

June 2024

Solar Sunshot

Consultation Summary



Australian Government
Australian Renewable
Energy Agency

ARENA

OVERVIEW

On 28 March 2024, the Federal Government announced it will invest \$1 billion in the new Solar Sunshot Program (the **Program, Sunshot**). The Program seeks to support the commercialisation of Australian solar photovoltaic (**PV**) innovations and to enhance solar manufacturing capacity and capability in Australia.

Throughout April and May 2024, the Australian Renewable Energy Agency (**ARENA**), alongside the Department of Climate Change, Energy, the Environment and Water (**DCCEEW**), consulted with solar PV industry stakeholders in Australia and globally.

Over 100 written submissions were received throughout the process.

This document summarises the findings of the consultation and outlines the related considerations for the Solar Sunshot Program design.

ARENA thanks the respondents for their submissions. Feedback gained through this process is an important input into the final program design.

KEY THEMES AND OUTCOMES

The following key themes emerged from consultation:

1. Market Readiness: Lack of market readiness to bring forward a large portfolio of well-progressed solar manufacturing projects.

Proposed outcome:

Round 1 will be “open”, merit-based, collaborative and a flexible two-stage process:

- Time bound: applicants can apply and be assessed when ready, as opposed to assessed at the same time.
- Merit-based: applications assessed against the merit criteria, rather than being “ranked”.
- Collaborative: ARENA can work with Applicants to develop applications.
- Flexible: 2-stage application process with ARENA retaining ability to waive the EOI stage.

2. Comparative Advantage: Domestic module manufacturing is challenging and there are potentially greater strategic opportunities further up the supply chain.

Proposed outcome:

- Round 1 will be expanded to include broader solar PV manufacturing innovation.
- Round 1 project proposals will need to demonstrate a “pathway to commercialisation”.
- Round 2 will be launched at the same time as Round 1, dedicated to support feasibility studies and FEED work to build a strong pipeline of projects.

3. Funding Support: Market expressed need for multiple types of funding support.

Proposed outcome:

The Program will provide both production credits and capital grants to applicants developing solar manufacturing projects and capital grants to applicants conducting feasibility and FEED studies.

4. **Product Stewardship: Market showed high enthusiasm for end-of-life consideration of solar modules, including recycling and circular design.**

Proposed outcome:

ARENA will continue to investigate options to support product stewardship and end of life considerations, noting the potential for funding in later rounds of the Program, and consider incorporating any recommendations/requirements from DCCEE's e-waste and solar PV product stewardship scheme.

5. **Early-stage solar innovation: Ongoing opportunities for early-stage technology and commercial scale up of solar innovations.**

Proposed outcome:

ARENA will continue to support innovation projects aligned with its Ultra Low-Cost Solar investment priority under the existing Advancing Renewables Program. Sunshot will also support innovation and technology commercialisation but will initially focus on manufacturing projects that are based on mature (proven) technology which serves an established market under Round 1.

DETAIL ON KEY TOPICS

The following table summarises consultation feedback on key topics:

