieves diversity in its investment portfolio by providing support across multiple dimensions, for example:

* types of technology
* applications and market uses of technologies
* activities to inform regulatory reform or new business models.

Commercially focused

ARENA’s financial assistance is provided to advance technologies or applications towards commercial readiness, improve business models, address barriers or reduce overall industry costs. ARENA does not fund activities that are commercially viable without ARENA support.

ARENA seeks to provide the minimum financial assistance needed, and in the most appropriate form, to deliver the desired outcome, thus maximising value for public investment.

ARENA-funded activities are required, where appropriate, to share knowledge. This increases the return on public investment by extending the impact of ARENA financial assistance beyond the proponent to the broader industry.

Fig 1 Supporting innovation and commercialisation

This figure, entitled "Figure 1 Supporting innovation and commercialisation", shows the span of ARENA's work.

It depicts a "commercialisation pathway", arranged from left to right into three broad categories of activity. The first stage of the pathway, at the far left, is "research and development". This is further split into two subcategories: first "early stage research" and then "development". The second stage of the pathway, in the centre, is "demonstration". This is further split into first "pilot scale" and then "large scale" subcategories. Finally, the last stage of the pathway, at the far right, is "deployment". This is further split into first "pre-commercial" and then "commercial" subcategories.

The figure indicates that ARENA's work spans almost the entire commercialisation pathway. A box indicates that the entire research and development category is covered by ARENA's "research and development program". Another box indicates that the entire demonstration category, as well as the pre-commercial subcategory of the deployment category, are covered by ARENA's "advancing renewables program". The final commercial subcategory of the deployment category remains uncovered by ARENA. Further boxes indicate that ARENA engages in knowledge sharing activities across all categories, and that ARENA develops new funding programs or new funding rounds across any categories as needed.

Fig 2 A partnership across the innovation chain

This figure, entitled "Figure 2 A partnership across the innovation chain", shows ARENA's contribution to the innovation chain.

It depicts an "innovation chain", arranged from left to right into six broad categories of activity: "research", "development", "demonstration", "deployment", "market accumulation" and "diffusion".

A series of boxes arranged from top to bottom locate a number of entities and Government policies on the innovation chain. ARENA's box indicates that it covers late-stage research, the entirety of development and demonstration and early-stage deployment. This places it in roughly the same range as CSIRO. Most of the other depicted entities and Government policies span the deployment, market accumulation and diffusion stages.