Topic	Summary
Program objectives, merit and eligibility criteria	<ul style="list-style-type: none"> > General support of Program objectives and criteria. > There are trade-offs in delivering a competitive and sustainable industry, supporting local innovation, and building sovereign capabilities. > Merit criteria should be clear within each Funding Round so that potential applicants understand how their project will be assessed against the different objectives of the Program. > Some stakeholders suggested consideration of minimum participation requirements for women, First Nations workers and apprentices.
Initial focus on module manufacturing	<ul style="list-style-type: none"> > Some vertically integrated manufacturers view module production as a logical starting point. > Other stakeholders are concerned that Australia has no comparative advantage in local module production, which may depend permanently on subsidies and may cease production when subsidy programs end.
Supporting other supply chain stages	<ul style="list-style-type: none"> > Although upstream supply chain segments (e.g. polysilicon) may represent a more 'strategic' opportunity where Australia could have a long-term comparative advantage, these stages will require more time to develop projects. > Sunshot should support other aspects of supply chain via funding for Feasibility Studies and FEED work.
Production credits, capital grants and other mechanisms	<ul style="list-style-type: none"> > Production credits were viewed as a key enabler for some projects, however other forms of support (such as capital grants and offtakes) are also considered important in some circumstances. Sunshot should allow for a mix of capital and production support to meet the needs of a broad range of applicants. > Production credits should be structured in a way that encourages long-term economic sustainability. > Other support mechanisms for government to consider include lower tax rates, local content requirements and government procurement.
Pathway to commercialisation	<ul style="list-style-type: none"> > Ensuring projects have a pathway to commercial operation beyond the period of grant support will be critical to the long-term success of Sunshot. > It is not clear whether a price premium will be available for locally produced modules or other products (at large volumes). > The Program should consider the pathway to commercial competitiveness.
Program timing	<ul style="list-style-type: none"> > Some stakeholders support quick timelines, highlighting that longer timelines may prompt companies to invest in other markets. Shorter timeframes may also support workforce transition opportunities in carbon exposed industries. > Other stakeholders highlighted that short time frames limit the ability of manufacturers, suppliers, and other stakeholders to meaningfully engage with the Program and may favour short term opportunities over longer term



strategic opportunities, including more complex projects involving multiple stakeholders or stages.

Foreign direct investment and trade policy

- > Demonstrating enduring commitment to Australian renewable energy manufacturing is important in attracting foreign investment.
 - > Providing clarity on limitations to foreign investment or ownership would support engagement from international proponents.
 - > Some stakeholders highlighted that adjusting trade policies may be a lever to supporting domestic manufacturing, while others highlighted potential downsides from trade policies that favour domestic manufacturing.
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Breadth of supply chain and friendshoring possibilities

- > Developing an end-to-end domestic supply chain with subsidies at each stage will require significant additional concessional government support. Given the Program's fiscal constraints, it will be necessary to focus on a limited number of industry segments.
 - > To support supply chain diversity within the constraints of the Program, Australia could establish trade partnerships with countries that are investing in solar manufacturing. This approach would see the Program allocating funding towards supply chain segments that are complementary to the approach of Australia's trading partners.
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Supply / availability of electricity

- > Cost of electricity is a key consideration for manufacturers, especially in energy intensive upstream segments.
 - > There may be opportunities for the CIS and/or state and territory governments to support lower electricity costs.
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Hubs/regions

- > Co-locating adjacent supply chain segments has strong benefits in terms of efficiencies and ecosystem creation.
 - > Locational benefits can be explored and assessed in a portfolio approach in addition to a project-specific basis.
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End of life (recycling and circularity)

- > Many stakeholders expressed views that solar recycling and other end-of-life treatments should be considered under the Program.
 - > Stakeholders noted that end-of-life may benefit from other policy measures, which are currently under consideration by Government.
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Local communities and First Nations

- > The proposed Merit Criteria received general acceptance from stakeholders in terms of community benefit, however, some flagged that some criteria (such as the need to deliver a fixed community benefits) could present challenges to projects.
 - > Stakeholders suggested the Program, at a minimum, require applications identify the Traditional Owners groups relevant to the project.
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Fostering Australian jobs and skills

- > Australia's current workforce capability in solar manufacturing is limited and targeted measures should be employed to develop them.
 - > Some stakeholders noted possibilities for projects to initially employ skilled foreign workforces while local capability is developed.
 - > Sunshot funding recipients should be expected to provide upskilling programs to Australian workers.
 - > There's an opportunity for government to work with education institutes to ensure the domestic workforce grows in line with industry demand for workers.
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Cell technology lifecycle

- > The rapid evolution of cell technology presents challenges for large-scale capital investment into new markets such as Australia.
- > Existing cell manufacturers noted that cell manufacturing would be an opportunity once other supply chain stages are established.

Definition of “additional” capacity

- > Opportunities to unlock underutilised existing capacity may have merit relative to replacing that capacity with ‘new’ capacity.
 - > The Program should provide for existing production capacity that is additional, but not greenfield, to be supported.
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